EMS/Trauma Committee Meeting

October 16, 2019 10 am - 12 pm

ZOOM Meeting

Conference Call Option:

(800) 882-3610 Access Code: 1953936#

Meeting Book - EMS/Trauma Committee Meeting

EMS/Trauma Committee Meeting Agenda - October 16, 2019

12:00 PM   V. ADJOURNMENT

October 16, 2019

TO: CHA EMS/Trauma Committee Members

FROM: BJ Bartleson, RN, MS, NEA-BC, Vice President Nursing and Clinical Services

SUBJECT: ED Data Reporting on Emergency Use in California

SUMMARY

CHA continues to explore methods to collect and understand California ED utilization and related issues across the state. CHA is broadening its data analytics capability. Simultaneously, the CHA HQI team is working on collecting OSHPD level ED data at multiple levels on a timelier basis. Collective Medical Technology (EDIE) are collecting information along with Reddinett. Many individual hospitals and local LEMSA's or counties also collect ED information particularly as it pertains to ED patient holds. At our last CHA EMS/T meeting, we continued to explore what data is being collected, what we need, and how to construct a definitive picture on what's happening in California's ED's today.

CHA Data Analytics is exploring opportunities to help us further pursue ED data. Conversations around three predominant issues are occurring relative to how and who we use to collect the information. The three areas of focus are: 1) APOD next steps information, 2) Behavioral health patient ED holds due to lack of behavioral health bed availability, and, 3) lack of inpatient discharge post-acute care bed availability.   We are trying to determine how to best survey members so that we can quantify the numerous factors impacting ambulance off-load times as well as issues affecting hospital throughput more generally in both the inpatient and ED setting. Questions such as who and how to survey, do we survey a point in time or over time, deliverables, timeframes, etc. are all being discussed.   Attached is a sample study from the Maryland Hospital Association. They did a deep dive survey with data collection over a period of time with a behavioral health focus.

In addition, AB 774 was signed by the Governor and will require the Hospital Discharge Abstract Data Record to note, when the source of admission is an emergency department, the service date and time, and the date and time of release from emergency care. In addition, the Emergency Care Data Record will include the date and time of service and date and time of release from emergency care. OSHPD will formulate regulations and has asked CHA to participate with member hospitals on determining standardized definitions.

In the meantime, CHA is determining the best way to obtain the aforementioned information either through member survey or outside vendor support or both.

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Corporate Members: Hospital Council of Northern and Central California, Hospital Association of Southern California, and Hospital Association of San Diego and Imperial Counties

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ACTION REQUESTED

➢ Discussion

DISCUSSION QUESTIONS

1. Are there any further data fields you would like to explore and or discuss?
2. Would you be willing to assist with the AB 774 OSHPD work group once it's developed?
3. Are there any new data collection requests coming from your LEMSA or County?

Attachments: AB 774
               AB 774 Analysis
               Maryland Hospital Association ED Report

BJB:br

CHAPTER _____

An act to amend Sections 128735 and 128736 of the Health and Safety Code, relating to health facilities.

AB 774, Reyes. Health facilities: reporting.

Existing law requires an organization that operates, conducts, owns, or maintains a health facility and its officers to file various reports with the Office of Statewide Health Planning and Development, including for hospitals only, a Hospital Discharge Abstract Data Record that includes specified information, including the source of the patient's admission. Existing law also requires hospitals to file an Emergency Care Data Record for each patient encounter in a hospital emergency department with the office. Existing law requires the record to contain specified patient and health data information, including the service date.

This bill would additionally require the Hospital Discharge Abstract Data Record to note, when the source of admission is an emergency department, the service date and time and the date and time of release from emergency care. The bill would further require the Emergency Care Data Record to include the date and time of service and date and time of release from emergency care.

This bill would incorporate additional changes to Section 128735 of the Health and Safety Code proposed by SB 343 to be operative only if this bill and SB 343 are enacted and this bill is enacted last.

The people of the State of California do enact as follows:

SECTION 1.   It is the intent of the Legislature in enacting this act for service time reporting to accurately reflect the time an individual spends in emergency department care.

SEC. 2.   Section 128735 of the Health and Safety Code is amended to read:

128735.   An organization that operates, conducts, owns, or maintains a health facility, and the officers thereof, shall make and file with the office, at the times as the office shall require, all of the following reports on forms specified by the office that shall be

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in accord, if applicable, with the systems of accounting and uniform reporting required by this part, except that the reports required pursuant to subdivision (g) shall be limited to hospitals:

(a) A balance sheet detailing the assets, liabilities, and net worth of the health facility at the end of its fiscal year.

(b) A statement of income, expenses, and operating surplus or deficit for the annual fiscal period, and a statement of ancillary utilization and patient census.

(c) A statement detailing patient revenue by payer, including, but not limited to, Medicare, Medi-Cal, and other payers, and revenue center, except that hospitals authorized to report as a group pursuant to subdivision (d) of Section 128760 are not required to report revenue by revenue center.

(d) A statement of cashflows, including, but not limited to, ongoing and new capital expenditures and depreciation.

(e) A statement reporting the information required in subdivisions (a), (b), (c), and (d) for each separately licensed health facility operated, conducted, or maintained by the reporting organization, except those hospitals authorized to report as a group pursuant to subdivision (d) of Section 128760.

(f) Data reporting requirements established by the office shall be consistent with national standards, as applicable.

(g) A Hospital Discharge Abstract Data Record that includes all of the following:

(1) Date of birth.

(2) Sex.

(3) Race.

(4) ZIP Code.

(5) Preferred language spoken.

(6) Patient social security number, if it is contained in the patient's medical record.

(7) Prehospital care and resuscitation, if any, including all of the following:

(A) "Do not resuscitate" (DNR) order on admission.

(B) "Do not resuscitate" (DNR) order after admission.

(8) Admission date.

(9) Source of admission. When the source of admission is an emergency department, the service date and time and the date and time of release from emergency care shall also be noted.

(10) Type of admission.

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(11) Discharge date.

(12) Principal diagnosis and whether the condition was present on admission.

(13) Other diagnoses and whether the conditions were present on admission.

(14) External causes of morbidity and whether present on admission.

(15) Principal procedure and date.

(16) Other procedures and dates.

(17) Total charges.

(18) Disposition of patient.

(19) Expected source of payment.

(20) Elements added pursuant to Section 128738.

(h) It is the intent of the Legislature that the patient's rights of confidentiality shall not be violated in any manner. Patient social security numbers and other data elements that the office believes could be used to determine the identity of an individual patient shall be exempt from the disclosure requirements of the California Public Records Act (Chapter 3.5 (commencing with Section 6250) of Division 7 of Title 1 of the Government Code).

(i) A person reporting data pursuant to this section shall not be liable for damages in an action based on the use or misuse of patient-identifiable data that has been mailed or otherwise transmitted to the office pursuant to the requirements of subdivision (g).

(j) A hospital shall use coding from the International Classification of Diseases in reporting diagnoses and procedures.

SEC. 2.5. Section 128735 of the Health and Safety Code is amended to read:

128735. An organization that operates, conducts, owns, or maintains a health facility, and the officers thereof, shall make and file with the office, at the times as the office shall require, all of the following reports on forms specified by the office that are in accord, if applicable, with the systems of accounting and uniform reporting required by this part, except that the reports required pursuant to subdivision (g) shall be limited to hospitals:

(a) A balance sheet detailing the assets, liabilities, and net worth of the health facility at the end of its fiscal year.

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(b) A statement of income, expenses, and operating surplus or deficit for the annual fiscal period, and a statement of ancillary utilization and patient census.

(c) A statement detailing patient revenue by payer, including, but not limited to, Medicare, Medi-Cal, and other payers, and revenue center.

(d) A statement of cashflows, including, but not limited to, ongoing and new capital expenditures and depreciation.

(e) (1) A statement reporting the information required in subdivisions (a), (b), (c), and (d) for each separately licensed health facility operated, conducted, or maintained by the reporting organization.

(2) Notwithstanding paragraph (1), a health facility that receives a preponderance of its revenue from associated comprehensive group practice prepayment health care service plans and that is operated as a unit of a coordinated group of health facilities under common management may report the information required pursuant to subdivisions (a) and (d) for the group and not for each separately licensed health facility.

(f) Data reporting requirements established by the office shall be consistent with national standards, as applicable.

(g) A Hospital Discharge Abstract Data Record that includes all of the following:

(1) Date of birth.

(2) Sex.

(3) Race.

(4) ZIP Code.

(5) Preferred language spoken.

(6) Patient social security number, if it is contained in the patient's medical record.

(7) Prehospital care and resuscitation, if any, including all of the following:

(A) "Do not resuscitate" (DNR) order on admission.

(B) "Do not resuscitate" (DNR) order after admission.

(8) Admission date.

(9) Source of admission. When the source of admission is an emergency department, the service date and time and the date and time of release from emergency care shall also be noted.

(10) Type of admission.

(11) Discharge date.

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(12) Principal diagnosis and whether the condition was present on admission.

(13) Other diagnoses and whether the conditions were present on admission.

(14) External causes of morbidity and whether present on admission.

(15) Principal procedure and date.

(16) Other procedures and dates.

(17) Total charges.

(18) Disposition of patient.

(19) Expected source of payment.

(20) Elements added pursuant to Section 128738.

(h) It is the intent of the Legislature that the patient's rights of confidentiality shall not be violated in any manner. Patient social security numbers and other data elements that the office believes could be used to determine the identity of an individual patient shall be exempt from the disclosure requirements of the California Public Records Act (Chapter 3.5 (commencing with Section 6250) of Division 7 of Title 1 of the Government Code).

(i) A person reporting data pursuant to this section shall not be liable for damages in an action based on the use or misuse of patient-identifiable data that has been mailed or otherwise transmitted to the office pursuant to the requirements of subdivision (g).

(j) A hospital shall use coding from the International Classification of Diseases in reporting diagnoses and procedures.

(k) On or before July 1, 2021, the office shall promulgate regulations as necessary to implement subdivision (e). A health facility that receives a preponderance of its revenue from associated comprehensive group practice prepayment health care service plans and that is operated as a unit of a coordinated group of health facilities under common management shall comply with the reporting requirements of subdivisions (b), (c), and (e) once the office finalizes related regulations.

SEC. 3. Section 128736 of the Health and Safety Code is amended to read:

128736. (a) Each hospital shall file an Emergency Care Data Record for each patient encounter in a hospital emergency department. The Emergency Care Data Record shall include all of the following:

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(1) Date of birth.

(2) Sex.

(3) Race.

(4) Ethnicity.

(5) Preferred language spoken.

(6) ZIP Code.

(7) Patient social security number, if it is contained in the patient's medical record.

(8) Service date and time.

(9) Principal diagnosis.

(10) Other diagnoses.

(11) External causes of morbidity.

(12) Principal procedure.

(13) Other procedures.

(14) Disposition of patient.

(15) Date and time of release from emergency care.

(16) Expected source of payment.

(17) Elements added pursuant to Section 128738.

(b) It is the expressed intent of the Legislature that the patient's rights of confidentiality shall not be violated in any manner. Patient social security numbers and any other data elements that the office believes could be used to determine the identity of an individual patient shall be exempt from the disclosure requirements of the California Public Records Act (Chapter 3.5 (commencing with Section 6250) of Division 7 of Title 1 of the Government Code).

(c) No person reporting data pursuant to this section shall be liable for damages in any action based on the use or misuse of patient-identifiable data that has been mailed or otherwise transmitted to the office pursuant to the requirements of subdivision (a).

(d) Data reporting requirements established by the office shall be consistent with national standards as applicable.

SEC. 4. Section 2.5 of this bill incorporates amendments to Section 128735 of the Health and Safety Code proposed by both this bill and Senate Bill 343. That section of this bill shall only become operative if (1) both bills are enacted and become effective on or before January 1, 2020, (2) each bill amends Section 128735 of the Health and Safety Code, and (3) this bill is enacted after Senate Bill 343, in which case Section 2 of this bill shall not become operative.

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CONCURRENCE IN SENATE AMENDMENTS
AB 774 (Reyes)
As Amended August 30, 2019
Majority vote

SUMMARY:

Revises the data regarding patient encounters in the emergency department (ED), in the Emergency Care Data Record (ECDR) that is filed with the Office of Statewide Health Planning and Development (OSHPD) by requiring the time of service to be reported, and the date and time of release from emergency care.

The Senate Amendments:

1) Delete the requirement that hospitals report the name of the facility to which a patient was released or transferred, and instead require the report to include the type of facility to which a patient was released or transferred, including specified mental health facilities.

2) State the intent of the Legislature for service time reporting to accurately reflect the time an individual spends in the ED.

3) Delete the sunset date, and incorporate double jointing amendments with SB 343 (Pan) of the current legislative session to prevent chaptering out conflicts

COMMENTS:

According to the 2018 California Health Care Foundation report, "Mental Health in California: For Too Many, Care Not There," mental health disorders are among the most common health conditions faced by Californians. Nearly one in six California adults experience a mental illness of some kind, and one in 24 have a serious mental illness that makes it difficult to carry out major life activities. One in 13 children has an emotional disturbance that limits participation in daily activities. The report also notes that while the supply of acute psychiatric beds may have stabilized after a long period of decline, ED visits resulting in an inpatient psychiatric admission increased by 30% between 2010 and 2015.

OSHPD reports. Hospitals are required to provide data to OSHPD in various reports including the ECDR and the Hospital Discharge Abstract Data Record (HDADR). The two reports contain many of the same data points.

1) *HDADR.* Every six months, hospitals submit abstracted information from individual patient records, which include data on the patient's ZIP code, gender, birthdate, and preferred language; status at admission; and, diagnoses, treatments/procedures, total charges, and expected source of payment. To protect individual patient confidentiality, data are aggregated into data products that are available on an annual basis.

2) *ECDR.* Every three months, EDs submit abstracted information from individual patient records that include data on the patient's zip code, gender, birthdate, principal language, service date, diagnoses, cause of injury, treatments/procedures, and expected source of payment.

OSHPD uses the data provided in these records to compile a variety of reports regarding the frequency of various procedures, causes of injury or morbidity, total number of discharges and average charge per hospital stay. OSHPD also compiles "Pivot Profiles" which display summaries of the inpatients treated in each hospital. The summary data include discharges, discharge days, average length of stay, age groups, race groups, sex, expected payer, type of care, DNR orders, admission source, admission type, discharge disposition, including if a patient is discharged to a psychiatric facility, principal diagnosis groups, principal procedure groups, and principal external cause of injury/morbidity groups. The data can also be summarized statewide or for a specific hospital, county, bed size grouping, or other type of control.

According to the Author:
This bill is needed to establish a foundation of data in order to better understand and address the problem of psychiatric boarding wait times. The author states that this is an issue that affects ED staff, ED patients, and psychiatric patients awaiting transfer. The author concludes that this bill is a recognition of the problem and is a necessary first step to continue future conversations and search for policy solutions to ensure that Californians have timely access to mental health services.

Arguments in Support:
The California Chapter of the American College of Emergency Physicians (California ACEP) is the sponsor of this bill and states that when people with mental illnesses are in crisis, they seek care in the same way patients with other urgent health conditions do. They go to the nearest ED. California ACEP notes that due to a variety of factors, many patients spend a substantial period of time in the ED awaiting transfer, and this prolonged waiting period is referred to as "psychiatric boarding." California ACEP concludes that this bill would require the reporting of psychiatric boarding times for adult and pediatric patients, in order to develop a better understanding of the scope of the problem.

Arguments in Opposition:
The California Hospital Association (CHA) opposes this bill and states that the proposed reporting system does not collect accurate data on this problem and will not yield valid results. CHA notes that the bill proposes to use data gathered via hospitals' current reporting system, developed by OSHPD, however the data is insufficient. For example, as much as 15% of patients who are later admitted to the hospital present through the ED, but because these patients are reflected in inpatient data elements, they are not included in OSHPD's ED discharge data, therefore, the data's accuracy related to ED usage is compromised and invalid. CHA also states that this bill presents a costly un-funded mandate, requiring significant information technology and medical record software changes, and training costs.

FISCAL COMMENTS:

None

VOTES:

ASM HEALTH: 12-1-2
YES: Wood, Aguiar-Curry, Bonta, Burke, Carrillo, Limón, McCarty, Nazarian, Ramos, Rodriguez, Santiago, Waldron
NO: Bigelow
ABS, ABST OR NV: Mayes, Flora

ASSEMBLY FLOOR: 70-0-10
YES: Aguiar-Curry, Bauer-Kahan, Berman, Bloom, Boerner Horvath, Bonta, Brough, Burke, Calderon, Carrillo, Cervantes, Chau, Chen, Chiu, Choi, Chu, Cooley, Cooper, Cunningham, Daly, Diep, Eggman, Frazier, Friedman, Gabriel, Cristina Garcia, Gipson, Gloria, Gonzalez, Gray, Grayson, Holden, Irwin, Jones-Sawyer, Kalra, Kamlager-Dove, Kiley, Lackey, Levine, Limón, Low, Maienschein, Mayes, McCarty, Medina, Mullin, Muratsuchi, Nazarian, O'Donnell, Patterson, Petrie-Norris, Quirk, Quirk-Silva, Ramos, Reyes, Luz Rivas, Robert Rivas, Rodriguez, Blanca Rubio, Salas, Santiago, Smith, Mark Stone, Ting, Voepel, Waldron, Weber, Wicks, Wood, Rendon
ABS, ABST OR NV: Arambula, Bigelow, Dahle, Flora, Fong, Gallagher, Eduardo Garcia, Mathis, Melendez, Obernolte

SENATE FLOOR: 33-5-2
YES: Allen, Archuleta, Atkins, Beall, Bradford, Caballero, Chang, Dodd, Durazo, Galgiani, Glazer, Lena Gonzalez, Hertzberg, Hill, Hueso, Hurtado, Jackson, Jones, Leyva, McGuire, Mitchell, Monning, Moorlach, Pan, Portantino, Roth, Rubio, Skinner, Stern, Umberg, Wieckowski, Wiener, Wilk
NO: Bates, Grove, Morrell, Nielsen, Stone
ABS, ABST OR NV: Borgeas, Dahle

UPDATED:

VERSION: August 30, 2019

CONSULTANT: Lara Flynn / HEALTH / (916) 319-2097   FN: 0002183

Behavioral Health Patient Delays in Emergency Departments

Results from the Maryland Hospital Association Behavioral Health Data Collection

Authors: Kristin Dillon, PhD, Darcie Thomsen, MSW, and Barry Bloomgren Jr., MBA

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Behavioral Health Emergency Department Delays in Maryland

Results from the Maryland Hospital Association Behavioral Health Capacity Study

The Maryland Hospital Association contracted with Wilder Research to conduct a study of behavioral health emergency department (ED) delays with 29 hospitals across Maryland. Discharge or transfer delays are defined as when a patient remains in the emergency department longer than four hours from when a decision is made about where they should go (i.e., a disposition decision). This study presents the number and rate of behavioral health discharge or transfer delays, the number of hours or days the patient remained in the emergency department and the reasons for delays. This summary includes data collected from April 15, 2019 through May 31, 2019.

Rates of Emergency Department Delays

2,009 patients or **42 percent of behavioral health patients** experienced a discharge or transfer delay during the study.

Collectively, these patients were delayed for **1,676 days,** with an average of **20 hours** per patient. (Median=11 hours)

These delays account for **48%** of the time behavioral health patients spent in the ED.

Patients under age 18 tended to have delays **2x as long** (median=18 hours) as those **age 18 and over** (median=9 hours). **This difference is statistically significant.**

Hospital's most frequently recommended Post-discharge setting

	Patients WITHOUT A DELAY (N=2,739)	Patients WITH A DELAY (N=2,009)
Inpatient acute psychiatric unit	20%	69%
Home with supportive services	66%	11%
Inpatient specialty psychiatric unit (i.e., Sheppard Pratt Health System, Brook Lane)	1%	7%
Residential chemical dependency treatment	5%	4%

Top Reasons for Emergency Department Delays

Note: Patients may have more than one reason for a delay during their emergency department stay, but each delay hour is only associated with one reason at a time.

	Number of DELAY DAYS (N=1,254)	Percentage of PATIENTS (N=1,630)
Waiting for bed space in placement setting	538	45%
Waiting for agency to accept, process, or deny referral	197	28%
Medicaid or ambulance transportation delay	81	15%
Placement setting refuses or denies patient due to capacity in the setting	186	14%
Delay in creating or implementing care plan or referral in the ED	53	7%

Participating hospitals

Adventist Healthcare—Shady Grove Medical Center

Anne Arundel Medical Center

Carroll Hospital Center

Frederick Regional Health System

Garrett Regional Medical Center

Greater Baltimore Medical Center

Holy Cross Silver Spring

Holy Cross Germantown

Howard County General Hospital

Johns Hopkins Bayview Medical Center

MedStar Franklin Square Medical Center

MedStar Good Samaritan Hospital

Medstar Montgomery Medical Center

MedStar Southern Maryland Hospital Center

MedStar St. Mary's Hospital

MedStar Union Memorial Hospital

Mercy Medical Center

Meritus Medical Center

Northwest Hospital

Peninsula Regional Medical Center

Saint Agnes Healthcare

Sinai Hospital of Baltimore

Suburban Hospital

The Johns Hopkins Hospital (Adults and Children's Center)

University of Maryland Baltimore Washington Medical Center

University of Maryland Medical Center

University of Maryland Medical Center Midtown Campus

University of Maryland Prince George's Hospital Center

University of Maryland St. Joseph Medical Center

Contents

Figures

Background

Study purpose

With Maryland's hospitals on the front line of the behavioral health crisis, and often the providers of last resort for people having no place else to turn, it is essential to ensure an adequate supply and distribution of providers throughout the care system. In 2018, the Maryland Hospital Association conducted a study to examine the prevalence of and reasons associated with delays in inpatient care for behavioral health patients. In that study, about three-quarters of patients (72%) were admitted from an emergency department. Delays can happen in both the inpatient and emergency department care. These delays inhibit the optimal provision of care and may cause stress for patients, their families, and providers. In addition, hospital-based care is more expensive than most community-based care.

To address this issue, Wilder Research conducted a study to determine reasons for delays in the discharge or transfer of behavioral health patients in emergency departments, including alternative settings for patients if they were available. This study, conducted at the request of the Maryland Hospital Association, can inform policy and practice within the behavioral health infrastructure in Maryland.

Study description

Wilder Research collected data from 29 participating hospitals throughout Maryland to determine reasons for delays in emergency department discharge or transfer for behavioral health patients. Hospitals were able to define which patients they identified as behavioral health patients for this study. In most cases, these patients had either a primary or secondary behavioral health diagnoses. Discharge or transfer delays are defined as when a patient remains in the emergency department longer than four hours after a decision is made about where they should go (i.e., a disposition decision). This definition aligns with the Joint Commission patient flow standards (Standard LD.04.03.11), which identified a goal for moving patients out of the emergency department within four hours of making the decision to admit or transfer the patient in the interest of patient safety and quality of care.[1] Stays longer than this four-hour timeframe are commonly considered "boarding" in the emergency department.

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[1] The Joint Commission. (2013). The "patient flow standard" and the 4-hour recommendation. *Joint Commission Perspectives 33*(6). Retrieved from https://www.jointcommission.org/assets/1/18/S1-JCP-06-13.pdf

All hospitals used an online tool to enter data about patients experiencing discharge or transfer delays. All patients were identified by a random identification number exclusively used for the study to protect their confidentiality. This report reflects results for the 45-day data collection period, from April 15 through May 31, 2019. See appendix A3 for more details about the study design.

Discharge or transfer delays

Rate of delays

Across the 29 hospitals' emergency departments, 4,748 behavioral health patients were treated in the 45-day study period. Of those, 2,009 patients, or 42%, experienced a discharge or transfer delay, meaning they were still in the emergency department four hours after a disposition decision had been made. Collectively, these patients were delayed for 40,211 hours (1,676 days), with an average of 20 hours per delay patient (median=11 hours). These delays accounted for 48% of the time behavioral health patients spent in the emergency department. On average, patients with a delay spent about four times as long in the emergency department (average=31 hours) as those without a delay (average=8 hours).

In order to estimate the full impact of these findings across the Maryland hospital system, we extrapolated the data to a full year of behavioral health emergency department patients throughout the state. In 2017, Maryland Hospital Association records included 474,361 behavioral health emergency department patients across the state. If the rate of discharge or transfer delays found in this study was extrapolated to all behavioral health patients based on 2017 numbers, approximately 199,232 patients would experience delays. Using the average delay of 20 hours found in this study, this results in a total of 166,026 days of emergency department care that could, instead, be in an alternative setting. These estimates should be interpreted with caution since the study looked at a 45-day snapshot of emergency department visits and may not represent the full year's rate of delays.

Reasons for delays

The study asked hospitals to identify the reasons for a discharge or transfer delay from a list of 20 possible reasons (Figure 1). The detailed definitions of these reasons can be found in appendix A1. It should be noted that 19% of patients with a discharge delay did not have an identified reason for the delay. Therefore, there were 336 days of delay (21%) that were not attributed to a specific reason and likely represent a combination of reasons.

Of the reasons identified, the most common were delays within placement settings. The single reason that affected the most patients was the lack of bed space in a placement setting (45%). This reason accounted for 538 delay days, which is over 40% of all delay days. The most common setting this reason applied to was inpatient psychiatric units (84%), followed by inpatient specialty psychiatric units (11%).

In addition, over one-quarter of patients (28%) experienced a delay due to waiting for a placement setting to accept, process, or deny a referral, which accounted for 197 delay days.

This reason most commonly applied to inpatient psychiatric units (88%), followed by specialty psychiatric units (6%).

The other reason associated with a high number of delay days was the placement setting denying patient due to capacity, which accounted for 186 days of delay. Similar to the other reasons listed here, a lack of capacity was most common for inpatient psychiatric units (87%) and specialty psychiatric units (11%).

Although affecting only 6% of delay days, ambulance or Medicaid transportation delays affected 15% of patients. Other reasons were less common, but still important for the patients experiencing them, particularly when they result in delays up to days at a time.

1.   Reasons for discharge or transfer delays

Delays within placement settings	Percentage of patients (N=1,630)[a]	Number of delay days (N=1,254)[a]	Percentage of delay days (N=1,254)[a]
Waiting for bed space in placement setting	45%	538	43%
Waiting for agency to accept, process, or deny referral	28%	197	16%
Placement setting refuses or denies patient due to capacity in the setting	14%	186	15%
Placement setting refuses or denies patient due to patient characteristics	4%	65	5%
Off hours (nights/weekends) when coordination not available in placement setting or outpatient services	2%	14	1%
Lack of access to outpatient services necessary for patient to return home	1%	13	1%
Lack of housing/housing instability	1%	4	<1%
Patient's residential facility refuses to take them back	<1%	10	1%
Delays due to authorization or government systems			
Medicaid or ambulance transportation delay	15%	81	6%
Awaiting insurance or financial benefit activation or coverage	2%	9	1%
Awaiting guardianship decisions or execution	1%	18	1%
Insurance denies authorization for placement	<1%	6	<1%
Waiting for CSA <u>outside</u> county of responsibility to identify and make referral	<1%	2	<1%
Waiting for Core Service Agency (CSA) <u>inside</u> county of responsibility to identify and make referral	<1%	1	<1%
Internal hospital delays			
Delay in creating or implementing care plan or referral in the ED	7%	53	4%
Off hours (nights/weekends) when coordination not available in the ED	4%	22	2%

Note. A patient can only have one reason per delay hour, but a patient can have different reasons attached to different delay hours during their emergency department stay. Thus, patients can have more than one reason for delays and the total exceeds 100%. The total number of days per reason may not add up to the total number of delay days due to rounding.

[a] There were 379 patients that met the definition of a discharge or transfer delay (they were in the ED more than four hours after a disposition decision), but staff did not identify a reason for the delay, so they and their 336 delay days are not included in this figure.

1. Reasons for discharge or transfer delays (continued)

Patient or family delays	Percentage of patients (N=1,630)[a]	Number of delay days (N=1,254)[a]	Percentage of delay days (N=1,254)[a]
Personal transportation delays or family inability to pick patient up	3%	12	1%
Patient non-adherence to plan of care/refusal of placement	2%	10	1%
Family refusal to pick patient up or execute plan of care	1%	13	1%
Delay due to patient legal involvement, including civil commitment or law enforcement	<1%	1	<1%

Note. A patient can only have one reason per delay hour, but a patient can have different reasons attached to different delay hours during their emergency department stay. Thus, patients can have more than one reason for delays and the total exceeds 100%. The total number of days per reason may not add up to the total number of delay days due to rounding.

[a] There were 379 patients that met the definition of a discharge or transfer delay (they were in the ED more than four hours after a disposition decision), but staff did not identify a reason for the delay, so they and their 336 delay days are not included in this figure.

Placement settings associated with discharge delays

Emergency department staff were asked to identify the recommended placement setting for the patient, meaning the place to which they would discharge or transfer the patient if space or supports were available. It should be noted that this is the recommended placement setting when the disposition decision is made and it could change during a patient's stay.

Staff recommended placement settings

There were some notable differences in the recommended placement settings for patients, based on whether or not they experienced a discharge or transfer delay. The most common setting was an inpatient psychiatric unit for patients with a discharge or transfer delay (69%) and home with support services (66%) for those without a delay (Figure 2). Overall, these two settings combined were the recommended settings for 84% of patients in the study.

2. Staff recommended placement settings

	Total patients (4,748)	Patients without a delay (N=2,739)	Patients with a delay (N=2,009)
Home with supportive services	43%	66%	11%
Inpatient acute psychiatric unit	41%	20%	69%
Residential chemical dependency treatment	5%	5%	4%
Inpatient specialty psychiatric unit (i.e., Sheppard Pratt Health System, Brook Lane)	4%	1%	7%
Inpatient acute medical hospital unit	2%	2%	2%
Crisis residential program/crisis bed	2%	1%	2%

2. Staff recommended placement settings (continued)

	Total patients (4,748)	Patients without a delay (N=2,739)	Patients with a delay (N=2,009)
Group home with services	1%	1%	1%
Supported housing program (mental health)	1%	1%	1%
Other residential facility	1%	1%	1%
Residential Rehabilitation Program (RRP)	1%	1%	<1%
Assisted living facility (ALF)	<1%	<1%	1%
Skilled nursing facility (SNF) or nursing home	<1%	<1%	<1%
Child or adult foster care	<1%	<1%	<1%
State psychiatric hospital (i.e., Spring Grove Hospital Center, Springfield Hospital Center, Clifton T. Perkins)	<1%	<1%	<1%
Child/adolescent residential treatment center in Maryland	<1%	<1%	<1%
Child/adolescent residential treatment center outside of Maryland	<1%	0%	<1%
State chronic hospital (i.e., Deer's Head Hospital Center and Western Maryland Hospital Center)	0%	0%	0%

Support services needed for discharge home

Given the need or desire for many patients to be discharged home, the support services most needed to allow for this included individual therapy (72%), medication management (49%), and outpatient chemical dependency treatment (14%; Figure 3). The supports needed for discharge home were similar for patients with and without a delay, though those with a delay were slightly more likely to need medication management, outpatient chemical dependency treatment, and a psychiatric rehabilitation program.

3. Specific support services needed for release home

	Percentage of patients with home as recommended placement setting		
	Total patients (4,748)	Patients without a delay (N=1,781)	Patients with a delay (N=223)
Individual therapy	72%	72%	73%
Medication management with psychiatrist/psychiatric nurse practitioner	49%	48%	57%
Outpatient chemical dependency treatment	14%	13%	23%
Intensive outpatient (including partial hospitalization and day hospital)	11%	11%	10%
ACT services	4%	4%	3%
Psychiatric rehabilitation program (PRP)	3%	3%	6%
Family support services (e.g., in-home caregivers or respite care)	3%	3%	3%
Other supports needed in order to discharge home	6%	6%	7%

Note. Patients could have multiple needed supports for home, so total percentage exceeds 100.

Discharge settings

Overall, 87% of patients were either discharged home or to an inpatient unit (Figure 4). Two-thirds of patients with a delay (67%) were transferred to an inpatient psychiatric unit, while two-thirds of patients without a delay (69%) were discharged home. The proportion of patients discharged to other locations was consistent between those with and without a delay, with the exception of an inpatient specialty psychiatric unit. Five percent of those with a delay ended up in a specialty psychiatric unit, while 1% of those without a delay ended up there.

4. Discharge location

	Total patients (4,748)	Patients without a delay (N=2,739)	Patients with a delay (N=2,009)
Home with supportive services	47%	69%	17%
Inpatient acute psychiatric unit	40%	20%	67%
Inpatient specialty psychiatric unit (i.e., Sheppard Pratt Health System, Brook Lane)	3%	1%	5%
Inpatient acute medical hospital unit	3%	2%	3%
Residential chemical dependency treatment	2%	2%	3%
Skilled nursing facility (SNF) or nursing home	<1%	<1%	<1%
Group home with services	1%	1%	1%
Crisis residential program/crisis bed	1%	1%	1%
Homeless/shelter	1%	1%	<1%
Corrections/jail	<1%	1%	<1%
Assisted living facility (ALF)	<1%	<1%	<1%
Residential Rehabilitation Program (RRP)	<1%	<1%	<1%
Child/adolescent residential treatment center in Maryland	<1%	<1%	<1%
Child or adult foster care	<1%	<1%	<1%
State chronic hospital (i.e., Deer's Head Hospital Center and Western Maryland Hospital Center)	<1%	<1%	<1%
Supported housing program (mental health)	<1%	<1%	<1%
Other residential facility	<1%	<1%	<1%
Other	<1%	<1%	<1%
State psychiatric hospital (i.e., Spring Grove Hospital Center, Springfield Hospital Center, Clifton T. Perkins)	<1%	0%	<1%
Child/adolescent residential treatment center outside of Maryland	0%	0%	0%

Most discharged patients (83%) were discharged to the staff recommended placement setting identified by staff (Figure 5). In particular, over 90% of patients who staff felt should go home or to an inpatient psychiatric unit ended up in that setting. Patients without a delay were slightly more likely to be discharged to the recommended setting (88%) compared to those with a delay (81%). The recommended placement settings in which the smallest proportions of patients ended up there were: supported housing (11%), Residential Rehabilitation Program (25%), residential chemical dependency treatment (38%), and crisis residential program (43%). This means that patients with these recommended settings tended to end up in other settings. In addition, those with a delay were less likely to end up in their recommended group home setting and more likely to end up in their recommended assisted living facility, compared to those without a delay. It should be noted that for both groups, patients who did not go to their recommended placement setting were most likely to instead go home with support services.

5. Patients discharged to staff recommended placement setting

	Total number of patients with this as their recommended placement setting	Percentage of patients with this setting as both their staff recommended placement setting and discharge setting		
		Total patients	Patients without a delay	Patients with a delay
Home with supportive services	2,016	95%	97%	86%
Inpatient acute psychiatric unit	1,936	91%	92%	90%
Inpatient acute medical hospital unit	97	75%	81%	65%
Group home with services	47	68%	77%	42%
Inpatient specialty psychiatric unit (i.e., Sheppard Pratt Health System, Brook Lane)	176	50%	41%	52%
Crisis residential program/crisis bed	70	43%	30%	38%
Assisted living facility (ALF)	21	38%	27%	50%
Residential chemical dependency treatment	232	38%	33%	45%
Residential Rehabilitation Program (RRP)	28	25%	25%	N/A
Supported housing program (mental health)	35	11%	11%	12%
Overall patients discharged to recommended placement setting	4,748	83%	88%	81%

Note. Recommended placement settings with fewer than 10 patients are suppressed.

Patient characteristics

Over half of behavioral health patients arrived in the emergency department by their family or themselves (55%), while about one-third arrived by law enforcement (31%; Figure 6). Of those who were brought in by law enforcement, 94% were brought in under an emergency petition. About half of patients (52%) had been seen before in the hospital's emergency department in the past year. It should be noted that patients may also have visited other emergency departments in the past year as well, so this may underestimate the frequency of repeat patients.

6. Characteristics of patient emergency department visit

Arrived by…	Total patients (4,748)	Percentage of patients without a delay (N=2,739)	Percentage of patients with a delay (N=2,009)	Median number of delay hours (N=1,676)
Family or self	55%	57%	52%	11 hours
Law enforcement	31%	31%	32%	11 hours
Patient brought in under emergency petition (only applies to those brought in by law enforcement)	94% (N=1,480)	94% (N=843)	94% (N=637)	11 hours
Other[a]	13%	12%	16%	12 hours
Patient seen in hospital's ED in the past year	52%	52%	52%	11 hours

Note. Statistical significance was tested using independent-samples median analysis and statistically significant differences in median delay days are identified as *p<.05, **p<.01, ***p<.001. No results in this table are statistically significant.

[a] Other includes arriving by a first responder or ambulance, transfer from another ED, through crisis services or a clinician, or from school or residential program.

Nearly all patients with discharge delays were Maryland residents (97%) (Figure 7). In addition, two-thirds were insured by public insurance (66%), while 26% had private insurance, and 9% were uninsured. Over three-quarters (78%) were age 18 or over, while 22% were under age 18. However, patients under age 18 tended to have delays twice as long (median=18 hours) as those age 18 and over (median=9 hours). This difference is statistically significant.

7. Demographic characteristics of patients

	Total patients (4,748)	Percentage of patients without a delay (N=2,739)	Percentage of patients with a delay (N=2,009)	Median delay hours (N=1,676)
Patient residence				
Maryland resident	97%	97%	97%	11 hours
Resident of another state	3%	3%	3%	9 hours
Patient insurance coverage				
Public insurance	65%	65%	66%	11 hours
Private insurance	26%	25%	26%	12 hours
Uninsured	9%	10%	9%	9 hours
Patient age range				
Under age 18	23%	23%	22%	18 hours***
Age 18 or older	78%	77%	78%	9 hours***

Note. Statistical significance was tested using independent-samples median analysis and statistically significant differences in median delay days are identified as *p<.05, **p<.01, ***p<.001.

Patient characteristics associated with discharge delays

As a result of hospital staff feedback during the design phase of the study, the tool asked whether specific patient characteristics were associated with discharge or transfer delays. Multiple characteristics could be selected for each patient. Three-quarters of patients and 47% of delay days were not associated with a specific patient characteristic (Figure 8). However, 14% of patients and over one-quarter of delay days (27%) were due in part to a patient's age. In addition, 8% of patients and 15% of delay days were associated with patients' behavioral issues or dysregulation. Other factors affected a smaller number of patients and contributed to between 1 and 10% of delay days, but they are still important to consider when identifying barriers to discharge.

8. Patient characteristics associated with discharge delays

	Percentage of patients (N=2,009)	Number of delay days (N=1,253)	Percentage of delay days (N=1,253)
Patient age (e.g., youth or geriatric)	14%	341	27%
Behavioral issues or dysregulation (e.g., violence, fire starting, self-harm, sexually inappropriate behavior)	8%	190	15%
Substance use (including addiction and medication assisted treatment)	8%	79	6%
Developmental disability or autism	3%	125	10%
Dementia	2%	54	4%
Significant medical comorbidity	2%	26	2%
Traumatic brain injury	<1%	12	1%
Physical disability	<1%	3	<1%
None of these characteristics are contributing to this delay	75%	586	47%

Note. A patient may have more than one characteristic contributing to their delay, so the total exceeds 100%.

Implications

This 45-day study with 29 hospitals has documented a large number of discharge delays in emergency department behavioral health care. Many patients spend time in emergency departments after they could be safely discharged to an alternative setting because of shortages in these alternative settings. The striking results of the study have at least the following implications:

■ The most common patient characteristic associated with delays was age, and patients under age 18 tended to have longer delays than patients age 18 and over. There is a clear need for additional resources to help move younger patients out of the emergency room and into alternative care settings more quickly.

■ Three of the top four most common reasons for discharge delays were associated with placement setting barriers, including denying admission, taking too long to process referrals, or lacking bed space. These reasons alone accounted for over half of the delay days in the study.

   – These placement setting delays were commonly for inpatient psychiatric units, and over two-thirds of patients with delays were referred to and ultimately ended up in an inpatient psychiatric unit. The 2018 Maryland Hospital Association study identified reasons for discharge delays in inpatient psychiatric units. Acting on the reasons and recommendations from the inpatient study will likely free up bed space in inpatient psychiatric units, which will allow for more rapid placement from the emergency department.

   – Similar to the work done on the inpatient study, future work could explore agency-level barriers in other settings, such as gathering information on the underlying issues and discussing potential solutions.

■ Transportation delays emerged as another common reason for delays, though they accounted for fewer delay days than the other most common reasons. This is a challenge that could be addressed without needing to build additional beds in the mental health system.

■ For many patients with and without discharge delays, going home with support services is both the staff-recommended placement setting and the setting to which they are eventually discharged. Therefore, it is important to build capacity--both in residential facilities, but also in outpatient or community-based support services--to allow patients adequate supports for timely and safe discharge home.

Appendix

A1. Definitions for discharge or transfer delay reasons

Reason for delay	Definition and/or Examples
Delay in creating or implementing care plan or referral in the ED	While a patient is in the ED, they are not getting the behavioral health services that have been ordered in a timely fashion (i.e., chemical dependency evaluations not getting done, psych testing not completed). This includes: ■ Delays in ordering necessary meds, labs, consults, and discharges ■ Delayed or missing documentation ■ Delayed follow through with written physician orders due to staff, equipment, or service issues ■ Waiting for testing or labs ■ Delay in completing referrals or developing a backup plan ■ Social work assessment is not completed in a timely manner
Off hours (nights/weekends) when coordination not available in the ED	Patient care, coordination, or referrals are unable to be made because the appropriate staff are not available, such as during the night or on a weekend.
Waiting for CSA inside county of responsibility to identify and make referral Waiting for CSA outside county of responsibility to identify and make referral	Includes waiting on Core Service Agency (CSA) to: ■ Identify facility for referral ■ Make referrals for placement following discharge ■ Request financial records for referral Note. This is for delays due to identification of placement in which a social service or government agency is involved and responsible for the delay.
Waiting for agency to accept, process, or deny referral	Referral made, but waiting for the agency to accept or reject the referral, including gathering any assessments, paperwork, or information needed to make a determination about the referral.
Awaiting guardianship decisions or execution	Waiting for a guardian to be identified or for the guardian to assist with decision-making for the patient.
Awaiting insurance or financial benefit activation or coverage	Waiting for activation of insurance or other benefits a placement requires before accepting a patient or waiting for health plan authorization for next level of care, such as a residential CD treatment program, a state chronic care hospital, necessary home-based services, etc.
Insurance denies authorization for placement	When insurance denies a specific placement, claim for admission, or follow-up care and this denial requires a patient to remain in the emergency department.
Placement setting refuses or denies patient due to patient characteristics	Agency identified and referral made, but the agency refuses to accept the patient due to something about the patient, including characteristics such as behavioral issues, medical comorbidity, disabilities, age, substance use, previous encounters with the patient, etc.
Placement setting refuses or denies patient due to capacity in the setting	Agency identified and referral made, but the agency refuses to accept the patient due to capacity issues within the setting. This may be because the setting is full or because they have already taken their maximum number of referrals that day.
Waiting for bed space in placement setting	Facility identified, patient accepted, but there is a delay in bed availability.

A1. Definitions for discharge or transfer delay reasons (continued)

Reason for delay	Definition and/or Examples
Lack of access to outpatient services necessary for patient to return home	Patient is ready to go home, but unable to connect to outpatient services necessary for maintaining stability, such as an outpatient psychiatry appointment, primary care appointment, ACT services, outpatient CD treatment, or needed family services.
Off hours (nights/weekends) when coordination not available in placement setting or outpatient services	Placement found, but, due to hours of operation, the necessary processing or the actual admission to the setting is delayed.
Delay due to patient legal involvement, including civil commitment or law enforcement	Delay due to legal involvement, which may include delays due to the civil commitment process or law enforcement needs. For example, a patient is in the commitment process or needs to be held for law enforcement processing.
Lack of housing/housing instability	Delay due to issues with finding appropriate housing, excluding residential treatment facilities (such as a group home, nursing home, foster care, or residential mental health or chemical health treatment).
Medicaid or ambulance transportation delay	Placement found and patient accepted, but waiting for Medicaid or ambulance transportation to become available to transfer the patient to the new setting.
Personal transportation delays or family inability to pick patient up	Patient is willing to be discharged or transferred to a new setting, including home, but they are unable to find a ride, or their family is unable to pick them up.
Patient non-adherence to plan of care/refusal of placement	Patient is not cooperating with necessary paperwork or follow-up, they are delaying completing paperwork or follow-up, or they are not participating in care plan, including refusing the selected placement.
Family refusal to pick patient up or execute plan of care	Family refuses to pick up patient or is not cooperating with necessary paperwork or follow-up, they are delaying completing paperwork or follow-up, or they are not participating in care plan, including refusing the selected placement.
Patient's residential facility refuses to take them back	Patient was living in a residential facility (such as group home, foster care, or residential treatment) before coming to the emergency department, but the facility is unwilling to allow the patient to return at discharge.

A2. Data collection tool

Patient ID (only for this study, not the hospital ID): _____   Patient first and last initial: _____
Hospital Name: _____

Maryland Hospital Association Mental and Behavioral Health Emergency Department Pilot

Characteristics of ED Stay

1. How did the patient arrive in the ED?*
   ☐ Family/self
   ☐ First responder or ambulance
   ☐ Law enforcement
   ☐ Transfer from another ED
   ☐ Other: _____

2. When did patient arrive in the ED?* Date: _____   Time: _____

3. When was the patient's disposition determined?* Date: _____   Time: _____
   (Note: For this study a delay is defined as starting 4 hours after the disposition determination)

Patient Characteristics

4. Is this patient a Maryland resident?* ☐ Yes   ☐ No

5. Patient age range:* ☐ Under 13   ☐ 13 – 17   ☐ 18 – 64   ☐ 65 or older

6. Patient insurance coverage at admission:* ☐ Public insurance   ☐ Private insurance   ☐ Uninsured

7. Has this patient been seen in your ED in the past year?* ☐ Yes   ☐ No

Preferred Discharge or Transfer Setting

8. If space were available, what is the preferred setting this patient would be discharged or transferred to? (Select only the one ideal setting)
   ☐ Inpatient acute medical hospital unit
   ☐ Inpatient acute psychiatric unit
   ☐ Inpatient specialty psychiatric unit (i.e., Sheppard Pratt Health System, Brook Lane)
   ☐ Skilled nursing facility (SNF) or nursing home
   ☐ Assisted living facility (ALF)
   ☐ Residential Rehabilitation Program (RRP)
   ☐ Residential chemical dependency treatment
   ☐ Child/Adolescent Residential Treatment Center in Maryland
   ☐ Child/Adolescent Residential Treatment Center outside of Maryland
   ☐ Child or adult foster care
   ☐ Group home with services
   ☐ Crisis residential program/crisis bed
   ☐ State psychiatric hospital (i.e., Spring Grove Hospital Center, Springfield Hospital Center, Clifton T. Perkins)
   ☐ State Chronic Hospital (i.e., Deer's Head Hospital Center and Western Maryland Hospital Center)
   ☐ Supported housing program (mental health)
   ☐ Other residential facility
   ☐ Home with supportive services

* Identifies questions asked of ALL behavioral health patients in the ED.

8a. What supportive services would be needed for this patient to be home?
☐ Intensive outpatient (including partial hospitalization and day hospital)
☐ Psychiatric Rehabilitation Program (PRP)
☐ Medication Management with Psychiatrist/Psychiatric Nurse Practitioner
☐ Individual Therapy
☐ ACT services
☐ Outpatient chemical dependency treatment
☐ Family support services (e.g., in-home caregivers or respite care)
☐ Other supports needed in order to discharge home: _____

Reason for Discharge Delay

9. Start date and time **for this reason** that the patient could not be discharged, admitted, or transferred: _____
(i.e., patient's disposition decision was made 4 hours ago, but patient is unable to be discharged, admitted, or transferred)

10. End date **for this reason** that the patient could not be discharged, admitted, or transferred: _____

11. Reason for discharge or transfer delay (i.e., why the patient cannot be discharged or transferred) - ***Select the single reason from the list below. If there are multiple reasons, separate them into multiple entries with unique times for each entry.***
☐ Delay in creating or implementing care plan or referral in the ED
☐ Off hours (nights/weekends) when coordination not available in the ED
☐ Waiting for Core Service Agency (CSA) <u>inside</u> county of responsibility to identify and make referral
☐ Waiting for CSA <u>outside</u> county of responsibility to identify and make referral
☐ Waiting for agency to accept, process, or deny referral
☐ Awaiting guardianship decisions or execution
☐ Awaiting insurance or financial benefit activation or coverage
☐ Insurance denies authorization for placement
☐ Placement setting refuses or denies patient due to patient characteristics
☐ Placement setting refuses or denies patient due to capacity in the setting
☐ Waiting for bed space in placement setting
☐ Lack of access to outpatient services necessary for patient to return home
☐ Off hours (nights/weekends) when coordination not available in placement setting or outpatient services
☐ Delay due to patient legal involvement, including civil commitment or law enforcement
☐ Lack of housing/housing instability
☐ Medicaid or ambulance transportation delay
☐ Personal transportation delays or family inability to pick patient up
☐ Patient non-adherence to plan of care/refusal of placement
☐ Family refusal to pick patient up or execute plan of care
☐ Patient's residential facility refuses to take them back

12. Did any of the following patient characteristics contribute to this delay?
☐ Developmental disability or autism
☐ Traumatic brain injury
☐ Dementia
☐ Physical disability
☐ Behavioral issues or dysregulation (e.g., violence, fire starting, self-harm, sexually inappropriate behavior)
☐ Significant medical comorbidity
☐ Substance use (including addiction and medication assisted treatment)
☐ Patient age (e.g., youth or geriatric)
☐ None of these characteristics are contributing to this delay

Discharge or Transfer Information

13. When was the patient transferred or discharged?* Date: _____   Time: _____

14. Where was this patient transferred or discharged to?*
    ☐ Inpatient acute medical hospital unit
    ☐ Inpatient acute psychiatric unit
    ☐ Inpatient specialty psychiatric unit
    ☐ Skilled nursing facility (SNF) or nursing home
    ☐ Assisted living facility (ALF)
    ☐ Residential Rehabilitation Program (RRP)
    ☐ Residential chemical dependency treatment
    ☐ Child/Adolescent Residential Treatment Center in Maryland
    ☐ Child/Adolescent Residential Treatment Center outside of Maryland
    ☐ Child or adult foster care
    ☐ Group home with services
    ☐ Crisis residential program/crisis bed
    ☐ State psychiatric hospital
    ☐ State Chronic Hospital (i.e., Deer's Health Hospital Center and Western Maryland Hospital Center)
    ☐ Supported housing program (mental health)
    ☐ Other residential facility
    ☐ Home with support services
    ☐ Other (please specify):_____

Optional: What additional services do you think would have been helpful to meet this patient's need? These can include services that already exist in Maryland or services that you have heard of in other areas.

Comments (optional):

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* Identifies questions asked of ALL behavioral health patients in the ED.

A3. Detailed study methods

Study sample

A total of 29 hospitals agreed to participate in the 45-day data collection period (see Acknowledgements for list of hospitals). Hospitals were asked to track all behavioral health patients in the emergency department from April 15, 2019 through May 31, 2019. For this study, a delay started if a behavioral health patient was still in the emergency department four hours after a disposition decision was made.

Data collection tool

The Maryland Hospital Association conducted a study of inpatient discharge delays in 2018, so the same tools and processes were updated for this study. Staff from Maryland Hospital Association and Wilder Research hosted a series of design calls with representatives from several hospitals and the Maryland Hospital Association. The tool includes information about the emergency department visit, patient characteristics, placement options for the patient, and the dates and reasons for discharge or transfer delays (see Appendix A2 for the tool and Appendix A1 for the associated definitions). All hospitals completed this tool online.

Staff training

To train staff on how to conduct data collection, representatives of Wilder Research and Maryland Hospital Association hosted an instructional webinar that included sample cases and time for questions and answers. The webinar was recorded and made available to participating hospitals. In addition, Wilder Research created a written protocol with comprehensive instructions for completing the tool and provided technical assistance on data collection questions throughout the study.

Data cleaning

The data required extensive cleaning in order to prepare it for analysis. In particular, the following issues were the most common and were addressed in the following ways:

Missing or illogical dates: Missing or illogical dates were the most common data cleaning issue. The following decisions were made to address this:

- If the arrival time in the ED or the disposition decision time was missing, then the case was removed.

- If the start time for a delay was less than 4 hours after the disposition decision time, then the start time was moved to be exactly 4 hours after the disposition decision time.

- The discharge delays were entered sequentially and the end date for the first reason was used as the start date for the second, and so forth, if any dates in the series were missing.

- If the end date for a reason was after the discharge date, the discharge date was used as the end date for the final reason.

- If the discharge date was missing and there was an end date for a delay reason, then the end date was used as the discharge date.

- If the discharge date was missing and the patient was not still in care (as identified by the hospital) and there was not a delay reason documented, the case was removed.

Missing reasons: If a reason for discharge delay was missing, then it was assigned the "reason not identified" label. If there was a span of time between 4 hours from the disposition decision and discharge not accounted for by a reason, it was also assigned the "reason not identified" label.

Duplicate cases: If a case had a duplicate admission date, discharge delay start and end date, and discharge delay reason, the case was unduplicated.

Truncated dates: Some patients were admitted prior to the start of the study or were still in care at the close of the study. In these cases, their start date was revised to the study start date (12:01AM on April 15, 2019) and their end date was revised to the end date of the study (11:59 PM on May 31, 2019).

Acknowledgements

We would also like to thank the Maryland Hospital Association Behavioral Health Task Force for their input and guidance.

Wilder Research would also like to thank the staff from participating hospitals:

Adventist Healthcare- Shady Grove Medical Center
Anne Arundel Medical Center
Carroll Hospital Center
Frederick Regional Health System
Garrett Regional Medical Center
Greater Baltimore Medical Center
Holy Cross Germantown
Holy Cross Silver Spring
Howard County General Hospital
Johns Hopkins Bayview Medical Center
MedStar Franklin Square Medical Center
MedStar Good Samaritan Hospital
MedStar Montgomery Medical Center
MedStar Southern Maryland Hospital Center
MedStar St. Mary's Hospital
MedStar Union Memorial Hospital
Mercy Medical Center
Meritus Medical Center
Northwest Hospital
Peninsula Regional Medical Center
Saint Agnes Healthcare
Sinai Hospital of Baltimore
Suburban Hospital
The Johns Hopkins Hospital (Adults and Children's Center)
University of Maryland Baltimore Washington Medical Center
University of Maryland Medical Center
University of Maryland Medical Center Midtown Campus
University of Maryland Prince George's Hospital Center
University of Maryland St. Joseph Medical Center

Finally, Wilder Research would like to thank the following staff for their contributions to this study:

Mark Anton
Jenny Bohlke
Jen Collins
Heather Loch
Melissa Serafin
Dan Swanson

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Maryland Hospital Association

MHA's mission is to serve Maryland's hospitals and health systems through collective action to shape policies, practices, financing and performance to advance health care and the health of all Marylanders.

October 16, 2019

TO: CHA EMS/Trauma Committee Members

FROM: BJ Bartleson, RN, MS, NEA-BC, Vice President Nursing and Clinical Services
             Rose Colangelo, RN, MSN, CEN, Scripps La Jolla, Patient Care Manager, ED
             Pam Allen, RN, MSN, CEN, Redlands Emergency Department/Critical Care Director
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SUBJECT: Ambulance Patient Offload Time (APOT) 2.0 & Interfacility Transport Issues

SUMMARY

At our last CHA EMS/T meeting we determined we should develop a subcommittee to resurvey the members, update the present statewide APOT toolkit, and deliver a statewide webinar to inform members of the environmental challenges and best practices. The sub-committee met and identified the following areas of focus:
1) Purpose of APOT 2.0 – legal/regulatory changes, preparing for full transparency, environmental threats, preparation, etc.
2) Transfer of Care data point – need for hospitals to fully focus on transfer of care times and how they are collected
3) Technology – the technology and information exchange platforms continue to grow and expand, First Watch, Reddinet, EDIE, NEDOCS, HIE systems etc. all interconnect to facilitate data capture
4) Offload factors affecting hospitals
5) How to improve APOT- FAQ's, gap analysis, technology opportunities
6) Data Tracking at LEMSA and EMSA and where the hospital intersections occur
7) Other issues raised by hospital ED members

The sub-committee agreed it would be essential to re-survey the members on their type of hospital, their associated LEMSA, their participation level in APOT, their use of technology and any other issues relative to APOT. In addition, we need to understand best practices and barriers to improved time.

I attended the HASC Inland Area Emergency Health Services Committee meeting and their APOT reports are attached.

Simultaneously, CHA's data analytics team agreed to support our survey needs and we are working with them on how to accomplish this.   We need your input on next steps.

DISCUSSION QUESTIONS

   1. Are there other specific or generalized issues we should survey?

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2. In our first APOT toolkit we embarked on social determinant type issues affecting individual hospitals' respective counties (number of primary care physicians or other primary care providers, #ED visits, FQHC's, EMS stations per resident, % of population below 150% of the federal poverty level, % of population over 65, etc.) What other factors in your community could be driving ED impaction (#homeless, #opioid substance use disorder, etc.) that hospitals have limited control over?
3. Any best practices or issues we should be addressing that we haven't thought of?

ACTION REQUESTED

➢ Discussion and information to inform CHA on survey and next steps.

Attachments: Inland Counties Emergency Medical Agency Bed Delay Reports

BJB:br

DATE: September 20, 2019

TO: Hospital CEOs, ED Directors/Managers and PLNs - San Bernardino County

FROM: Tom Lynch
                 EMS Administrator

SUBJECT: **HOSPITAL BED DELAY REPORT FOR JANUARY - AUGUST 2019**

The Inland Counties EMS Agency (ICEMA) is providing the January through August 2019 hospital ambulance patient offload delay (APOD) report utilizing data retrieved from the ambulance provider computer aided dispatch records.

The APOD report provides the total number of:

- 9-1-1 transports to each hospital.
- Transports that resulted in APOD.
- APOD hours/minutes calculated beginning 25 minutes after the ambulance arrives at the hospital.

If you have any questions, please contact Mark Roberts, Technical Consultant, at (909) 388-5804 or via e-mail at mark.roberts@cao.sbcounty.gov.

TL/MR/jlm

c: Keven Porter, Regional Vice President, HASC
        File Copy

Inland Counties Emergency Medical Agency

Serving San Bernardino, Inyo and Mono Counties

Bed Delay Report

January 2019 — August 2019

Report Detail

This report collects and summarizes the "Bed Delay" for a selected group of hospitals. "Bed Delay" is the time between arrival of an ambulance at a hospital and the ambulance going back in service. The first 25 minutes are excluded from consideration. The only type of transports that are considered are 911 calls where the patient is treated and transported via ambulance.

Abbreviated Name	Full Name
ARMC	Arrowhead Regional Medical Center
BCH	Barstow Community Hospital
BVCH	Bear Valley Community Hospital
CHSB	Community Hospital San Bernardino
CRMC	Colorado River Medical Center
CVMC	Chino Valley Medical Center
DVMC	Desert Valley Hospital Center
HDMC	Hi-Desert Medical Center
KHF	Kaiser Hospital Medical Center - Fontana
KHO	Kaiser Hospital Medical Center - Ontario
LLUMC	Loma Linda University Medical Center
MCH	Mountains Community Hospital
MHMC	Montclair Hospital Medical Center
RDCH	Redlands Community Hospital
SARH	San Antonio Regional Hospital
STBMC	St. Bernardine Medical Center
STMMC	St. Mary Medical Center
VALL	JLP VA Loma Linda
VVGMC	Victor Valley Global Medical Center

ICEMA, ePCR Database. Compiled 9/19/2019, PW.   Page 2 of 6

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Bed Delay Hours* and Bed Delay Transports
Average per Hospital by Month
January 2019 – August 2019

	ARMC	BCH	BVCH	CHSB	CRMC	CVMC	DVMC	HDMC	KHF	KHO	LLUMC	MCH	MHMC	RDCH	SARH	STBMC	STMMC	VALL	VVGMC
Hours	177:47	24:23	3:37	94:46	5:10	17:54	276:19	17:04	238:21	108:39	276:06	1:58	4:34	198:21	381:08	347:37	298:30	2:53	109:17
Transports	335	44	10	255	11	52	504	38	433	226	580	3	18	407	651	713	631	10	315
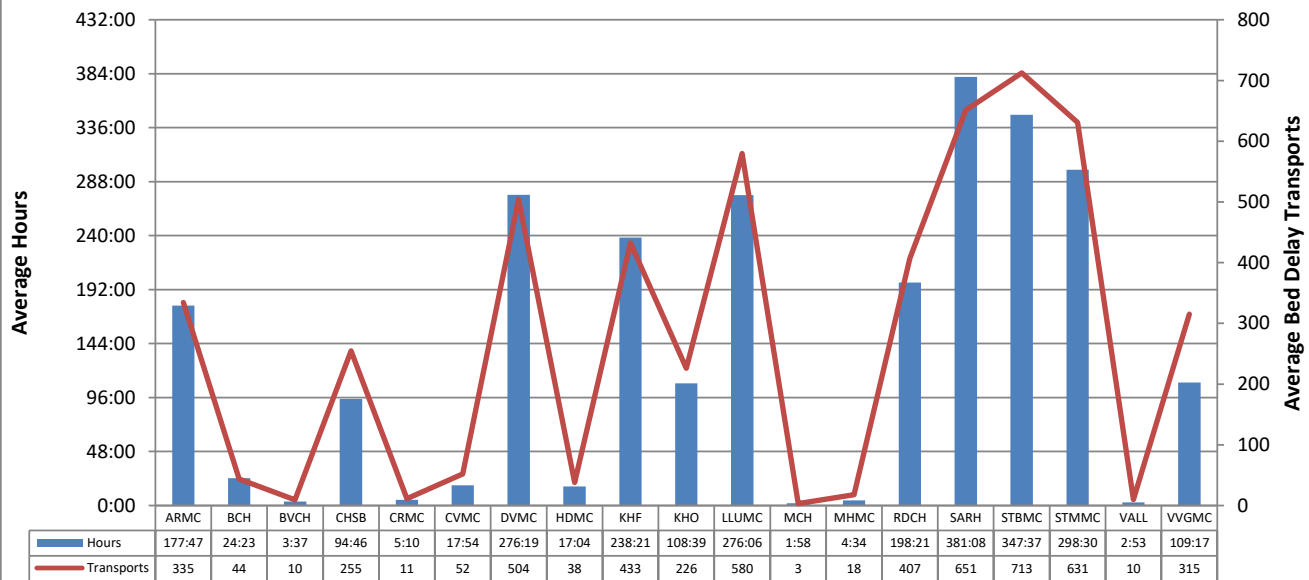
Time Bed Delay Patients Were on Bed Delay per Patient
Median and Average by Hospital
January 2019 – August 2019

	ARMC	BCH	BVCH	CHSB	CRMC	CVMC	DVMC	HDMC	KHF	KHO	LLUMC	MCH	MHMC	RDCH	SARH	STBMC	STMMC	VALL	VVGMC
Median	0:19	0:09	0:08	0:12	0:10	0:10	0:18	0:11	0:17	0:15	0:17	0:20	0:08	0:19	0:21	0:17	0:18	0:08	0:12
Average	0:31	0:33	0:22	0:22	0:27	0:20	0:32	0:26	0:33	0:28	0:28	0:36	0:15	0:29	0:35	0:29	0:28	0:17	0:20

Beginning February 2017 ICEMA implemented the change from NEMSIS 2.2.1 data-set to NEMSIS 3.4.0 as required by the California Emergency Medical Services Agency (EMSA). This also required the change of the software being used to collect the EMS data. Over the coming months ICEMA will be working with the vendor to adapt to the new data-set and new software in order to fine-tune reports. Currently, ICEMA is using the Signature Locked time as indicated by the paramedic and/or the Computer Aided Dispatch (CAD).

*Note: Bed Delay Hours excludes the first 25 minutes of each transport.
ICEMA, Elite Database and ePCR Database. Compiled 9/19/2019, PW.

Page 3 of 6

Total Bed Delay Hours* and Bed Delay Transports by Hospital
January 2019 – August 2019

Hospital	Total Bed Delay Hours*	Bed Delay Transports	Total Transports	Bed Delay Percentage	Average Bed Delay by Patient	Median Bed Delay by Patient
ARMC	1422:22	2,676	7,746	34.5%	0:31	0:19
BCH	195:06	349	3,758	9.3%	0:33	0:09
BVCH	29:01	76	1,264	6.0%	0:22	0:08
CHSB	758:14	2,036	4,791	42.5%	0:22	0:12
CRMC	41:25	89	565	15.8%	0:27	0:10
CVMC	143:14	417	3,190	13.1%	0:20	0:10
DVMC	2210:34	4,034	7,416	54.4%	0:32	0:18
HDMC	136:35	305	3,804	8.0%	0:26	0:11
KHF	1906:49	3,460	9,102	38.0%	0:33	0:17
KHO	869:14	1,807	5,091	35.5%	0:28	0:15
LLUMC	2208:51	4,639	9,200	50.4%	0:28	0:17
MCH	15:51	26	616	4.2%	0:36	0:20
MHMC	36:35	142	1,621	8.8%	0:15	0:08
RDCH	1586:51	3,258	6,090	53.5%	0:29	0:19
SARH	3049:06	5,207	11,492	45.3%	0:35	0:21
STBMC	2780:56	5,700	9,708	58.7%	0:29	0:17
STMMC	2388:04	5,047	8,333	60.6%	0:28	0:18
VALL	23:08	80	711	11.3%	0:17	0:08
VVGMC	874:20	2,523	5,454	46.3%	0:20	0:12
Total	**20676:24**	**41,871**	**99,952**	**41.9%**	**0:29**	**0:17**

Beginning February 2017 ICEMA implemented the change from NEMSIS 2.2.1 data-set to NEMSIS 3.4.0 as required by the California Emergency Medical Services Agency (EMSA). This also required the change of the software being used to collect the EMS data. Over the coming months ICEMA will be working with the vendor to adapt to the new data-set and new software in order to fine-tune reports. Currently, ICEMA is using the Signature Locked time as indicated by the paramedic and/or the Computer Aided Dispatch (CAD).

*Note: Bed Delay Hours excludes the first 25 minutes of each transport.
ICEMA, Elite Database and ePCR Database. Compiled 9/19/2019, PW.

Total Monthly Bed Delay Hours* by Hospital
January 2019 − August 2019

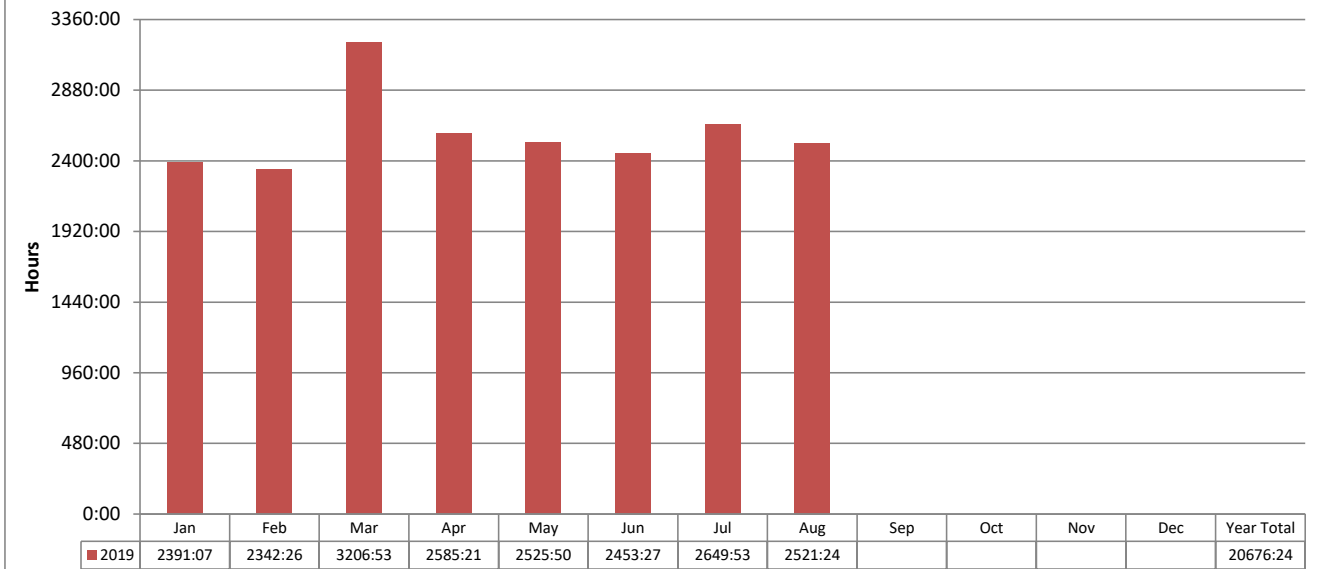| Hospital	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	Average Bed Delay by Month
ARMC	142:07	134:36	247:10	149:32	136:59	176:48	201:57	233:09					1422:22	177:47
BCH	16:13	21:43	38:40	47:13	29:48	15:54	16:19	9:14					195:06	24:23
BVCH	7:17	3:09	7:11	0:20	5:23	0:07	2:41	2:50					29:01	3:37
CHSB	98:18	95:00	133:58	85:31	96:53	96:49	80:55	70:45					758:14	94:46
CRMC	10:44	5:12	5:24	2:09	5:29	4:32	2:49	5:03					41:25	5:10
CVMC	19:32	23:44	27:37	12:00	16:10	22:35	8:38	12:54					143:14	17:54
DVMC	315:46	314:09	429:25	265:22	235:15	216:22	192:46	241:25					2210:34	276:19
HDMC	21:05	10:08	19:24	19:28	6:30	19:08	10:07	30:42					136:35	17:04
KHF	198:21	210:26	301:45	220:53	224:50	253:52	255:08	241:31					1906:49	238:21
KHO	76:16	90:24	134:52	111:21	122:33	119:31	117:18	96:55					869:14	108:39
LLUMC	209:31	245:58	321:43	217:08	325:57	270:45	337:58	279:46					2208:51	276:06
MCH	0:14	1:03	4:05	0:40	2:14	2:35	1:20	3:36					15:51	1:58
MHMC	3:38	2:30	6:06	4:37	2:56	7:08	4:28	5:10					36:35	4:34
RDCH	180:58	213:34	291:52	207:34	204:58	160:47	172:40	154:25					1586:51	198:21
SARH	281:48	321:31	383:14	452:39	333:24	340:04	468:50	467:33					3049:06	381:08
STBMC	380:51	286:23	397:35	315:18	419:17	362:07	322:17	297:04					2780:56	347:37
STMMC	312:52	264:24	312:32	328:23	256:12	257:56	346:44	308:57					2388:04	298:30
VALL	2:27	0:19	4:00	7:14	1:27	0:45	5:01	1:52					23:08	2:53
VVGMC	113:00	98:06	140:10	137:49	99:25	125:31	101:49	58:27					874:20	109:17
Total	**2391:07**	**2342:26**	**3206:53**	**2585:21**	**2525:50**	**2453:27**	**2649:53**	**2521:24**					**20676:24**	**2584:33**

Beginning February 2017 ICEMA implemented the change from NEMSIS 2.2.1 data-set to NEMSIS 3.4.0 as required by the California Emergency Medical Services Agency (EMSA). This also required the change of the software being used to collect the EMS data. Over the coming months ICEMA will be working with the vendor to adapt to the new data-set and new software in order to fine-tune reports. Currently, ICEMA is using the Signature Locked time as indicated by the paramedic and/or the Computer Aided Dispatch (CAD).

*Note: Bed Delay Hours excludes the first 25 minutes of each transport.
ICEMA, Elite Database and ePCR Database. Compiled 9/19/2019, PW.

San Bernardino County
Total Bed Delay Hours* by Month
January 2019 – August 2019

2019	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year Total
	2391:07	2342:26	3206:53	2585:21	2525:50	2453:27	2649:53	2521:24					20676:24

Total Bed Delay Hours* and Bed Delay Transports by Hospital
January 2019 – August 2019

Hospital	2019 YTD			
	Total BD Hours*	BD Transports	Total Transports	BD %
ARMC	1422	2,676	7,746	34.5%
BCH	195	349	3,758	9.3%
BVCH	29	76	1,264	6.0%
CHSB	758	2,036	4,791	42.5%
CRMC	41	89	565	15.8%
CVMC	143	417	3,190	13.1%
DVMC	2210	4,034	7,416	54.4%
HDMC	136	305	3,804	8.0%
KHF	1906	3,460	9,102	38.0%
KHO	869	1,807	5,091	35.5%
LLUMC	2208	4,639	9,200	50.4%
MCH	15	26	616	4.2%
MHMC	36	142	1,621	8.8%
RDCH	1586	3,258	6,090	53.5%
SARH	3049	5,207	11,492	45.3%
STBMC	2780	5,700	9,708	58.7%
STMMC	2388	5,047	8,333	60.6%
VALL	23	80	711	11.3%
VVGMC	874	2,523	5,454	46.3%
Total	**20676**	**41,871**	**99,952**	**41.9%**

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ICEMA, Elite Database and ePCR Database. Compiled 9/19/2019, PW.
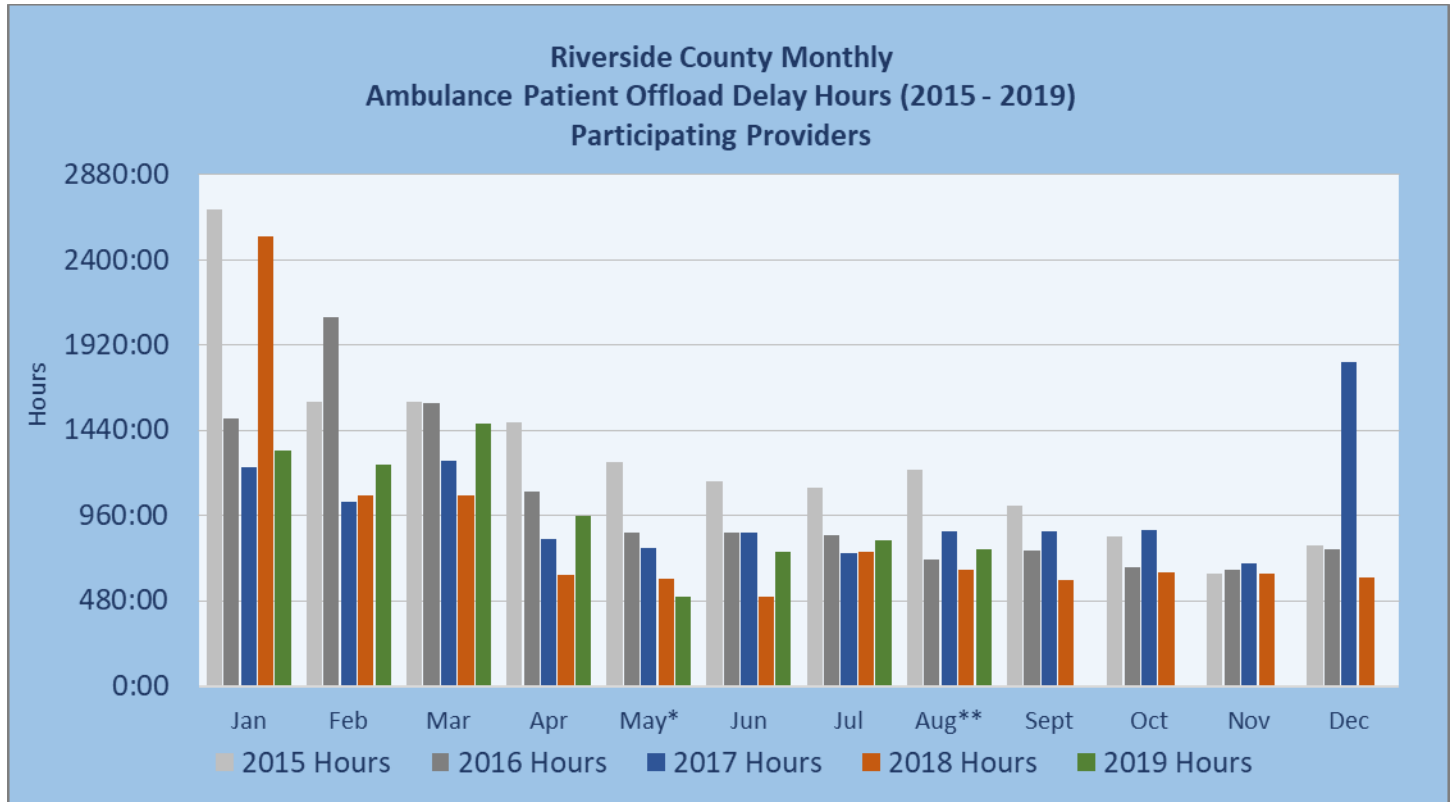
Ambulance Patient Offload Time

August 2019

Monthly Report

UPDATED AND REDESIGNED FOR 2019

Prepared by Sudha Mahesh, Riverside County EMS Agency – September 5, 2019

RIVERSIDE COUNTY AMBULANCE PATIENT OFFLOAD TIME

This chart represents total ambulance patient offload delay (APOD) time from hospitals within Riverside County. This chart includes only delays greater than 30 minutes, and only the time after the first 30 minutes is summed.
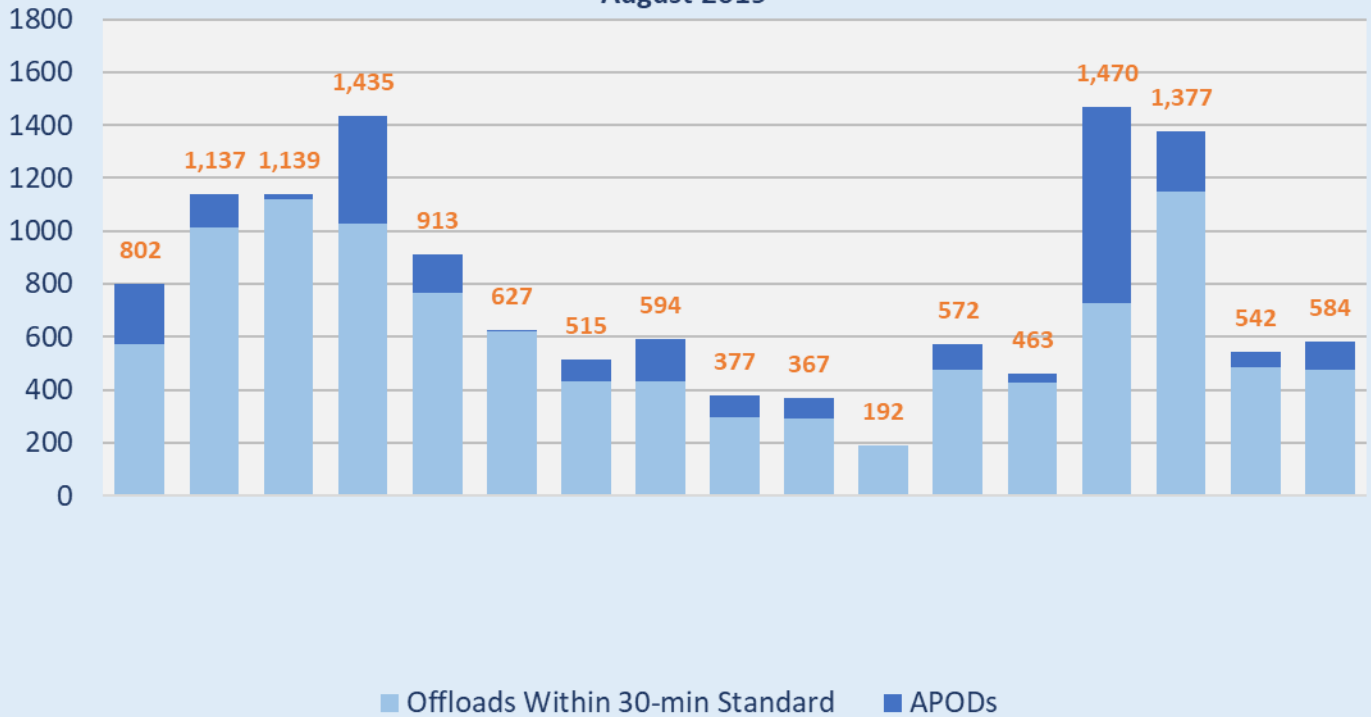
Riverside County Monthly
Ambulance Patient Offload Delay Hours (2015 - 2019)
Participating Providers

Legend: ■ 2015 Hours ■ 2016 Hours ■ 2017 Hours ■ 2018 Hours ■ 2019 Hours

APOD times for years 2015 and 2016 (represented in grayscale) were measured using a different methodology. See page 6 for details.
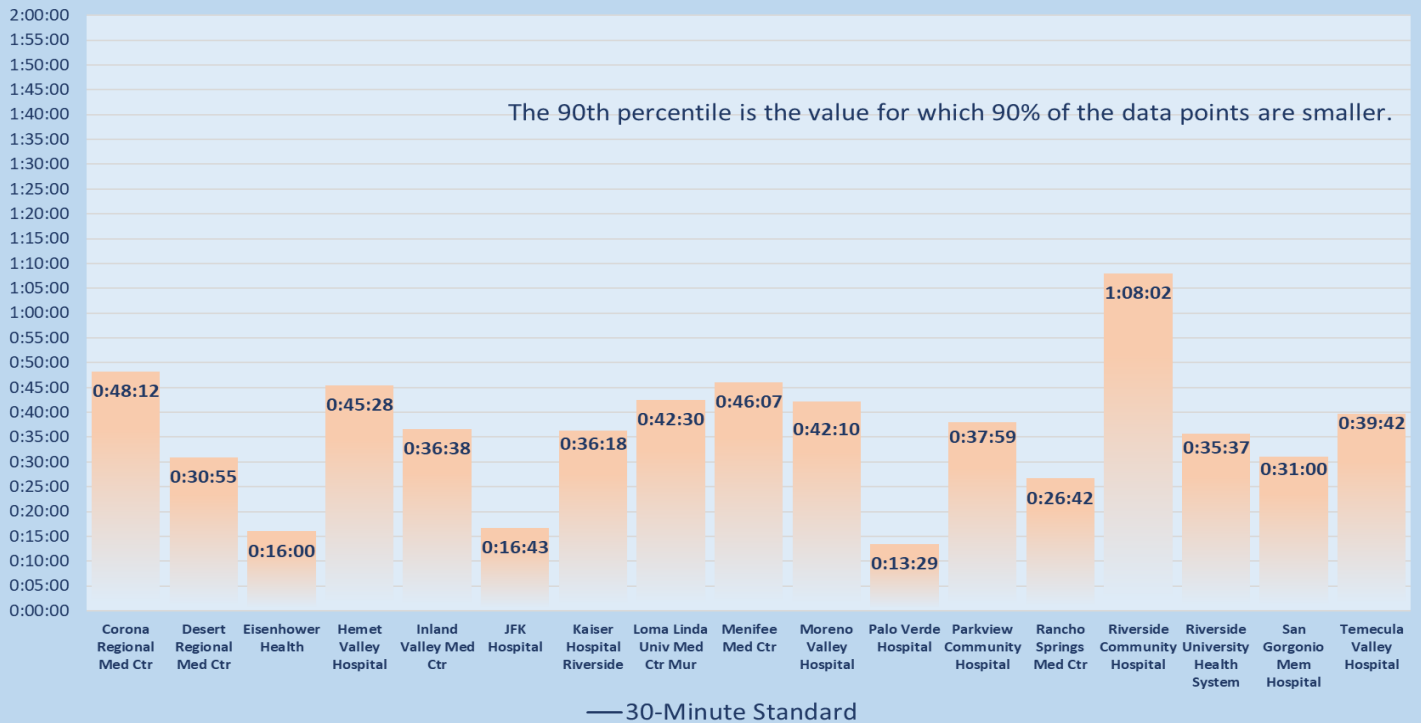**For May of 2016, actual totals may have been slightly higher than are reported due to a 3-day CAD outage.*
**Beginning August 2017, times represented include all participating providers. Prior to August, data included AMR responses only.

August 2019	ALS Transports	APOT	APOD Hours	APODs	APOD Compliance	APOT - 1
Corona Regional Med Ctr	802	319:58:06	66:55:08	227	71.7%	0:48:12
Desert Regional Med Ctr	1,137	311:06:20	33:02:11	123	89.2%	0:30:55
Eisenhower Health	1,139	180:42:22	1:25:19	17	98.5%	0:16:00
Hemet Valley Hospital	1,435	600:12:59	99:10:56	405	71.8%	0:45:28
Inland Valley Med Ctr	913	287:38:03	34:48:14	146	84.0%	0:36:38
JFK Hospital	627	88:41:17	0:48:20	8	98.7%	0:16:43
Kaiser Hospital Riverside	515	175:35:01	26:41:07	84	83.7%	0:36:18
Loma Linda Univ Med Ctr Mur	594	246:34:10	42:51:47	163	72.6%	0:42:30
Menifee Med Ctr	377	150:27:32	32:53:42	82	78.2%	0:46:07
Moreno Valley Hospital	367	130:54:36	22:51:00	75	79.6%	0:42:10
Palo Verde Hospital	192	18:42:06	0:00:00	0	100.0%	0:13:29
Parkview Community Hospital	572	185:54:22	23:33:00	95	83.4%	0:37:59
Rancho Springs Med Ctr	463	112:45:35	4:21:59	34	92.7%	0:26:42
Riverside Community Hospital	1,470	905:12:55	306:34:58	741	49.6%	1:08:02
Riverside University Health System	1,377	468:15:04	44:25:07	227	83.5%	0:35:37
San Gorgonio Mem Hospital	542	157:36:41	8:23:19	58	89.3%	0:31:00
Temecula Valley Hospital	584	193:07:02	24:07:15	108	81.5%	0:39:42
Grand Total	13,106	4533:24:11	772:53:22	2,593	80.2%	0:40:31

Riverside County Hospitals
Transports and APODs
August 2019

Chart: Transports and APODs by hospital, August 2019. Y-axis ranges from 0 to 1800. Values shown above each bar:

- 802
- 1,137
- 1,139
- 1,435
- 913
- 627
- 515
- 594
- 377
- 367
- 192
- 572
- 463
- 1,470
- 1,377
- 542
- 584

Legend: ■ Offloads Within 30-min Standard   ■ APODs

August 2019 APOT 1, 90th Percentile

The 90th percentile is the value for which 90% of the data points are smaller.

Chart: APOT 1, 90th Percentile by hospital. Y-axis ranges from 0:00:00 to 2:00:00.

Hospital	Value
Corona Regional Med Ctr	0:48:12
Desert Regional Med Ctr	0:30:55
Eisenhower Health	0:16:00
Hemet Valley Hospital	0:45:28
Inland Valley Med Ctr	0:36:38
JFK Hospital	0:16:43
Kaiser Hospital Riverside	0:36:18
Loma Linda Univ Med Ctr Mur	0:42:30
Menifee Med Ctr	0:46:07
Moreno Valley Hospital	0:42:10
Palo Verde Hospital	0:13:29
Parkview Community Hospital	0:37:59
Rancho Springs Med Ctr	0:26:42
Riverside Community Hospital	1:08:02
Riverside University Health System	0:35:37
San Gorgonio Mem Hospital	0:31:00
Temecula Valley Hospital	0:39:42

—— 30-Minute Standard

Data for this report has been collected from ePCRs (electronic patient care records) via FirstWatch® and are available after they have been completed by the provider. There is, therefore, an inherent latency to the availability of these records. Due to this latency, subsequent reports may feature higher aggregate numbers than earlier reports for the same reporting period. The difference is insignificant (averaging less than .07%) and does not impact overall compliance.

APOT AND APOD TRENDS

The first table below shows the **monthly averages** in *Transports, APOT, APOD Hours, and APODs* for the previous 12 months: ***August 2018 through the end of the present month***. Also included are the minimum and maximum APODs during the same 12-month period.

The bottom table shows a three-month comparison of **actuals** for *Transports, APODs, and APOD Hours*.

	Monthly Average over last 12 Months					
	Avg Transports	Avg APOT	Avg APOD Hours	Avg APODs	Min of APODs	Max of APODs
Corona Regional Med Ctr	742	328:23:32	85:38:26	217	152	310
Desert Regional Med Ctr	1,117	260:35:23	17:45:13	69	33	123
Eisenhower Health	1,304	223:06:19	3:20:30	24	15	61
Hemet Valley Hospital	1,394	616:46:39	124:37:56	452	341	565
Inland Valley Med Ctr	867	278:18:02	42:03:51	135	76	179
JFK Hospital	603	91:24:28	1:27:27	10	3	22
Kaiser Hospital Riverside	521	172:09:32	23:42:04	79	41	128
Loma Linda Univ Med Ctr Mur	630	320:42:50	89:49:03	226	163	304
Menifee Med Ctr	320	127:31:50	29:50:56	71	35	98
Moreno Valley Hospital	343	111:33:39	16:12:09	52	29	75
Palo Verde Hospital	**160**	**15:07:00**	**0:35:19**	**2**	**0**	**6**
Parkview Community Hospital	494	188:16:25	37:17:50	104	62	157
Rancho Springs Med Ctr	450	124:37:13	9:55:55	43	28	80
Riverside Community Hospital	**1,431**	**873:41:23**	**311:47:59**	**647**	**346**	**806**
Riverside University Health System	1,288	481:56:26	61:00:45	266	167	423
San Gorgonio Mem Hospital	561	166:55:22	11:22:46	65	39	97
Temecula Valley Hospital	545	183:35:22	21:04:10	94	57	137

	Transports and APODs: 3-Month Comparison								
	June 2019			July 2019			August 2019		
	Transports	APODS	APOD Hours	Transports	APODS	APOD Hours	Transports	APODS	APOD Hours
Corona Regional Med Ctr	771	202	81:10:46	819	273	141:54:28	802	227	66:55:08
Desert Regional Med Ctr	1,098	65	14:59:18	1,138	56	13:50:45	1,137	123	33:02:11
Eisenhower Health	1,276	18	2:55:59	1,218	21	2:39:46	1,139	17	1:25:19
Hemet Valley Hospital	1,375	492	138:53:10	**1,465**	561	156:25:30	1,435	405	99:10:56
Inland Valley Med Ctr	851	165	53:08:18	895	179	42:37:05	913	146	34:48:14
JFK Hospital	638	6	**1:28:45**	685	7	0:43:21	627	8	**0:48:20**
Kaiser Hospital Riverside	535	108	32:55:41	506	55	14:13:33	515	84	26:41:07
Loma Linda Univ Med Ctr Mur	627	218	64:41:45	637	165	36:02:30	594	163	42:51:47
Menifee Med Ctr	338	98	41:20:26	343	84	32:42:09	377	82	32:53:42
Moreno Valley Hospital	338	56	23:25:49	341	42	13:05:12	367	75	22:51:00
Palo Verde Hospital	**162**	**0**		**154**	**2**	**0:01:49**	**192**	**0**	
Parkview Community Hospital	480	92	31:02:45	554	95	21:59:44	572	95	23:33:00
Rancho Springs Med Ctr	454	31	6:48:04	448	40	6:02:12	463	34	4:21:59
Riverside Community Hospital	**1,461**	**580**	**175:38:20**	1,366	**634**	**277:00:11**	**1,470**	**741**	**306:34:58**
Riverside University Health System	1,255	205	34:22:00	1,314	167	29:34:58	1,377	227	44:25:07
San Gorgonio Mem Hospital	563	86	17:33:37	587	62	11:17:24	542	58	8:23:19
Temecula Valley Hospital	586	128	34:29:18	550	100	18:14:38	584	108	24:07:15
	12,808	2,550	754:54:01	13,020	2,543	818:25:15	13,106	2,593	772:53:22

APOD hours only include the time after the 30-minute standard has elapsed.

Key | High | Low

APOD AMBULANCE REDIRECTION

On March 20, 2019, Riverside County EMS Agency activated Provisional Policy 6104 (http://www.remsa.us/policy/6104.pdf) to allow provisional redirection of Ambulances from hospitals that have extended Ambulance Patient Offload Delay (APOD)--to the closest most appropriate hospital that does not have extended APOD. Extended APOD is a patient remaining on an ambulance gurney for 90 minutes or greater after arrival at a hospital. The table below shows the ambulance diversions that occurred during the month of July 2019.

	Occurences of APOD Redirection
Loma Linda University Medical Center--Murrieta	3
Menifee Valley Medical Center	3
Riverside Community Hospital	21
Riverside University Health System	1
Inland Valley Medical Center	2
Hemet Valley Medical Center	2
Grand Total	**32**

EMERGENCY TREATMENT SERVICES

Transports to ETS do not meet the EMSA definitions for APOT (see page 6); therefore, they are not being included with the APOT aggregates. Comprising over 3% of overall transports, the number of transports to ETS is significant enough to impact the EMS system and, therefore, warrants reporting.

August 2019 - Emergency Treatment Services				
	Transports to ETS	Total Offload Time	APOD Hours	APODs	APOD Compliance
Emergency Treatment Services	429	205:17:38	40:24:59	158	63.2%

Transports and APODs at ETS: 3-Month Comparison								
	June 2019			July 2019			August 2019		
	Transports	APODs	APOD Hours	Transports	APODs	APOD Hours	Transports	APODs	APOD Hours
Emergency Treatment Services	416	169	44:11:36	408	134	33:40:53	429	158	40:24:59

APOT AND APOD DEFINITIONS

Ambulance Patient Offload Time (APOT)
The Time interval between the arrival of an ambulance patient at an ED and the time the patient is transferred to the ED gurney, bed, chair, or other acceptable location and the emergency department assumes the responsibility for care of the patient.[1] The Clock Start (eTimes.11) is the time of patient arrival at the destination (hospital), and the Clock Stop (eTimes.12) is time the care of the patient is transferred.[2] REMSA obtains both times from the ePCR.

APOT -1 Specifications
Criteria: All 911 transports to a hospital emergency department for which the patient arrival and transfer dates and times are "logical and present."[3]
Method: Aggregate of all transfer times and reported at the 90th percentile (the value for which 90% of the times are shorter).

Ambulance Patient Offload Delay (APOD)
Any delay in ambulance patient offload time (APOT) that exceeds the local ambulance patient offload time standard of 25/30 minutes (Riverside County EMS Agency applies a 30-minute standard). This shall also be synonymous with "non-standard patient offload time" as referenced in the Health and Safety Code.[4] If the transfer of care and patient offloading from the ambulance gurney exceeds the 30 minute standard, it will be documented and tracked as APOD.[5]

APOD Compliance
A frequency comparision between the total number of transports and those resulting in APOD.

Data Definitions
Data in this report includes all transports to the 17 hospitals monitored by REMSA in the respective month relative to the date and time the incident originates (eTimes.03--Dispatch Notified Date/Time). *For example, if an incident originates on June 30, and the patient is subsequently transferred to the care of an emergency department on July 1, that incident will be included in the month of June.*

Canceled calls, calls for which both arrival and transfer times are not present, and calls with erroneous/negative offload times are excluded. Certain incidents with offload times exceeding six hours and 12 hours are verified for accuracy, and incidents are excluded if the timeline cannot be validated.

Beginning January 2017, offload times represented are measured using time of patient arrival at hospital (eTimes.11) until the time of patient transfer (eTimes.12) as represented on the ePCR (electronic patient care record). Prior to January 2017, offload times were calculated using CAD times, beginning with the time that dispatch placed the ambulance on bed delay until the time the ambulance left the hospital.

---

[1] Health and Safety Code Division 2.5, Chapter 3, Article 1, Section 1797.120(b)
[2] Ambulance Patient Offload Time (APOT) Standardized Methods for Data Collection and Reporting, approved by EMS Commission 12/14/2016.
[3] Ibid., APOT-1 Specifications.
[4] REMSA Policy 9101.6. http://www.remsa.us/policy/9101.pdf
[5] REMSA Policy 4204, Transfer of Patient Care. http://www.remsa.us/policy/4204.pdf

October 16, 2019

TO: CHA EMS/Trauma Committee Members

FROM: BJ Bartleson, RN, MS, NEA-BC, Vice President Nursing and Clinical Services

SUBJECT: Alternate Destination

SUMMARY

AB 1544 (Gipson) was ordered to the inactive file to be held as a two-year bill by the author. The EMSA regulatory package language for alternate destination was removed from the 4th 15-day comment period until the new EMSA Director, David R. Duncan, MD, has a chance to begin his position and pull a work group together. (See Attachment #1, EMSA, Chapter 4. Emergency Medical Technician-Paramedic Regulations, 4th 15 Day Comment Period, and Attachment #2, CHA Letter and Comments). We have also been made aware that OSPHD will be renewing the Community Paramedicine Pilot Project work for another year, until November 2020.   Below sites gives you information, talking points and research findings for the present.

https://healthforce.ucsf.edu/publications/evaluation-california-s-community-paramedicine-pilot-program

https://healthforce.ucsf.edu/sites/healthforce.ucsf.edu/files/publication-pdf/Community%20Paramedicine%20Evaluation.pdf

https://healthforce.ucsf.edu/sites/healthforce.ucsf.edu/files/publication-pdf/Community%20Paramedicine%20Summary%20Points.pdf

Attachment #3, Pilot Program List, is a list of the pilot programs and their respective contacts. While there is no definitive outcome on CP and alternate destination, CHA continues to be supportive of this work to get patients cared for at the right place at the right time by the right provider. The success of these programs could provide some much valuable needed decompression in your EDs.

QUESTIONS

1. Do you have a CP program in your region?
2. Do you attend a LEMSA or other EMCC collaborative where discussion on this is occurring?
3. What are your thoughts moving forward on CP, alternate destination or other related issues?

ACTION REQUESTED

➢ Discussion and information to inform CHA

1215 K Street, Suite 800, Sacramento, CA 95814 • *Telephone:* 916.443.7401 • *Facsimile:* 916.552.7596 • www.calhospital.org
Corporate Members: Hospital Council of Northern and Central California, Hospital Association of Southern California, and Hospital Association of San Diego and Imperial Counties

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Attachments: EMSA, Chapter 4. Emergency Medical Technician-Paramedic Regulations, 4th 15-day
                Comment Period
                CHA Letter and Comments
                Pilot Program List

BJB:br

Fourth 15-Day Public Comment Period
September 13, 2019 through September 28, 2019

The Emergency Medical Services Authority has illustrated changes to the original text in the following manner:

- Additions to the original text from 45-day comment period are shown <u>underlined</u>.
- Deletions to the original text from 45-day comment period are shown in Strikeout
  - Omitted text is indicated by (* * * *)

The Emergency Medical Services Authority has illustrated changes to the modified text from the 15-day comment period in the following manner:

- Additions to the modified text are shown in <u>double underline</u>.
- Deletions to the modified text are shown in ~~double strikeout~~.

The Emergency Medical Services Authority has illustrated changes to the modified text from the second 15-day comment period in the following manner:

- Additions to the modified text are shown in **<u>bolded double underline</u>**.
- Deletions to the modified text are shown in **~~bolded double strikeout~~**.

The Emergency Medical Services Authority has illustrated changes to the modified text from the third 15-day comment period in the following manner:

- Additions to the modified text are shown in ***<u>bolded italics double underline</u>***.
- Deletions to the modified text are shown in ***~~bolded italics double strikeout~~***.

The Emergency Medical Services Authority has illustrated changes to the modified text from the fourth 15-day comment period in the following manner:

- Additions to the modified text are shown in ***<u>highlighted bolded italics double underline</u>***.
- Deletions to the modified text are shown in ***~~highlighted bolded italics double strikeout~~***.

California Code of Regulations
Title 22. Social Security
Division 9. Prehospital Emergency Medical Services
Chapter 4. Paramedic

1   **ARTICLE 1. DEFINITIONS**
2
3   **§ 100137. Paramedic Training Program Approving Authority.**
4   <u>(a)</u> "Paramedic training program approving authority" means an agency or person
5   authorized by this Chapter to approve a Paramedic training program and/or a Critical
6   Care Paramedic (CCP) training program, as follows:

1

1
2 (a) (1) ~~The approving authority for a~~ A paramedic ~~Paramedic~~ training program and/or a
3 ~~Critical Care Paramedic (CCP)~~ training program conducted by a ~~qualified~~ qualified
4 statewide public safety agency shall be approved by the director of the Authority.
5
6 (b) (2) ~~The approving authority for any~~ Any other paramedic ~~Paramedic~~ training program
7 and/or a ~~Critical Care Paramedic (CCP)~~ training program not included in subsection (1)
8 ~~(a)~~ shall be approved by the local EMS agency (LEMSA) ~~which~~ that has jurisdiction in
9 the ~~area in which~~ county where the training program is located. ~~headquartered.~~
10
11 Note: Authority cited: Sections 1797.107 and 1797.172, Health and Safety Code.
12 Reference: Sections 1797.172, 1797.200 and 1797.208, Health and Safety Code.
13
14 **§ 100140. ~~Licensure~~ Psychomotor Skills Examination.**
15 "Psychomotor Skills examination" ~~or practical examination"~~ means the National Registry
16 of Emergency Medical Technicians (NREMT) ~~EMT~~-Paramedic ~~Practical~~ Psychomotor
17 Skills Examination to test the skills of an individual applying for licensure as a
18 paramedic. ~~Examination results shall be valid for application purposes for two (2) years~~
19 ~~from the date of examination.~~
20
21 Note: Authority cited: Sections 1797.107, 1797.172, 1797.175, 1797.185 and 1797.194,
22 Health and Safety Code. Reference: Sections 1797.172, 1797.175, 1797.185 and
23 1797.194, Health and Safety Code.
24
25 **§ 100141. ~~Licensure~~ Cognitive Written Examination.**
26 ~~"Licensure~~ "Cognitive Written Examination" means the NREMT ~~EMT~~-Paramedic ~~Written~~
27 Cognitive Written Examination to test an individual applying for licensure as a
28 paramedic. ~~Examination results shall be valid for application purposes for two (2) years~~
29 ~~from date of examination.~~
30
31 Note: Authority cited: Sections 1797.107, 1797.172, 1797.175, 1797.185 and 1797.194,
32 Health and Safety Code. Reference: Sections 1797.63, 1797.172, 1797.175, 1797.185,
33 1797.194 and 1797.210, Health and Safety Code.
34
35 **§ 100141.1. High Fidelity Simulation**
36 High Fidelity Simulation means using computerized manikins, monitors, and similar
37 devices or augmented virtual reality environments that are operated by a technologist
38 from another location to produce audible sounds and to alter and manage physiological
39 changes within the manikin to include, but not be limited to, altering the heart rate,
40 respirations, chest sounds, and saturation of oxygen.
41
42 Note: Authority cited: Sections 1797.107, 1797.172, 1797.175, 1797.185 and 1797.194,
43 Health and Safety Code. Reference: Sections 1797.63, 1797.172, 1797.175, 1797.185,
44 1797.194 and 1797.210, Health and Safety Code.
45
46 **§ 100143.1 Electronic Health Record**

1 "Electronic health record" or EHR, or electronic patient care record or ePCR means real
2 time, patient-centered records that make information available securely to authorized
3 users in a digital format capable of being shared with other providers across more than
4 one health care organization.
5
6 Note: Authority cited: Sections 1797.107, 1797.122 and 1797.227 Health and Safety
7 Code. Reference: Sections 1797.107, 1797.122 and 1797.227, Health and Safety Code.
8
9 **§ 100144. Critical Care Paramedic.**
10 A "Critical Care Paramedic" (CCP) or ~~Flight Paramedic (FP)~~ is an individual who is
11 educated and trained in critical care transport, whose scope of practice is in accordance
12 to the standards prescribed by this Chapter, has completed a training program as
13 specified in Section 100155(c), holds a current certification as a CCP by the
14 International Board of Specialty Certification (IBSC), Board for Critical Care Transport
15 Paramedic Certification (BCCTPC), who has a valid license issued pursuant to this
16 Chapter, and is accredited by a LEMSA in which their paramedic service provider is
17 based.
18
19 Note: Authority cited: Sections 1797.107, 1797.172 and 1797.194, Health and Safety
20 Code. Reference: Sections 1797.84, 1797.172, 1797.185 and 1797.194, Health and
21 Safety Code.
22
23 **§ 100144.1. Flight Paramedic.**
24 A "Flight Paramedic" (FP) is an individual who is educated and trained in critical care
25 transport, whose scope of practice is in accordance to the standards prescribed by this
26 Chapter, has completed a training program as specified in Section 100155(c), holds a
27 current certification as a FP by the International Board of Specialty Certification (IBSC),
28 Board for Critical Care Transport Paramedic Certification (BCCTPC), who has a valid
29 license issued pursuant to this Chapter, and is accredited by a LEMSA in which their
30 paramedic service provider is based.
31
32 Note: Authority cited: Sections 1797.107, 1797.172 and 1797.194, Health and Safety
33 Code. Reference: Sections 1797.84, 1797.172, 1797.185 and 1797.194, Health and
34 Safety Code.
35
36 **ARTICLE 2. GENERAL PROVISIONS**
37
38 **§ 100146. Scope of Practice of Paramedic.**
39 (a) A paramedic may perform any activity identified in the scope of practice of an EMT
40 in Chapter 2 of this Division, or any activity identified in the scope of practice of an
41 Advanced EMT (AEMT) in Chapter 3 of this Division without requiring a separate
42 certification.
43
44 (b) A licensed paramedic shall be affiliated with an approved paramedic service provider
45 in order to perform the scope of practice specified in this Chapter.
46

3

1 (c) A paramedic student or a licensed paramedic, as part of an organized EMS system,
2 while caring for patients in a hospital as part of his/her training or continuing education
3 (CE) under the direct supervision of a physician, registered nurse, or physician
4 assistant, or while at the scene of a medical emergency or during transport, or during
5 interfacility transfer, or while working in a small and rural hospital pursuant to Section
6 1797.195 of the Health and Safety Code, may perform the following procedures or
7 administer the following medications when such are approved by the medical director of
8 the LEMSA and are included in the written policies and procedures of the LEMSA.
9
10 (1) Basic Scope of Practice:
11
12 (A) Utilize electrocardiographic devices and monitor electrocardiograms, including 12-
13 lead electrocardiograms (ECG).
14
15 (B) Perform defibrillation, synchronized cardioversion, and external cardiac pacing.
16
17 (C) Visualize the airway by use of the laryngoscope and remove foreign body(ies) with
18 Magill forceps.
19
20 (D) Perform pulmonary ventilation by use of lower airway multi-lumen adjuncts, the
21 esophageal airway, perilaryngeal airways, stomal intubation, and adult oral
22 endotracheal intubation.
23
24 (E) Utilize mechanical ventilation devices for continuous positive airway pressure
25 (CPAP)/bi-level positive airway pressure (BPAP) and positive end expiratory pressure
26 (PEEP) in the spontaneously breathing patient.
27
28 (F) Institute intravenous (IV) catheters, saline locks, needles, or other cannulae (IV
29 lines), in peripheral veins and monitor and administer medications through pre-existing
30 vascular access.
31
32 (G) Institute intraosseous (IO) needles or catheters.
33
34 (H) Administer IV or IO glucose solutions or isotonic balanced salt solutions, including
35 Ringer's lactate solution.
36
37 (I) Obtain venous blood samples.
38
39 (J) Use laboratory devices, including point of care testing, for pre-hospital screening use
40 to measure lab values including, but not limited to: glucose, capnometry, capnography,
41 and carbon monoxide when appropriate authorization is obtained from State and
42 Federal agencies, including from the Centers for Medicare and Medicaid Services
43 pursuant to the Clinical Laboratory Improvement Amendments (CLIA).
44
45 (K) Utilize Valsalva maneuver.
46

4

1 (L) Perform percutaneous needle cricothyroidotomy.
2
3 (M) Perform needle thoracostomy.
4
5 (N) Perform nasogastric and orogastric tube insertion and suction.
6
7 (O) Monitor thoracostomy tubes.
8
9 (P) Monitor and adjust IV solutions containing potassium, equal to or less than 40
10 mEq/L.
11
12 (Q) Administer approved medications by the following routes: IV, IO, intramuscular,
13 subcutaneous, inhalation, transcutaneous, rectal, sublingual, endotracheal, intranasal,
14 oral or topical.
15
16 (R) Administer, using prepackaged products when available, the following medications:
17
18 1. 10%, 25% and 50% dextrose;
19
20 2. activated charcoal;
21
22 3. adenosine;
23
24 4. aerosolized or nebulized beta-2 specific bronchodilators;
25
26 5. amiodarone;
27
28 6. aspirin;
29
30 7. atropine sulfate;
31
32 8. pralidoxime chloride;
33
34 9. calcium chloride;
35
36 10. diazepam;
37
38 11. diphenhydramine hydrochloride;
39
40 12. dopamine hydrochloride;
41
42 13. epinephrine;
43
44 14. fentanyl;
45
46 15. glucagon;

5

1
2   16. ipratropium bromide;
3
4   17. lorazepam;
5
6   18. midazolam;
7
8   19. lidocaine hydrochloride;
9
10 20. magnesium sulfate;
11
12 21. morphine sulfate;
13
14 22. naloxone hydrochloride;
15
16 23. nitroglycerine preparations, except IV, unless permitted under (c)(2)(A) of this
17 section;
18
19 24. ondansetron;
20
21 25. sodium bicarbonate.
22
23 (S) In addition to the approved paramedic scope of practice, the CCP or FP may
24 perform the following procedures and administer medications, as part of the basic scope
25 of practice for interfacility transports when approved by the LEMSA medical director.
26 when a licensed and accredited paramedic has completed a Critical Care Paramedic
27 (CCP) training program as specified in Section 100160(b) and successfully completed
28 competency testing, holds a current certification as a CCP from the BCCTPC, and other
29 requirements as determined by the medical director of the LEMSA.
30
31 1. set up and maintain thoracic drainage systems;
32
33 2. set up and maintain mechanical ventilators;
34
35 3. set up and maintain IV fluid delivery pumps and devices;
36
37 4. blood and blood products;
38
39 5. glycoprotein IIB/IIIA inhibitors;
40
41 6. heparin IV;
42
43 7. nitroglycerin IV;
44
45 8. norepinephrine;
46

6

1   9. thrombolytic agents;

2

3   10. maintain total parenteral nutrition;

4

5   (2) Local Optional Scope of Practice:

6

7   (A) Perform or monitor other procedure(s) or administer any other medication(s)
8   determined to be appropriate for paramedic use~~, in the professional judgment of the~~ by
9   the medical director of the LEMSA, that have been approved by the Director of the
10   Authority. Pparamedics shall demonstrate competency in performing these procedures
11   and administering these medications through training and successful testing. ~~when the~~
12   ~~paramedic has been trained and tested to demonstrate competence in performing the~~
13   ~~additional procedures and administering the additional medications.~~

14

15   (B) The medical director of the LEMSA shall submit a written request, Form #EMSA-
16   0391, revised 01/17, ~~Revised 03/18/03~~ incorporated herein by reference, to~~, and obtain~~
17   ~~approval from,~~ the Director of the Authority for approval of any procedures or
18   medications proposed for use in accordance with Section 1797.172(b) of the Health and
19   Safety Code ~~for any procedures or medications proposed for use pursuant to this~~
20   ~~subsection~~ prior to implementation. ~~of these medication(s) and or procedure(s).~~

21

22   (C) The Authority shall, within fourteen (14) days of receiving Form #EMSA-
23   0391,revised 01/17, ~~the request,~~ notify the medical director of the LEMSA ~~submitting~~
24   ~~request Form #EMSA-0391~~ that the ~~request~~ form has been received and shall specify
25   what information, if any, is missing.

26

27   (D) The Director of the Authority, in consultation with the Emergency Medical Services
28   Medical Directors Association of California's (EMDAC) Scope of Practice Committee,
29   shall approve or disapprove the request for additional procedures and/or administration
30   of medications and notify the LEMSA medical director of the decision within ninety (90)
31   days of receipt of the completed request. ~~Approval is for a three (3) year period and~~ An
32   approved status shall be in effect for a period of three (3) years. An approved status
33   may be renewed for another three (3) year period, ~~based on evidence from~~ upon the
34   authority's receipt of a written request that includes, but is not limited to, the following
35   information: ~~at a minimum~~ the utilization of the procedure(s) or medication(s), beneficial
36   effects, adverse reactions or complications, ~~appropriate~~ statistical evaluation, and
37   general conclusion.

38

39   (E) The Director of the Authority, in consultation with the EMDAC Scope of Practice
40   Committee ~~a committee of the LEMSA medical directors named by the EMDAC~~
41   ~~Emergency Medical Directors Association of California,~~ may suspend or revoke
42   approval of any previously approved additional procedure(s) or medication(s) for cause.

43

44   (d) The medical director of the LEMSA may develop policies and procedures or
45   establish standing orders allowing the paramedic to initiate any paramedic activity in the
46   approved scope of practice without voice contact for medical direction from a physician,

7

1 authorized registered nurse, or mobile intensive care nurse (MICN), provided that an
2 EMSQIP, as specified in Chapter 12 of this Division, is in place. as specified in Chapter
3 12 of this Division.
4
5 Note: Authority cited: Sections 1797.107, 1797.172, 1797.185, 1797.192, 1797.195 and
6 1797.214, Health and Safety Code. Reference: Sections 1797.56, 1797.172, 1797.178
7 and 1797.185, Health and Safety Code.
8
9 **§ 100148. Responsibility of the LEMSA.**
10 (a) The LEMSA that authorizes an ALS program shall establish policies and procedures
11 approved by the medical director of the LEMSA that shall include:
12
13 (a) (1) Approval, denial, revocation of approval, suspension, and monitoring of the ALS
14 components of the EMS System such as training programs, base hospitals or
15 alternative base stations, and paramedic service providers.
16
17 (b) (2) Assurance of compliance with provisions of this Chapter. Chapter by the
18 paramedic program and the EMS system.
19
20 (c) (b) Submission to the Authority, as changes occur, of the following information on
21 the approved paramedic training programs: The LEMSA shall submit to the Authority,
22 along with any changes to, the following paramedic training program information:
23
24 (1) Name of program director and/or program contact;
25
26 (2) Program address Address, phone number, email address, website address, and
27 facsimile number;
28
29 (3) Date of program approval, date classes will initially begin, and date of program
30 expiration.
31
32 (4) Date of Commission on Accreditation of Allied Health Education Programs
33 (CAAHEP) approval;
34
35 (5) Date of Bureau of Private Post-Secondary Education (BPPE) approval for private
36 post-secondary educational institutions;
37
38 (6) Issue date of Committee on Accreditation of Educational Programs for the
39 Emergency Medical Services Professions (CoAEMSP) letter of review (LoR).
40
41 (d) (c) Development or approval, implementation and enforcement of policies for
42 medical control, medical accountability, and an EMSQIP of the paramedic services,
43 including:
44
45 (1) Treatment and triage protocols.
46

8

1 (2) Patient care record and reporting requirements.
2
3 (3) Medical care audit system.
4
5 (4) Role and responsibility of the base hospital and paramedic service provider.
6
7 (e) (d) System data collection and evaluation.
8
9 Note: Authority cited: Sections 1797.107 and 1797.172, Health and Safety Code.
10 Reference: Sections 1797.172, 1797.178, 1797.200, 1797.202, 1797.204, 1797.208,
11 1797.220, 1797.218 1798 and 1798.100, Health and Safety Code.
12
13 **ARTICLE 3. PROGRAM REQUIREMENTS FOR PARAMEDIC TRAINING**
14 **PROGRAMS**
15
16 **§ 100149. Approved Training Programs.**
17 (a) An approved paramedic training program or an institution eligible for paramedic
18 training program approval, as defined in Section 100149(j)(i) of this Chapter, may
19 provide CCP training upon approval by the paramedic training program approving
20 authority. The purpose of a paramedic training program shall be:
21
22 The purpose of a paramedic training program shall be:
23
24 (1) to prepare individuals to render prehospital ALS within an organized EMS system;
25 and
26
27 (2) to prepare individuals to render critical care transport within an organized EMS
28 system
29
30 (b) By January 1, 2004,all All approved paramedic training programs approved by a
31 paramedic training program approving authority prior to January 1, 2000, shall be
32 accredited and shall maintain current accreditation, or be in the process of receiving
33 accreditation approval by the Commission on Accreditation of Allied Health Education
34 Programs (CAAHEP), CAAHEP upon the recommendation of CoAEMSP the Committee
35 on Accreditation of Educational Programs for the Emergency Medical Services
36 Professions (CoAEMSP), in order to continue to operate as an approved paramedic
37 training program.
38
39 (c) All approved paramedic training programs shall: approved by a paramedic training
40 program approving authority January 1, 2000, or thereafter shall submit their
41 application, fee, and self-study to CoAEMSP for accreditation within twelve (12) months
42 of the startup of classes and receive and maintain CAAHEP accreditation no later than
43 two (2) years from the date of application to CoAEMSP for accreditation in order to
44 continue to operate as an approved paramedic training program.
45 (1) Receive a Letter of Review (LoR) from CoAEMSP prior to starting classes; and
46

9

1 (2) Submit their application, fee, and Initial Self-Study Report (ISSR) to CoAEMSP for
2 accreditation within six (6) months of the first class' graduation; and
3
4 (3) Receive and maintain CAAHEP accreditation no later than two (2) years from the
5 date of the ISSR submission to CoAEMSP for accreditation.
6
7 (d) Paramedic training programs approved according to the provisions of this Chapter
8 shall provide the following information in writing to all their paramedic training program
9 applicants prior to the applicants' enrollment in the paramedic training program:
10
11 (1) The date by which the paramedic training program must submit their CAAHEP
12 Request for Accreditation Services (RAS) form and ISSR application and self-study for
13 initial accreditation or the date their application for accreditation renewal was sent to
14 CoAEMSP.
15
16 (2) The date by which the paramedic training program must be initially accredited or the
17 date have their its accreditation must be renewed by CAAHEP.
18
19 (3) (e) Failure of the paramedic training program to maintain its LoR, submit their RAS
20 form application and ISSR to CoAEMSP, self-study or obtain and maintain its their
21 accreditation renewal to CoAEMSP with CAAHEP, as described in 100149(c), by the
22 date specified will shall result in withdrawal of program approval as specified in Section
23 100162 of this Chapter. closure of the paramedic training program by their respective
24 paramedic training program approving authority, unless the paramedic training program
25 approving authority has approved a plan for meeting compliance as provided in Section
26 100157 of this Chapter. When a paramedic training program approval is revoked under
27 this provision, the paramedic training program course director must demonstrate to the
28 satisfaction of their respective paramedic training program approving authority that the
29 deficiency for which the paramedic training program approval was revoked has been
30 rectified before submitting a new application for paramedic training program approval.
31
32 (4) Failure of the paramedic training program to obtain or maintain CAAHEP
33 accreditation by the required date will result in closure of the paramedic training
34 program by their respective paramedic training program approving authority, unless the
35 paramedic training program approving authority has approved a plan for meeting
36 compliance as provided in Section 100157 of this Chapter. When a paramedic training
37 program approval has been revoked under this provision, the paramedic training
38 program course director must demonstrate to the satisfaction of their respective
39 paramedic training program approving authority that the deficiency for which the
40 paramedic training program approval was revoked has been rectified before submitting
41 a new application for paramedic training program approval.
42
43 (5) (f) Students graduating from a paramedic training program that fail to apply, receive,
44 for accreditation with, receive accreditation from, or maintain CAAHEP accreditation
45 with, CAAHEP by the dates required will not be eligible for state licensure as a
46 paramedic.

1

2　(e) (g) Paramedic training programs shall submit to their respective paramedic training
3　program approving authority all documents submitted to, and received from, CoAEMSP
4　and CAAHEP for accreditation, including but not limited to, the RAS form, ISSR, and
5　initial application and self-study for accreditation and the documents required for
6　maintaining accreditation.

7

8　(f) (h) Paramedic training programs shall submit to the Authority the date their initial
9　RAS form application was submitted to CoAEMSP and copies of documentation
10　received from CoAEMSP and/or CAAHEP verifying accreditation.

11

12　(g) Paramedic training program approving authorities shall revoke approval, in
13　accordance with Section 100162 of this Chapter, of any paramedic training program
14　which fails to comply with subsections (b) through (e) of this Section.

15

16　(h) (i) Approved paramedic training programs shall participate in the EMSQIP of their
17　respective paramedic training program approving authority. In addition, an approved
18　paramedic training program, which is conducting a paramedic training program outside
19　the jurisdiction of their approving authority, shall also agree to participate in the EMSQIP
20　of the LEMSA which has jurisdiction where the paramedic training program is being
21　conducted.

22

23　(i) (j) Eligibility for program approval shall be limited to the following institutions:

24

25　(1) Accredited universities, colleges, including junior and community colleges, and
26　private post-secondary schools as approved by the State of California, Department of
27　Consumer Affairs, and Bureau for Private Postsecondary Education.

28

29　(2) Medical training units of a branch of the United States Armed Forces or Coast Guard
30　of the United States.

31

32　(3) Licensed general acute care hospitals which meet the following criteria:

33

34　(A) Hold a special permit to operate a basic or comprehensive emergency medical
35　service pursuant to the provisions of Division 5;

36

37　(B) Provide continuing education (CE) to other health care professionals; and

38

39　(C) are accredited by a Centers for Medicare and Medicaid Services approved with
40　deeming authority.

41

42　(4) Agencies of government.

43

44　Note: Authority cited: Sections 1797.107, 1797.172 and 1797.173, Health and Safety
45　Code. Reference: Sections 1797.172, 1797.173, 1797.208 and 1797.213, Health and
46　Safety Code.

11

1

2 **§ 100150. Teaching Staff.**

3 (a) Each training program shall have ~~an approved~~ a program medical director who ~~shall~~

4 ~~be~~ is a physician currently licensed in the State of California, ~~who~~ has ~~two (2) years'~~

5 experience in emergency medicine ~~prehospital care in the last five (5) years,~~ and ~~who is~~

6 ~~qualified by~~ has education or experience in methods of instruction. Duties of the

7 program medical director shall include, but not be limited to the following:

8

9 (1) Review and approve educational content of the program curriculum, including

10 training objectives for the clinical and field instruction, to certify its ongoing

11 appropriateness and medical accuracy.

12

13 (2) Review and approve the quality of medical instruction, supervision, and evaluation of

14 the students in all areas of the program.

15

16 (3) Approval of hospital clinical and field internship experience provisions. ~~provision for~~

17 ~~hospital clinical and field internship experiences.~~

18

19 (4) Approval of principal instructor(s).

20

21 (b) Each training program shall have ~~an approved~~ a ~~course~~ program director who ~~shall~~

22 ~~be licensed in California as a physician,~~ is either a California licensed physician, a

23 registered nurse who has a baccalaureate degree, or a paramedic who has a

24 baccalaureate degree, or ~~shall be~~ an individual who holds a baccalaureate degree in a

25 related health ~~field or in~~ **_field or in_** education **_field_**. The ~~course~~ program director shall be

26 qualified by education and experience in methods, materials, and evaluation of

27 instruction, and shall have a minimum of one (1) year experience in an administrative or

28 management level position, and have a minimum of three (3) years academic or clinical

29 experience in prehospital care education. ~~within the last five (5) years.~~ Duties of the

30 ~~course~~ program director shall include, but not be limited to the following:

31

32 (1) Administration, organization and supervision of the educational program.

33

34 (2) In coordination with the program medical director, approve the principal instructor(s),

35 teaching assistants, field and hospital clinical preceptors, clinical and internship

36 assignments, and coordinate the development of curriculum, including instructional

37 objectives, and approve all methods of evaluation.

38

39 (3) Ensure training program compliance with this chapter and other related laws.

40

41 (4) Sign all course completion records.

42

43 (5) Ensure ~~that~~ the preceptor(s) are trained according to the curriculum in subsection

44 (e)(4).

45

1 (c) Each training program shall have a principal instructor(s), who <u>is responsible for</u>
2 <u>areas including, but not limited to, curriculum development, course coordination, and</u>
3 <u>instruction and shall meet the following criteria:</u> ~~may also be the program medical~~
4 ~~director or course director if the qualifications in subsections (a) and (b) are met, who~~
5 ~~shall:~~
6
7 (1) Be a physician, registered nurse, physician assistant, or paramedic, currently
8 certified or licensed in the State of California.
9
10 (2) Be knowledgeable in the course content of the <u>January 2009</u> United States
11 Department of Transportation (U.S. DOT) National Emergency Medical Services
12 Education Standards DOT HS 811 077 <u>E</u>A, ~~January 2009,~~ herein incorporated by
13 reference; and
14
15 (3) Have six (6) years <u>of</u> experience in an allied health field and an associate degree or
16 two (2) years <u>of</u> experience in an allied health field and a baccalaureate degree.
17
18 ~~(4) Instructors of tactical casualty care (TCC) topics shall be qualified by education and~~
19 ~~experience in TCC methods, materials, and evaluation of instruction,~~
20
21 ~~(4) Be responsible for areas including, but not limited to, curriculum development,~~
22 ~~course coordination, and instruction.~~
23
24 ~~(5)~~(4) Be qualified by education and experience <u>with at least forty (40) hours of</u>
25 <u>documented teaching methodology instruction in areas related to methods, materials,</u>
26 <u>and evaluation of instruction.</u> ~~in methods, materials, and evaluation of instruction, which~~
27 ~~shall be documented by at least forty (40) hours of instruction in teaching methodology.~~
28 ~~Following, but not limited to, are examples of courses that meet the required instruction~~
29 ~~in teaching methodology:~~
30
31 ~~(A) California State Fire Marshal (CSFM) "Training Instructor 1A, 1B, and 1C".,~~
32
33 ~~(B) National Fire Academy (NFA) "Fire Service Instructional Methodology" course., and~~
34
35 ~~(C) A course that meets the U. S. Department of Transportation/National Highway~~
36 ~~Traffic Safety Administration 2002 Guidelines for Educating EMS Instructors, such as~~
37 ~~the National Association of EMS Educators' EMS Educator Course.~~
38
39 ~~(6)~~(5) A Principal Instructor may also be the program medical director or program
40 director.
41
42 (d) Each CCP training program shall have a principal instructor(s) who ~~shall be~~ <u>is either</u>
43 licensed in California as a physician ~~and~~ <u>with</u> knowledge~~able~~ in the subject matter, a
44 registered nurse knowledgeable in the subject matter, or a paramedic with current CCP
45 certification or <u>a flight paramedic (FP)</u> ~~FP~~ certification from the ~~BCCTPC~~<u>International</u>

1 Board of Specialty Certification (IBSC) Board for Critical Care Transport Paramedic
2 Certification (BCCTPC).
3
4 (e) Each training program may have a teaching assistant(s) who ~~shall be an~~
5 ~~individual(s) qualified by~~ has training and experience to assist with teaching ~~of~~ the
6 course. ~~A~~ The teaching assistant(s) shall be supervised by a principal instructor, the
7 ~~course~~ program director and/or the program medical director.
8
9 (f) Each training program may have a clinical coordinator(s) who is either a Physician,
10 Registered Nurse, Physician Assistant, or a Paramedic currently licensed in California,
11 and who shall have two (2) years of academic or clinical experience in emergency
12 medicine or prehospital care. Duties of the program clinical coordinator shall include,
13 but not be limited to, the following:
14
15 (1) The coordination and scheduling of students with qualified clinical preceptors in
16 approved clinical settings as described in Section 100152.
17
18 (2) Ensuring adequate clinical resources exist for student exposure to the minimum
19 number and type of patient contacts established by the program as required for
20 continued CAAHEP accreditation.
21
22 (3) The tracking of student internship evaluation and terminal competency documents.
23
24 ~~(f)~~ (g) Each paramedic training program shall have a field preceptor(s) who meets the
25 following criteria: ~~shall:~~
26
27 (1) Be a certified or licensed paramedic; and
28
29 (2) Be working in the field as a certified or licensed paramedic for the last two (2) years;
30 and
31
32 (3) Be under the supervision of a principal instructor, the ~~course~~ program director and/or
33 the program medical director; and ~~director.~~
34
35 (4) Have completed a field preceptor training program approved by the LEMSA ~~and/or~~
36 ~~comply one that complies with the field preceptor guidelines approved by the LEMSA~~in
37 accordance with ~~CoAEMSP guidelines~~**CAAHEP Standards and Guidelines for the**
38 **Accreditation of Educational Programs in the Emergency Medical Services**
39 **Professions (2015)**. Training shall include ~~a~~ curriculum that will result in ~~the~~ preceptor
40 competency in the evaluation of paramedic students during the internship phase of the
41 training program and the completion of the following: ~~being competent to evaluate the~~
42 ~~paramedic student during the internship phase of the training program, and how to do~~
43 ~~the following in cooperation with the paramedic training program:~~
44
45 (A) Conduct a daily field evaluation of students.
46

1   (B) Conduct cumulative and final field evaluations of all students.
2
3   (C) Rate students for evaluation using written field criteria.
4
5   (D) Identify ALS contacts and requirements for graduation.
6
7   (E) Identify the importance of documenting student performance.
8
9   (F) Review the field preceptor requirements contained in this Chapter.
10
11   (G) Assess student behaviors using cognitive, psychomotor, and affective domains.
12
13   (H) Create a positive and supportive learning environment.
14
15   (I) Measure students against the standards of entry level paramedics.
16
17   (J) Identify appropriate student progress.
18
19   (K) Counsel the student who is not progressing.
20
21   (L) Identify training program support services available to the student and the preceptor.
22
23   (M) Provide guidance and applicable procedures to address student injuries or for
24   dealing with an injured student or student who has had an exposure to illness,
25   communicable disease or hazardous material.
26
27   (g) (h) Each training program shall have a hospital clinical preceptor(s) who shall meet
28   the following criteria:
29
30   (1) Be a physician, registered nurse or physician assistant currently licensed in the
31   State of California.
32
33   (2) Have worked in emergency medical care services or areas of medical specialization
34   for the last two (2) years.
35
36   (3) Be under the supervision of a principal instructor, the course program director,
37   and/or the program medical director.
38
39   (4) Receive training instruction in the evaluation of evaluating paramedic students in the
40   clinical settings. Means of instruction Instructional tools may include, but need not be
41   limited to, educational brochures, orientation, training programs, or training videos. and
42   Training shall include the following components of instruction: how to do the following in
43   cooperation with the paramedic training program:
44
45   (A) Evaluate a student's ability to safely administer medications and perform
46   assessments.

1
2 (B) Document a student's performance.
3
4 (C) Review clinical preceptor requirements contained in this Chapter.
5
6 (D) Assess student behaviors using cognitive, psychomotor, and affective domains.
7
8 (E) Create a positive and supportive learning environment.
9
10 (F) Identify appropriate student progress.
11
12 (G) Counsel the student who is not progressing.
13
14 (H) Provide guidance and ~~applicable~~ procedures for addressing student injuries or
15 ~~dealing with an injured student or student who has had an~~ exposure to illness,
16 communicable disease or hazardous material.
17
18 (i) Instructors of tactical casualty care (TCC) topics shall be qualified by education and
19 experience in TCC methods, materials, and evaluation of instruction,
20
21 Note: Authority cited: Sections 1797.107 and 1797.172, Health and Safety Code.
22 Reference: Sections 1797.172 and 1797.208, Health and Safety Code.
23
24 **§ 100153. Field Internship.**
25 (a) A field internship shall provide emergency medical care training and experience to
26 paramedic students under continuous supervision, instruction, and evaluation by an
27 authorized preceptor and shall promote student competency in medical procedures,
28 techniques, and the administration of medications as ~~supervised at all times by an~~
29 ~~authorized field preceptor to result in the paramedic student being competent to provide~~
30 ~~the medical procedures, techniques, and medications~~ specified in Section 100146, in
31 the prehospital emergency setting within an organized EMS system.
32
33 (b) An approved paramedic training program shall enter into a written agreement with ~~a~~
34 paramedic service provider(s) that provide field internship services to students. ~~to~~
35 ~~provide for field internship, as well as for a field preceptor(s) to directly supervise,~~
36 ~~instruct, and evaluate the students. The assignment of a student to a field preceptor~~
37 ~~shall be a collaborative effort between the training program and the provider agency. If~~
38 ~~the paramedic service provider is located outside the jurisdiction of the paramedic~~
39 ~~training program approving authority, then the training program shall do the following:~~
40 This agreement shall include provisions to ensure compliance of this Chapter.
41
42 (c) The medical director of the LEMSA where the internship is located shall have
43 medical control over the paramedic intern.
44
45 (d) The assignment of a student to a field preceptor shall be a collaborative effort
46 between the training program and the provider agency.

1
2 (1) The assignment of a student to a field preceptor shall be limited to duties associated
3 with the student's training or the student training program.
4
5 (e) If the paramedic service provider is located outside the jurisdiction of the paramedic
6 training program approving authority, the paramedic training program shall do the
7 following:
8
9 (1) Ensure the student ~~intern~~ receives orientation in collaboration with the LEMSA ~~in~~
10 ~~which~~ where the field internship will occur. ~~, ensure that the student has been oriented~~
11 ~~to that LEMSA,~~ The orientation shall includ~~eing~~ that LEMSA's local policies, ~~and~~
12 procedures, and treatment protocols,
13
14 (2) ~~contact the LEMSA where the paramedic service provider is located and r~~ Report to
15 ~~that~~ the LEMSA, where the field internship will occur, the name of the paramedic intern
16 ~~in their jurisdiction~~, the name of the ~~EMS~~ field internship provider, and the name of the
17 preceptor. ~~The paramedic intern shall be under the medical control of the medical~~
18 ~~director of the LEMSA in which the internship occurs.~~
19
20 ~~(c)~~ (3) ~~The training program shall be responsible for ensuring that the filed~~ Ensure the
21 field preceptor has the experience and training as required in Section 100150(g)(1) -(4).
22
23 ~~(d)~~ (f) The paramedic training program shall ~~not enroll any more students than the~~
24 ~~training program can commit to providing a filed internship to begin no later than ninety~~
25 ~~(90) days after a student's completion of the hospital clinical education and training~~
26 ~~portion of the training program.~~ enroll only the number of students it is able to place in
27 field internships within ninety (90) days of completion of their hospital clinical education
28 and training phase of the training program. The training program director and ~~a~~ student
29 may ~~mutually~~ agree to start the field internship at a later date, ~~for the filed internship to~~
30 ~~begin~~ in the event of special circumstances (e.g., student or preceptor illness or injury,
31 student's military duty, etc.). This agreement shall be in writing.
32
33 ~~(e)For at least half of the ALS patient contacts specified in Section 100154(b) the~~
34 ~~paramedic student shall be required to provide the full continuum of care of the patient~~
35 ~~beginning with the initial contact with the patient upon arrival at the scene through~~
36 ~~release of the patient to a receiving hospital or medical care facility.~~
37
38 ~~(f)~~ (g) ~~All interns,~~ The internship, regardless of the location, shall be ~~continuously~~
39 monitored by the training program staff, in collaboration with the assigned field
40 preceptor. ~~, regardless of the location of the internship, as described in written~~
41 ~~agreements between the training program and the internship provider. The training~~
42 ~~program shall document a student's progress, based on the assigned field preceptor's~~
43 ~~input, and identify specific weaknesses of the student, if any, and/or problems~~
44 ~~encountered by, or with, the student. Documentation of the student's progress, including~~
45 ~~any identified weaknesses or problems, shall be provided to the student at least twice~~
46 ~~during the student's field internship.~~

17

1
2　(h) Training program staff shall, upon receiving input from the assigned field preceptor,
3　document the progress of the student. Documentation shall include the identification of
4　student deficiencies and strengths and any training program obstacles encountered by,
5　or with, the student.
6
7　(i) Training program staff shall provide documentation reflecting student progress to the
8　student at least twice during the student's internship.
9
10　(g) (j) No more than one (1) EMT trainee, of any level, shall be assigned to a response
11　vehicle at any one time during the paramedic student's field internship.
12
13　Note: Authority cited: Sections 1797.107, 1797.172 and 1797.173, Health and Safety
14　Code. Reference: Sections 1797.172, 1797.173 and 1797.208, Health and Safety Code.
15
16　**§100154. Required Course Hours.**
17　(a) The total paramedic training program shall consist of not less than one thousand and
18　ninety (1090) one thousand and ninety-four (1094) hours. These training hours shall be
19　divided into:
20
21　(1) A minimum of four-hundred and fifty-four (454) (450) hours of didactic instruction
22　and skills laboratories that shall include not less than four (4) hours of training in tactical
23　casualty care principles as provided in Section 100155(b);
24
25　(2) The hospital clinical training shall consist of no less than one-hundred and sixty
26　(160) hours; and the field internship shall consist of no less than four-hundred and
27　eighty (480) hours.
28
29　(3) The field internship shall consist of no less than four-hundred and eighty (480)
30　hours.
31
32　(b) The student shall have a minimum of forty (40) documented ALS patient contacts
33　during the field internship as specified in Section 100153. An ALS patient contact shall
34　be defined as the student performance of one or more ALS skills, except cardiac
35　monitoring and CPR, on a patient.
36
37　(1) When available, up to ten (10) of the required ALS patient contacts may be satisfied
38　through the use of high fidelity adult simulation patient contacts as defined in Section
39　100141.1.
40
41　(2) Students shall document patient contacts utilizing an EHR system under supervision
42　of the preceptor.
43
44　(c) The student shall have a minimum of ten (10) twenty (20) documented experiences
45　performing the role of team lead during the field internship. A team lead shall be defined

18

as a student who, with minimal to no prompting by the preceptor, successfully takes charge of EMS operation in the field including, but not limited to, the following:

(1) Lead coordination of field personnel,

(2) Formulation of field impression,

(3) Comprehensively assessing patent conditions and acuity.

(4) Directing and implementing patient treatment,

(5) Determining patient disposition, and

(6) Leading the packaging and movement of the patient.

(d) The minimum hours shall not include the following:

(1) Course material designed to teach or test exclusively EMT knowledge or skills including CPR.

(2) Examination for student eligibility.

(3) The teaching of any material not prescribed in Section 100155 100160 of this Chapter.

(4) Examination for paramedic licensure.

(e) The total CCP training program shall consist of not less than two-hundred and two (202) hours. These training hours shall be divided into:

(1) A minimum of one-hundred and eight (108) hours of didactic and skills laboratories; and

(2) No less than ninety-four (94) hours of hospital clinical training as prescribed in Section 100152(b) of this Chapter.

(f) For at least half of the ALS patient contacts specified in Section 100154(b) the paramedic student shall be required to provide the full continuum of care of the patient beginning with the initial contact with the patient upon arrival at the scene through transfer of care to hospital personnel.

Note: Authority cited: Sections 1797.107 and, 1797.172, and 1797.173, Health and Safety Code. Reference: Section 1797.172 and 1797.173, Health and Safety Code.

§ 100155 Required Course Content.

1   (a) The content of a paramedic course shall meet the objectives contained in the
2   January 2009 U.S. Department of Transportation (DOT) National Emergency Medical
3   Services Education Standards, DOT HS 811 077EA, ~~January 2009, to result in the~~ and
4   be consistent with ~~paramedic being competent in~~ the paramedic basic scope of practice
5   specified in Section 100146(a) of this Chapter. The DOT HS 811 077 EA can be
6   accessed through the U.S. DOT National Highway Traffic Safety Administration at the
7   ~~following~~ National Highway Traffic Safety Administration **website** ~~address:~~
8   ~~http://www.ems.gov/education/nationalstandardandncs.html~~
9   ~~http://www.nhtsa.gov/~~ ***http://www.nhtsa.gov/***.
10
11 (b) In addition to the above, the content of the training course shall include a minimum
12 of four (4) hours of tactical casualty care (TCC) principles applied to violent
13 circumstances with at least the following topics and skills and shall be competency
14 based:
15
16 (1) History and Background of Tactical Casualty Care
17
18 (A) Demonstrate knowledge of tactical casualty care
19
20 1. History of active shooter and domestic terrorism incidents
21
22 2. Define roles and responsibilities of first responders including Law Enforcement, Fire
23 and EMS.
24
25 3. Review of local active shooter policies
26
27 4. Scope of Practice and Authorized Skills and procedures by level of training,
28 certification, and licensure zone
29
30 (2) Terminology and definitions
31
32 (A) Demonstrate knowledge of terminology
33
34 1. Hot zone/warm zone/cold zone
35
36 2. Casualty collection point
37
38 3. Rescue task force
39
40 4. Cover/concealment
41
42 (3) Coordination, Command and Control
43
44 (A) Demonstrate knowledge of Incident Command and how agencies are integrated into
45 tactical operations.
46

1   1. Demonstrate knowledge of team command, control and communication

2

3   a. Incident Command System (ICS) /National Incident Management System (NIMS)

4

5   b. Mutual Aid considerations

6

7   c. Unified Command

8

9   d. Communications, including radio interoperability

10

11   e. Command post

12

13   f. Staging areas

14

15   g. Ingress/egress

16

17   h. Managing priorities

18

19   (4) Tactical and Rescue Operations

20

21   (A) Demonstrate knowledge of tactical and rescue operations

22

23   1. Tactical Operations – Law Enforcement

24

25   a. The priority is to mitigate the threat

26

27   b. Contact Team

28

29   c. Rescue Team

30

31   2. Rescue Operations – Law Enforcement/EMS/Fire

32

33   a. The priority is to provide life-saving interventions to injured parties

34

35   b. Formation of Rescue Task Force (RTF)

36

37   c. Casualty collection points

38

39   (5) Basic Tactical Casualty Care and Evacuation

40

41   (A) Demonstrate appropriate casualty care at your scope of practice and certification

42

43   1. Demonstrate knowledge of the components of the Individual First Aid Kit (IFAK)
44   and/or medical kit.

45

46   2. Understand the priorities of Tactical Casualty Care as applied by zone.

21

1
2   3. Demonstrate competency through practical testing of the following medical treatment
3   skills:
4
5   a. Bleeding control
6
7   b. Apply Tourniquet
8
9   i. Self-Application
10
11 ii. Application on others
12
13 c. Apply Direct Pressure
14
15 d. Apply Pressure Dressing
16
17 e. Apply Hemostatic Dressing with Wound Packing, utilizing California EMSA-approved
18 products
19
20 2. Airway and Respiratory management
21
22 a. Perform Chin Lift/Jaw Thrust Maneuver
23
24 b. Recovery position
25
26 c. Position of comfort
27
28 d. Airway adjuncts
29
30 3. Chest/torso wounds
31
32 a. Apply Chest Seals, vented preferred
33
34 4. Demonstrate competency in patient movement and evacuation.
35
36 a. Drags and lifts.
37
38 b. Carries
39
40 5. Demonstrate knowledge of local multi-casualty/mass casualty incident protocols.
41
42 a. Triage procedures (START or SALT).
43
44 b. Casualty Collection Point.
45
46 c. Triage, Treatment and Transport.

22

1
2   (6) Threat Assessment.
3
4   (A) Demonstrate knowledge in threat assessment.
5
6   1. Understand and demonstrate knowledge of situational awareness
7
8   2. Pre-assessment of community risks and threats.
9
10   3. Pre-incident planning and coordination
11
12   4. Medical resources available.
13
14   (b)(c) The content of the CCP course shall include:
15
16   * * * * *
17
18   (d) Training programs in operation prior to the effective date of these regulations shall
19   submit evidence of compliance with this Chapter to the appropriate approving authority
20   as specified in Section 100137 of this Chapter within twelve (12) months after the
21   effective date of these regulations.
22
23   Note: Authority cited: Sections 1797.107 and 1797.172, Health and Safety Code.
24   Reference: Sections 1797.172, 1797.173, 1797.185 and 1797.213, Health and Safety
25   Code.
26
27   **§ 100156. Required Testing.**
28   (a) Approved paramedic and CCP training programs shall include ~~periodic~~ a minimum of
29   two (2) formative examinations and one (1) final comprehensive competency-based
30   examination~~s~~ to test the knowledge and skills specified in this Chapter.
31
32   (b) Documentation of ~~S~~ successful student clinical and field internship performance ~~in~~
33   ~~the clinical and field setting~~ shall be required prior to course completion.
34
35   Note: Authority cited: Sections 1797.107, 1797.172 and 1797.185, Health and Safety
36   Code. Reference: Sections 1797.172, 1797.185, 1797.208, 1797.210 and 1797.213,
37   Health and Safety Code.
38
39   **§ 100157. Course Completion Record.**
40   (a) ~~Approved paramedic training program and/or CCP training program shall issue a~~ A
41   tamper resistant course completion record shall be issued to each person who has
42   successfully completed the paramedic training program and/or CCP training program.
43   The course completion record shall be issued no later than ten (10) working days from
44   the date ~~of~~ the student~~'s~~ successfully ~~completion of~~ completes the paramedic and/or
45   CCP training program.
46

1   (b) The course completion record shall contain the following:
2
3   (1) The name of the individual.
4
5   (2) The date of completion.
6
7   (3) The following statement:
8
9   (A) "The individual named on this record has successfully completed an approved
10 paramedic training program", or
11
12 (B) "The individual named on this record has successfully completed an approved
13 Critical Care Paramedic training program."
14
15 (4) The name of the ~~paramedic~~ training program ~~or CCP training program~~ approving
16 authority.~~, depending on the training program being taught.~~
17
18 (5) The signature of the ~~course~~program director.
19
20 (6) The name and location of the training program issuing the record.
21
22 (7) The following statement in bold print: "This is not a paramedic license."
23
24 (8) For paramedic training, a list of <u>the approved</u> optional scope of practice procedures
25 and/or medications <u>taught in the course</u> ~~approved~~ pursuant to subsection (c)(2)(A)-(D)
26 of Section 100146. ~~taught in the course.~~
27
28 (9) For CCP training, a list of <u>the approved</u> procedures and medications <u>taught in the</u>
29 <u>course</u> ~~approved~~ pursuant to subsection (c)(1)(S)(1-10) of Section 100146. ~~taught in the~~
30 ~~course.~~
31
32 Note: Authority cited: Sections 1797.107 and 1797.172, Health and Safety Code.
33 Reference: Section 1797.172, Health and Safety Code.
34
35 **§ 100158. Student Eligibility.**
36 (a) To be eligible to enter a paramedic training program an individual shall meet the
37 following requirements:
38
39 (1) Possess a high school diploma or general education equivalent; and
40
41 (2) possess a current basic cardiac life support (CPR) card equivalent to the current
42 American Heart Association's Guidelines for Cardiopulmonary Resuscitation and
43 Emergency Cardiovascular Care at the healthcare provider level; and
44
45 (3) possess a current EMT certificate or NREMT-Basic registration; or
46

24

1 (4) possess a current AEMT certificate in the State of California; or
2
3 (5) be currently registered as an Advanced-EMT Intermediate with the NREMT.
4
5 (b) Starting January 1, 2021, the following prerequisites shall be met:
6
7 (1) A college level course in introductory human anatomy and physiology with lab, and
8
9 (2) A college level course in introductory psychology.
10
11 (b)(c)(b) To be eligible to enter a CCP training program an individual shall be currently
12 licensed, and accredited, in California as a paramedic with three (3) years of basic
13 paramedic practice.
14
15 Note: Authority cited: Sections 1797.107 and 1797.172, Health and Safety Code.
16 Reference: Sections 1797.172 and 1797.208, Health and Safety Code.
17
18 **§ 100159. Procedure for Training Program Approval.**
19 (a) Eligible training institutions, as defined in Section 100149(j), shall submit a written
20 request for training program approval to the paramedic training program approving
21 authority. A paramedic training program approving authority may deem a training
22 program approved that has been accredited by the CAAHEP upon submission of proof
23 of such accreditation, without requiring the paramedic training program to submit for
24 review the information required in subsections (b) and (c) of this section.
25
26 (b) The paramedic training program approving authority shall receive and review the
27 following documentation prior to program approval:
28
29 (1) A statement verifying that the course content meets the requirements contained in
30 the U.S. DOT National Education Standards DOT HS 811 077 EA January 2009.
31
32 (2) A statement verifying that the CCP training program course content meets the
33 requirements contained in Section 100160(b) of this Chapter. The CCP training program
34 must also verify compliance with Subsections (b)(3)-(b)(6) and (b)(8)-(b)(9) of this
35 Section.
36
37 (3) (2) An outline of course objectives.
38
39 (4) (3) Performance objectives for each skill.
40
41 (5) (4) The names and qualifications of the training program course director, program
42 medical director, and principal instructors.
43
44 (6) (5) Provisions for supervised hospital clinical training including student evaluation
45 criteria and standardized forms for evaluating paramedic students; and monitoring of
46 preceptors by the training program.

25

1
2   (7) (6) Provisions for supervised field internship including student evaluation criteria and
3   standardized forms for evaluating paramedic students; and monitoring of preceptors by
4   the training program.
5
6   (8) (7) The location at which the courses are to be offered and their proposed dates.
7
8   (9) (8) Written agreements between the paramedic training program and a hospital(s)
9   and other clinical setting(s), if applicable, for student placement for clinical education
10 and training.
11
12 (10) (9) Written contracts or agreements between the paramedic training program and a
13 provider agency (ies) for student placement for field internship training.
14
15 (11) (10) A copy of an approved CoAEMSP LoR issued to the training institution
16 applying for approval or documentation of current CAAHEP accreditation.
17
18 (c) The paramedic training program approving authority shall review the following prior
19 to program approval:
20
21 (1) (11) Samples of written and skills examinations administered by the training
22 program. for periodic testing.
23
24 (2) (12) Samples of a A final written examination administered by the training program.
25
26 (3) (13) Evidence that the training program provides of adequate training program
27 facilities, equipment, examination securities security and student record keeping.
28
29 (14) CCP programs shall submit a statement verifying the CCP training program course
30 content complies with the requirements of subsection 100155(c) of this Chapter and
31 documentation listed in subsections (b)(2)(B)(C)(D)(E)(G) and (H) of this Section, If
32 applicable.
33
34 (d) (c) The paramedic training program approving authority shall submit to the Authority
35 an outline of program objectives and eligibility on each training program being proposed
36 for approval in order to allow the Authority to make the determination required by
37 section 1797.173 of the Health and Safety Code. Upon request by the Authority, any or
38 all materials submitted by the training program shall be submitted to the Authority.
39
40 (d) Paramedic training programs will be approved by meeting all requirements in
41 subsection (b) of this section. Notification of program approval or deficiencies with the
42 application shall be made in writing by the paramedic training program approving
43 authority to the requesting training program in a time period not to exceed ninety (90)
44 days.
45

26

1 (e) The paramedic training program approving authority shall establish the effective date
2 of program approval in writing upon the satisfactory documentation of compliance with
3 all program requirements.
4
5 (f) Paramedic training program approval shall be valid for four (4) years ending on the
6 last day of the month in which it was issued and may be renewed every four (4) years
7 subject to the procedure for program approval specified in Section 100159(b).
8
9 Note: Authority cited: Sections 1797.107 and 1797.172, Health and Safety Code.
10 Reference: Sections 1797.172, 1797.173 and 1797.208, Health and Safety Code; and
11 Section 15376, Government Code.
12
13 **§ 100160. Program Review and Reporting.**
14 (a) All program materials specified in this Chapter shall be subject to ~~periodic~~ review by
15 the paramedic training program approving authority and ~~may~~ shall also be made
16 available for review ~~reviewed~~ upon request by the Authority.
17
18 (b) All programs shall be subject to ~~periodic~~ on-site evaluation by the paramedic
19 approving authority and may also be evaluated by the Authority.
20
21 (c) Any person or agency, conducting a training program shall provide written
22 notification of changes to ~~notify~~ the paramedic training program approving authority ~~in~~
23 ~~writing, in advance when possible, and in all cases within thirty (30) days of any change~~
24 ~~in~~ of course objectives, hours of instruction, ~~course~~program director, program medical
25 director, principal instructor, provisions for hospital clinical experience, or field
26 internship. Written notification shall be provided in advance, when possible, and no later
27 than thirty (30) days after a change(s) has been identified.
28
29 Note: Authority cited: Sections 1797.107 and 1797.172, Health and Safety Code.
30 Reference: Sections 1797.172, 1797.173 and 1797.208, Health and Safety Code.
31
32 **~~§ 100161. Paramedic Training Program Approval.~~**
33 ~~(a) The paramedic training program approving authority shall, within thirty (30) working~~
34 ~~days of receiving a request for training program approval, notify the requesting training~~
35 ~~program that the request has been received, and shall specify what information, if any,~~
36 ~~is missing.~~
37
38 ~~(b) Paramedic training program approval or disapproval shall be made in writing by the~~
39 ~~paramedic training program approving authority to the requesting training program after~~
40 ~~receipt of all required documentation. This time period shall not exceed three (3)~~
41 ~~months.~~
42
43 ~~(c) The paramedic training program approving authority shall establish the effective date~~
44 ~~of program approval in writing upon the satisfactory documentation of compliance with~~
45 ~~all program requirements.~~
46

27

1 (d) Paramedic training program approval shall be for four (4) years following the
2 effective date of approval and may be renewed every four (4) years subject to the
3 procedure for program approval specified in this chapter.
4
5 Note: Authority cited: Sections 1797.107 and 1797.172, Health and Safety Code.
6 Reference: Sections 1797.172, 1797.173 and 1797.208, Health and Safety Code; and
7 Section 15376, Government Code.
8
9 **§ 100162. Withdrawal of Program Approval.**
10 (a) Noncompliance with any criterion required for program approval, use of any
11 unqualified teaching personnel, or noncompliance with any other applicable Failure to
12 comply with the provisions of this Chapter may result in denial, probation, suspension or
13 revocation of program approval by the paramedic training program approving authority.
14 Notification of noncompliance and action to place on probation, suspend or revoke shall
15 be done as follows:
16
17 (b) The requirements for training program noncompliance notification and actions are as
18 follows:
19
20 (1) A paramedic training program approving authority shall provide written notification of
21 noncompliance notify the approved training program course director in writing, by
22 certified mail, of the provisions of with this Chapter with which to the paramedic training
23 program provider found in violation. The notification shall be in writing and sent by
24 certified mail to the paramedic training program course director.is not in compliance.
25
26 (2) Within fifteen (15) days of from receipt of the noncompliance notification of
27 noncompliance, the approved training program shall submit in writing, by certified mail,
28 to the paramedic training program approving authority one of the following:
29
30 (A) Evidence of compliance with the provisions of this Chapter, or
31
32 (B) A plan for meeting compliance with to comply with the provisions of this Chapter
33 within sixty (60) days from the day of receipt of the notification of noncompliance.
34
35 (3) Within fifteen (15) days of from receipt of the response from the approved training
36 program's response, or within thirty (30) days from the mailing date of the
37 noncompliance notification, if no response is received from the approved paramedic
38 training program, the paramedic training program approving authority shall issue a
39 decision letter by certified mail to notify the Authority and the approved paramedic
40 training program. in writing, by certified mail, of the The letter shall identify the
41 paramedic training program approving authority's decision to take one or more of the
42 following actions: accept the evidence of compliance, accept the plan for meeting
43 compliance, place on probation, suspend or revoke the training program approval.
44
45 (A) Accept the evidence of compliance provided.
46

1   (B) Accept the plan for meeting compliance provided.
2
3   (C) Place the training program on probation.
4
5   (D) Suspend or revoke the training program approval.
6
7   (4) The decision letter shall also include, but not be limited to, the following information:
8
9   (A) Date of the program training approval authority's decision;
10
11   (B) Specific provisions found noncompliant by the training approval authority, if
12   applicable;
13
14   (C)The probation or suspension effective and ending date, if applicable;
15
16   (D) The terms and conditions of the probation or suspension, if applicable;
17
18   (E)The revocation effective date, if applicable;
19
20   (4) (5) The paramedic training program approving authority shall establish the probation,
21   suspension, or revocation effective dates no sooner than sixty (60) days after the date
22   of the decision letter, as described in subsection (3) of this Section.If the paramedic
23   training program approving authority decides to suspend or revoke the training program
24   approval, the notification specified in subsection (a)(3) of this section shall include the
25   beginning and ending dates of the probation or suspension and the terms and
26   conditions for lifting of the probation or suspension or the effective date of the
27   revocation, which may not be less than sixty (60) days from the date of the paramedic
28   training program approving authority's letter of decision to the Authority and the training
29   program.
30
31   Note: Authority cited: Sections 1797.107 and 1797.172, Health and Safety Code.
32   Reference: Sections 1797.172, 1797.208 and 1798.202, Health and Safety Code.
33
34   **ARTICLE 4. APPLICATIONS AND EXAMINATIONS**
35
36   **§ 100163 Written and Cognitive Written and Psychomotor Skills Examination.**
37   (a) Applicants shall comply with the procedures for examination established by the
38   Authority and the NREMT and shall not violate or breach the security of the
39   examination. Applicants found to have violated the security of the examination or
40   examination process as specified in Section 1798.207 of the Health and Safety Code,
41   shall be subject to the penalties specified therein.
42
43   (b) Students enrolled in an accredited paramedic training program, or a paramedic
44   training program with a current Letter of Review on file with the NREMT, shall be eligible
45   to take the practical psychomotor skills examination specified in Section 100140 of this
46   chapter upon successful completion of didactic and skills laboratory., and Students shall

29

1   be eligible to take the <u>cognitive</u> written examination specified in Section 100141 when
2   they have successfully completed the didactic, clinical, and field training and have met
3   all the provisions of the approved paramedic training program.
4
5   Note: Authority cited: Sections 1797.7, 1797.107, 1797.172, 1797.174 and 1797.185,
6   Health and Safety Code. Reference: Sections 1797.7, 1797.172, 1797.185, 1797.214
7   and 1798.207, Health and Safety Code.
8
9   **§ 100164. Date and Filing of Applications.**
10 (a) The Authority shall notify the applicant within <u>forty-five (45) calendar</u> ~~thirty (30)~~ days
11 of receipt of the state application that the application was received and shall specify
12 what information, if any, is missing. The types of applications<u>,</u> which <u>the applicant</u> may
13 be required to ~~be~~ submitted <u>to the Authority,</u> ~~by the applicant~~ are as follows:
14
15 (1) <u>Initial In-State Paramedic License</u> Application, ~~for Initial License~~ (California
16 Graduate), Form #L-01, <u>revised 03/2019</u> ~~Revised (7/2011)~~ <u>herein incorporated by</u>
17 <u>reference, for California paramedic program graduates.</u>~~, herein incorporated by~~
18 ~~reference.~~
19
20 (2) ~~Application for~~ Initial ~~License of~~ Out-of-State <u>Paramedic License Application Form</u>
21 <u>#L-01A revised 03/2019, herein incorporated by reference, for Out-of-State applicants</u>
22 ~~Candidates~~ who are registered with the National Registry of Emergency Medical
23 Technicians <u>as a paramedic.</u> ~~, Form #L-01A, Revised 7/2011, herein incorporated by~~
24 ~~reference.~~
25
26 <u>(3) Initial Challenge Paramedic License Application, Form #CL-01A revised 03/2019,</u>
27 <u>herein incorporated by reference.</u>
28
29 ~~(3)~~ <u>(4)</u> ~~Application for License Renewal,~~ <u>Renewal Paramedic License</u> Form #RL-01,
30 <u>revised 03/2019,</u> ~~Revised 6/2011~~, herein incorporated by reference.
31
32 <u>(5) Audit Renewal Paramedic License Application, Form #AR-01, revised 03/2019,</u>
33 <u>herein incorporated by reference.</u>
34
35 <u>(6)</u> ~~(4)~~ ~~Application for Lapsed License~~ Reinstatement~~:~~ <u>Paramedic License</u>
36 <u>Applications(s):</u>
37
38 (A) <u>Reinstatement Paramedic License Application</u> Lapsed Less than One Year, Form
39 #RLL-01A, <u>revised 03/2019</u> ~~Revised 06/2012~~, herein incorporated by reference.
40
41 (B) <u>Reinstatement Paramedic License Application</u> Lapsed ~~of~~ One Year or More, Form
42 #RLL-01B, <u>revised 03/2019</u> ~~Revised 06/2012~~, herein incorporated by reference.
43
44 ~~(5) Application for Challenge, Form #C L-01A, revised 06/2012, herein incorporated by~~
45 ~~reference.~~
46

30

1 (7) Applicant fingerprint card, FD-258 dated 5/11/99 or a Request for Live Scan Service
2 Applicant Submission Form, BCII 8016 (Rev 06/0905/2018), submitted to the California
3 Department of Justice (DOJ), for a state and federal criminal history report summary
4 provided by the Department of Justice in accordance with the provisions of section
5 11105 et seq. of the Penal Code.
6
7 (8) Statement of Citizenship, Alienage, and Immigration Status for State Paramedic
8 License Application /Renewal Form IS-01 (8/11), herein incorporated by reference.
9
10 (8) Request for Licensure/Certification Verification, Form #VL-01, revised 03/2019.
11
12 (b) Applications for renewal of license shall be complete and postmarked, hand
13 delivered, or otherwise received by the Authority at least thirty (30) calendar days prior
14 to the expiration date of the current license. Applications postmarked, hand delivered or
15 otherwise received by the Authority less than thirty (30) calendar days prior to the
16 expiration date of the current license will not cause the license to lapse but will require
17 the applicant to pay a $50 late fee, as specified in Section 100172(b)(4) of this Chapter.
18
19 (c) Eligible out-of-state applicants as defined in section 100165(b) (a)(2) and eligible
20 applicants as defined in section 100165(c) (a)(3) of this Chapter who have applied to
21 challenge the paramedic licensure training requirements process shall be notified by the
22 Authority within forty-five (45) calendar working days of receiving the application.
23 Notification shall advise the applicant that the application has been received, and shall
24 specify what information, if any, is missing.
25
26 (d) An application shall be denied without prejudice when an applicant does not
27 complete the application, furnish additional information or documents requested by the
28 Authority or fails to pay any required fees. An applicant shall be deemed to have
29 abandoned an application if the applicant does not complete the requirements for
30 licensure within one (1) year from the date on which the application was filed. An
31 application submitted subsequent to an abandoned application shall be treated as a
32 new application.
33
34 (e) A complete state application is a signed application submitted to the Authority that
35 provides all the requested information and is accompanied by the appropriate
36 application fee(s). All statements submitted by or on behalf of an applicant shall be
37 made under penalty of perjury.
38
39 Note: Authority cited: Sections 1797.107 and 1797.172, Health and Safety Code.
40 Reference: Section 1797.172, Health and Safety Code.
41
42 **ARTICLE 5. LICENSURE**
43
44 **§ 100165. Licensure.**
45 (a) In order to be eligible for initial paramedic licensure an individual applicant shall
46 meet at least one of the following requirements:.

31

1
2　(1) ~~Have a~~ Provide documentation of a California paramedic training program course
3　completion record as specified in Section 100157 of this Chapter or other documented
4　proof of successful completion of ~~an~~ a California approved paramedic training program
5　~~within the last two years from the date of application to the Authority for paramedic~~
6　~~licensure.~~ and shall meet the following requirements:
7
8　~~(2)~~(A) Complete and submit the appropriate ~~state~~ Initial In-State Paramedic License
9　application form ~~forms~~ as specified in Section 100164.
10
11　~~(3)~~(B) Provide documentation of successful completion of the paramedic licensure
12　cognitive written and psychomotor ~~practical~~ skills examinations within the previous two
13　(2) years as specified in sections 100140~~,~~ and 100141, ~~and 100163~~, or possess a
14　current NREMT paramedic registration.
15
16　(C) Submit to the California DOJ, an applicant fingerprint card, FD-258 dated 5/11/99 or
17　a Request for Live Scan Service Applicant Submission Form, BCII 8016 (Revised
18　05/2018), for a state criminal history record provided by the DOJ in accordance with the
19　provisions of Section 11105 et seq. of the Penal Code.
20
21　~~(4)~~~~(E)~~(D) Pay the established fees pursuant to Section 100172.
22
23　~~(b)An individual who possesses a current paramedic registration issued by the NREMT~~
24　~~shall be eligible for licensure when that individual fulfills the requirements of subsection~~
25　~~(a)(2) and (4) of this section and successfully completes a field internship as defined in~~
26　~~Sections 100153 and 1001589(b)~~
27
28　~~(c)A physician, registered nurse or physician assistant currently licensed shall be~~
29　~~eligible for paramedic licensure upon:~~
30
31　~~(1) providing documentation that their training is equivalent to the DOT HS 811 077A~~
32　~~specified in Section 100160;~~
33
34　~~(2) successfully completing a field internship as defined in Sections 100153(a) and~~
35　~~100159(b); and,~~
36
37　~~(3) fulfilling the requirements of subsection (a)(2) through (a)(4) of this section.~~
38
39　(2) Provide documentation of a paramedic license or a paramedic training program
40　course completion issued from an approved training program outside the State of
41　California and meet the following requirements:
42
43　(A) Complete and submit the Initial Out-of-State Paramedic License application form as
44　specified in Section 100164.
45

32

1   (B) Provide documentation of a current paramedic NREMT registration or proof of
2   passing the paramedic licensure cognitive written and psychomotor skills exams within
3   the last two (2) years.
4
5   (C) Provide documentation of successful completion of an approved paramedic field
6   internship, provided by an approved paramedic program director, consisting of no less
7   than 40 advanced life support patient contacts as defined in Section 100153(a), or a
8   letter on official letterhead by an applicant's employer, training program director, or
9   medical director verifying applicant's successful completion of 40 ALS patient contacts.
10
11 (D) An individual who is currently or was previously paramedic certified/licensed out-of-
12 state shall submit a completed Request for License/Certification Verification, Form # VL-
13 01 03/2019.
14
15 (E) Submit to the California DOJ, an applicant fingerprint card, FD-258 dated 5/11/99 or
16 a Request for Live Scan Service Applicant Submission Form, BCII 8016 (Revised
17 05/2018), for a state criminal history record provided by the DOJ in accordance with the
18 provisions of Section 11105 et seq. of the Penal Code
19
20 (F) Pay the established fees pursuant to Section 100172.
21
22 (3) A physician, authorized registered nurse, mobile intensive care nurse (MICN), or
23 physician assistant currently licensed shall be eligible to challenge the required
24 paramedic training for initial paramedic licensure upon meeting the following
25 requirements:
26
27 (A) If licensed as a physician, authorized registered nurse, MICN or physician assistant
28 outside the state of California, provide documentation that their training is equivalent to
29 the DOT HS 811 077 E specified in Section 100155,
30
31 (B) If licensed as a physician, authorized registered nurse, MICN or physician assistant
32 in the state of California, provide a copy of their current license, or
33
34 (C) Complete and submit the Initial Challenge Paramedic License application form as
35 specified in Section 100164.
36
37 (D) Provide documentation of successful completion of no less than 40 advanced life
38 support patient contacts during an approved paramedic training program field
39 internship, as specified in Section 100153(a), or a letter on official letterhead by a
40 paramedic employer, training program director, or medical director verifying applicant's
41 successful completion of 40 ALS patient contacts in an approved paramedic service
42 provider field environment.
43
44 (E) Pay the established fees pursuant to Section 100172.
45

33

1   (F) Submit a completed Request for Licensure/Certification Verification Form # VL-01
2   03/2019, if applicable.
3
4   (G) Provide documentation of a current paramedic NREMT registration or proof of
5   passing the paramedic licensure cognitive written and psychomotor skills exams within
6   the last two (2) years.
7
8   1. If a letter of support is required by the NREMT to take the paramedic licensure
9   cognitive written or psychomotor skills exams, the applicant shall notify the Authority.
10 The Authority shall review an applicant's completed and signed application for eligibility
11 to provide a letter of support to NREMT.
12
13 (H) Submit to the California DOJ, an applicant fingerprint card, FD-258 dated 5/11/99 or
14 a Request for Live Scan Service Applicant Submission Form, BCII 8016 (Revised
15 05/2018), for a state criminal history record provided by the DOJ in accordance with the
16 provisions of Section 11105 et seq. of the Penal Code
17
18 (b) If a letter of support is required by the NREMT to take the paramedic licensure
19 cognitive written or psychomotor skills exams, the applicant shall be required to submit
20 the appropriate application as identified in section 100165(a) and at least one of the
21 following to the Authority:
22
23 (1) Documentation showing the applicant is currently licensed as an out-of-state
24 paramedic.
25
26 (2) Documentation showing proof of completion of a state, or country, approved or
27 CAAHEP accredited paramedic training program within the past two (2) years.
28
29 (3) Documentation showing applicants training program course content is equivalent or
30 surpasses the content and hours of the January 2009 United States Department of
31 Transportation (U.S. DOT) National Emergency Medical Services Education Standards
32 DOT HS 811 077E."
33
34 (d)(c) All documentation submitted in a language other than English shall be
35 accompanied by a translation into English certified by a translator who is in the business
36 of providing certified translations and who shall attest to the accuracy of such translation
37 under penalty of perjury.
38
39 (e)(d) The Authority shall issue within forty-five (45) calendar days of receipt of a
40 completed application as specified in Section 100164(e) a wallet-sized license to eligible
41 individuals who apply for a license and successfully complete the licensure
42 requirements.
43
44 (f)(e) The initial paramedic licenses' effective date of the initial license shall be the day
45 the license is issued. The license shall be valid for a period of two (2) years; beginning

34

1 on the effective date through ~~from~~ the last day of the approval month in the second
2 year. ~~which it was issued.~~
3
4 ~~(g)~~(f) The paramedic shall be responsible for notifying the Authority of her/his proper
5 and current mailing address and shall notify the Authority in writing within thirty (30)
6 calendar days of any and all changes of the mailing address, giving both the old and the
7 new address, and paramedic license number.
8
9 ~~(h)~~(g) A paramedic may request a duplicate license if the individual submits a request in
10 writing certifying to the loss or destruction of the original license, or the individual has
11 changed his/her name. If the request for a duplicate card is due to a name change, the
12 request shall also include documentation of the name change. The duplicate license
13 shall bear the same number and date of expiration as the replaced license.
14
15 ~~(i)~~(h) An individual currently licensed as a paramedic by the provision of this section ~~is~~
16 ~~deemed to be certified~~ may function as an EMT and/or an AEMT, except when the
17 paramedic license is under suspension, with no further testing or certification process
18 required. ~~If certificates are issued, the expiration date of the EMT or AEMT certification~~
19 ~~shall be the same expiration date as the paramedic license, unless the individual~~ If a
20 separate EMT or AEMT certificate is sought the certifying entity shall follow~~s~~ the EMT,
21 or AEMT certification/recertification ~~process~~ provisions as specified in Chapters 2 and 3
22 of this Division.
23
24 ~~(j)~~(i) An individual currently licensed as a paramedic by the provisions of this section
25 may voluntarily deactivate his/her paramedic license if the individual is not under
26 investigation or disciplinary action by the Authority for violations of Health and Safety
27 Code Section 1798.200. If a paramedic license is voluntarily deactivated, the individual
28 shall not engage in any practice for which a paramedic license is required, shall return
29 his/her paramedic license to the Authority, and shall notify any LEMSA with which
30 he/she is accredited as a paramedic or with which he/she is certified as an EMT or
31 AEMT that the paramedic license is no longer valid. Reactivation of the paramedic
32 license shall be done in accordance with the provisions of Section 100167(b) of this
33 Chapter.
34
35 Note: Authority cited: Sections 1797.107, 1797.172, 1797.175, 1797.185, 1797.194,
36 1798.200 and 1798.202, Health and Safety Code. Reference: Sections 1797.56,
37 1797.63, 1797.172, 1797.175, 1797.177, 1797.185, 1797.194 and 1798.200, Health
38 and Safety Code; and Section 15376, Government Code.
39
40 **ARTICLE 6. LICENSE RENEWALS, LICENSE AUDIT RENEWALS and LICENSE**
41 **REINSTATEMENTS.**
42
43 **§ 100167. License Renewal, License Audit Renewal, and License Reinstatement**
44 (a) In order to be eligible for renewal of a non-lapsed paramedic license, an individual
45 shall comply with the following requirements:
46

1   (1) Possess a current paramedic license issued in California.

2

3   (2) Complete forty-eight (48) hours of CE pursuant to the provisions of Chapter 11 of
4   this Division.

5

6   (3) Complete and submit the ~~state~~ Renewal Paramedic License Application ~~for License~~
7   ~~Renewal~~, Form #RL-01, revised 03/2019. ~~Revised 07/2011 including the Statement of~~
8   ~~Continuing Education located on the back of the license renewal application. EMSA will~~
9   ~~notify the paramedic, by mail, approximately six (6) months prior to their paramedic~~
10 ~~license expiration date on how to renew their license.~~

11

12 (4) If applicant is selected for audit, submit to the Authority a signed and completed
13 Audit Renewal Paramedic License Application, Form #AR-01, revised 03/2019.

14

15 (A) Applicants selected for audit shall submit documentation of forty-eight (48) hours of
16 CE completion, as specified in (a)(2) of this section.

17

18 ~~(4)~~(5) Pay the appropriate fees as specified on the application in accordance with
19 Section 100172 of this Chapter.

20

21 (6) EMSA will send a renewal reminder notification by mail to the paramedic,
22 approximately five (5) months prior to their paramedic license expiration date.

23

24 (b) In order for an individual whose license has lapsed to be eligible for license ~~renewal~~
25 reinstatement, the following requirements shall apply:

26

27 (1) For a license lapsed ~~of~~ less than six (6) months, the individual shall submit: ~~comply~~
28 ~~with (a)(2), and (a)(4) of this section~~ and complete and submit the state Paramedic
29 ~~Application specified in Section100163(a)(4), including the Statement of Continuing~~
30 ~~Education located on the back of the lapsed license renewal application.~~

31

32 (A) Forty-eight (48) hours of CE pursuant to the provisions of Chapter 11 of this Division
33 with copies of the CE Certificates.

34

35 (B) Pay the appropriate fees as specified on the application in accordance with Section
36 100172 of this Chapter.

37

38 (C) Submit a signed and completed Reinstatement Paramedic License Application,
39 Lapsed Less than 1 year, specified in Section 100164(a)(6)(A),

40

41   (D) If an applicant is or was certified/licensed in another state or country, a signed and
42 completed Licensure/Certification Verification, Form #VL-01, 03/2019, shall be
43 submitted to the Authority for each state or country the applicant was licensed/certified.

44

45 (2) For a license lapsed ~~of~~ six (6) months or more, but less than twelve (12) months, the
46 individual shall: ~~comply with (a)(2), and (a)(4) of this section, complete an additional~~

36

1   twelve (12) hours of CE, for a total of sixty (60) hours of CE,and complete and submit
2   the state Paramedic Application specified in Section 100163(a)(4), including the
3   Statement of Continuing Education located on the back of the lapsed license renewal
4   application.
5
6   (A) Submit sixty (60) hours of CE pursuant to the provisions of Chapter 11 of this
7   Division, with copies of the CE Certificates.
8
9   (B) Pay the appropriate fees as specified on the application in accordance with Section
10 100172 of this Chapter.
11
12 (C) Submit a signed and completed Reinstatement Paramedic License Application,
13 Lapsed less than 1 year, as specified in Section 100164(a)(6)(A).
14
15 (D) If an applicant is or was certified/licensed in another state or country, a signed and
16 completed Licensure/Certification Verification, Form #VL-01, 03/2019, shall be
17 submitted to the Authority for each state or country the applicant was licensed/certified.
18
19 (3) For a license lapsed of twelve (12) months or more, but less than twenty-four (24)
20 months, the individual shall: pass the licensure examination specified in Sections
21 100140, 100141, and 100164 or possess a current paramedic registration issued by the
22 NREMT, comply with (a)(2) and (a)(4) of this section, submit to the California DOJ an
23 applicant fingerprint card, FD-258 dated 5/11/99 or a Request for Live Scan Service
24 Applicant Submission Form, BCII 8016 (Rev 03/07), for a state summary criminal
25 history provided by the DOJ in accordance with the provisions of Section 11105 et seq.
26 of the Penal Code, complete an additional twenty-four (24) hours of CE, for a total of
27 seventy-two (72) hours of CE and complete and submit a state Paramedic Application
28 specified in Section 100163(a)(4), including the Statement of Continuing Education
29 located on the back of the lapsed license renewal application.
30
31 (A) Provide documentation of passing the licensure examinations within the past two (2)
32 years as specified in Sections 100140 and 100141 or provide documentation of a
33 current paramedic registration issued by the NREMT,
34
35 (B) Submit seventy-two (72) hours of CE pursuant to the provisions of Chapter 11 of this
36 Division, with copies of the CE Certificates.
37
38 (C) Pay the appropriate fees as specified on the application in accordance with Section
39 100172 of this Chapter,
40
41 (D) Submit to the California DOJ, an applicant fingerprint card, FD-258 dated 5/11/99 or
42 a Request for Live Scan Service Applicant Submission Form, BCII 8016 (Revised
43 05/2018), for a state criminal history record provided by the DOJ in accordance with the
44 provisions of Section 11105 et seq. of the Penal Code
45

37

1 (E) Submit a signed and completed Reinstatement Paramedic License Application,
2 Lapsed 1 year or more, specified in Section 100164(a)(6)(B),
3
4 (F) If an applicant is or was certified/licensed in another state or country, a signed and
5 completed Licensure/Certification Verification, Form #VL-01, 03/2019, shall be
6 submitted to the Authority for each state or country the applicant was licensed/certified.
7
8 (4) For a lapse of twenty-four (24) months or more, the individual shall: comply with
9 (a)(2) and (a)(4) and (b)(3) of this section. Documentation of the seventy-two (72) hours
10 of CE shall include completion of the following courses, or their equivalent:
11
12 (A) Provide documentation of passing the licensure examinations within the past two (2)
13 years as specified in Sections 100140 and 100141 or provide documentation of a
14 current paramedic registration issued by the NREMT.
15
16 (B) Pay the appropriate fees as specified on the application in accordance with Section
17 100172 of this Chapter.
18
19 (C) Submit to the California DOJ an applicant fingerprint card, FD-258 dated 5/11/99 or
20 a Request for Live Scan Service Applicant Submission Form, BCII 8016 (Rev 05/2018),
21 for a state criminal history record provided by the DOJ in accordance with the provisions
22 of Section 11105 et seq. of the Penal Code.
23
24 (D) Submit a signed and completed Reinstatement Paramedic License Application,
25 lapsed 1 year or More, specified in Section 100164(a)(6)(B).
26
27 (E) Documentation of seventy-two (72) hours of CE that shall include completion of the
28 following courses, or their equivalent:
29
30 (1) Advanced Cardiac Life Support,
31
32 (2) Pediatric Advanced Life Support,
33
34 (3) Prehospital Trauma Life Support or International Trauma Life Support,
35
36 (4) CPR.
37
38 (F) If an applicant is or was certified/licensed in another state or country, a signed and
39 completed Licensure/Certification Verification, Form #VL-01, 03/2019, shall be
40 submitted to the Authority for each state or country the applicant was licensed/certified.
41
42 (c) Renewal of a license shall be for two (2) years. If the renewal requirements are met
43 within six (6) months prior to the expiration date of the current license, the effective date
44 of licensure shall be the first day after the expiration of the current license. This applies
45 only to individuals who have not had a lapse in licensure.
46

38

1 (d) ~~For individuals whose~~ Reinstated license~~s~~ ~~has lapsed, the licensure cycle~~ shall be
2 valid for a period of two (2) years; beginning on the date of issuance through the last
3 day of the approved month in the second year. ~~from the last day of the month in which~~
4 ~~all licensure requirements are completed and the license was issued.~~
5
6 (e) ~~The Authority shall notify the applicant for license renewal within thirty (30)~~ Within
7 forty-five (45) calendar ~~working~~ days of receiving the application, the Authority shall
8 notify the applicant that the application has been ~~received~~ approved or ~~and shall~~ specify
9 what information, if any, is missing.
10
11 (f) An individual, who is a member of the ~~reserves and is deployed for active duty with a~~
12 ~~branch of the~~ Armed Forces of the United States, whose paramedic license expires
13 during the time the individual is on active duty or license expires less than six (6)
14 months from the date the individual is deactivated/released from active duty, has an
15 additional six (6) months to comply with the following CE requirements and the late
16 renewal fee is waived upon compliance with the following provisions:
17
18 (1) Provide documentation from the respective branch of the Armed Forces of the
19 United States verifying the individual's dates of activation and deactivation/release from
20 active duty.
21
22 (2) Meet the requirements of Section 100167(a)(2) through (a)(4) of this Chapter, except
23 the individual will not be subject to the $50 late renewal application fee specified in
24 Section 100172(b)(4).
25
26 (3) Provide documentation showing ~~that~~ the CE~~s~~ ~~activities~~ ~~submitted for the license~~
27 ~~renewal period~~ were received no sooner ~~taken not earlier~~ than 30 days prior to the
28 effective date of the individual's paramedic license that was valid when the individual
29 was activated for active duty and not later than six months from the date of
30 deactivation/release from active duty.
31
32 (A) ~~For an individual~~ Individuals whose active duty required ~~him/her~~ them to use ~~his/her~~
33 their paramedic skills, credit may be given for documented training that meets the
34 requirements of Chapter 11, EMS Continuing Education Regulations (California Code of
35 Regulations, Title 22, Division 9). The documentation shall include verification from the
36 individual's Commanding Officer attesting to the classes attended.
37
38 Note: Authority cited: Sections 1797.107, 1797.172, 1797.175, 1797.185 and 1797.194,
39 Health and Safety Code. Reference: Sections 1797.63, 1797.172, 1797.175, 1797.185,
40 1797.194 and 1797.210, Health and Safety Code; and Section 101, Chapter 1, Part 1,
41 Subtitle A, Title 10, United States Code.
42
43 **ARTICLE 7. SYSTEM REQUIREMENTS**
44
45 **§ 100170. Medical Control.**
46 The medical director of the LEMSA shall establish and maintain medical control in the

1 following manner:

3 (a) Prospectively, by assuring the development of written medical policies and
4 procedures, to include at a minimum:

6 (1) Treatment protocols that encompass the paramedic scope of practice.

8 (2) Local medical control policies and procedures as they pertain to the paramedic base
9 hospitals, alternative base stations, paramedic service providers, paramedic personnel,
10 patient destination, and the LEMSA.

12 (3) Criteria for initiating specified emergency treatments on standing orders or for use in
13 the event of communication failure that is consistent with this Chapter.

15 (4) Criteria for initiating specified emergency treatments, prior to voice contact, that are
16 consistent with this Chapter.

18 (5) Requirements to be followed when it is determined that the patient will not require
19 transport to the hospital by ambulance, is treated ~~in place~~on scene without transport, or
20 when the patient refuses care or transport.

22 (6) Requirements for the initiation, completion, review, evaluation, and retention of an
23 electronic health record (EHR) ~~patient care record~~ as specified in this Chapter. These
24 requirements shall address but not be limited to:

26 (A) Initiation of ~~a~~ an electronic health record for every patient response.

28 (B) Responsibilities for record completion.

30 (C) Record distribution to include LEMSA, receiving hospital, paramedic base hospital,
31 alternative base station, and paramedic service provider.

33 (D) Responsibilities for record review and evaluation.

35 (E) Responsibilities for record retention.

37 ~~(7) Requirements to be followed for prehospital triage of patients who are~~
38 ~~assessed and determined to have a non-emergency condition. These~~
39 ~~requirements may include procedures for patients that are frequent users of the~~
40 ~~EMS system that require referral,; or for patients that require transport to an~~
41 ~~alternativealternate destination, other than a Hhospital with a Bbasic emergency~~
42 ~~permit, for further treatment, or for patients who require assessment in an~~
43 ~~emergency situation. These requirements include but shall not be limited to:~~

45 ~~(A) Policies, procedures, and protocols for medical control and quality of care.~~

40

1 *(B) Use of advanced life support skills, advanced screening tools and point-of-*
2 *care testing to evaluate severity of patient severitymedical condition.*
3
4 *(C) Documentation of assessment and evaluation in an electronic health record*
5 *for each patient evaluated.*
6
7 *(D) Completion of additional training and competency testing based upon*
8 *standardized curriculum approved by the authority.*
9
10 *(E) Authorization of EMS personnel by the local EMS agency medical director.*
11
12 *(F) Designation of alternativealternate receiving facilities, with medical staffing to*
13 *consist of at least one registered nurse, that includes:*
14
15 *1. Hospitals with a standby emergency department permit or a hospital operated*
16 *by the Veterans Administration, or*
17
18 *2. LEMSA-designatedAuthorized authorized mMental health facilities as defined*
19 *inapproved pursuant to Subdivision (n) of Section 50085404 of the Welfare and*
20 *Institutions Code, or*
21
22 *a. Licensed 24-hour health care facilities, hospital based outpatient programs, or*
23 *provider sites certified by a county Mental Health Plan or by the Department of*
24 *Health Care Services to provide Medi-Cal crisis stabilization services consistent*
25 *with and pursuant to sections, 1810.210, 1810.435, 1840.338, 1840.348 under*
26 *Chapter 11, Title 9 of the California Code of Regulations.*
27
28 *3. Authorized sSobering centers that are either a federally qualified health center*
29 *or a clinic as described in Sections 12111204 and 1206 of the Health and Safety*
30 *Code.*
31
32 *(G) Secure, bi-directional exchange of electronic patient health care information*
33 *between treating providers by no later than January 1, 2023.*
34
35 *(H) Retrospective review of records and quality measures by the receiving facility*
36 *as determined by the LEMSA.*
37
38 (b) Establish policies which provide for direct voice communication between a
39 paramedic and a base hospital physician, authorized registered nurse, or MICN, as
40 needed.
41
42 (c) Retrospectively, by providing for organized evaluation and CE for paramedic
43 personnel. This shall include, but not be limited to:
44

41

1   (1) Review by a base hospital physician, authorized registered nurse, or MICN of the
2   appropriateness and adequacy of paramedic procedures initiated and decisions
3   regarding transport.
4
5   (2) Maintenance of records of communications between the service provider(s) and the
6   base hospital through tape recordings and through emergency department
7   communication logs sufficient to allow for medical control and CE of the paramedic.
8
9   (3) Organized field care audit(s).
10
11   (4) Organized opportunities for CE including maintenance and proficiency of skills as
12   specified in this Chapter.
13
14   (5) Ensuring the EMSQIP methods of evaluation are composed of structure, process,
15   and outcome evaluations which focus on improvement efforts to identify root causes of
16   problems, intervene to reduce or eliminate these causes, and take steps to correct the
17   process and recognize excellence in performance and delivery of care, pursuant to the
18   provisions of Chapter 12 of this Division.
19
20   (d) In circumstances where use of a base hospital as defined in Section 100169 is
21   precluded, alternative arrangements for complying with the requirements of this Section
22   may be instituted by the medical director of the LEMSA if approved by the Authority.
23
24   Note: Authority cited: Sections 1797.106, 1797.107, 1797.172 and 1797.176, Health
25   and Safety Code. Reference: Sections 1204, 1206, 1797.56, 1797.90, 1797.114,
26   1797.172, 1797.202, 1797.220, 1797.227, 1798, 1798.2, 1798.3, 1798.101 and
27   1798.105, Health and Safety Code; and Section 5404 of the Welfare and Institutions
28   Code.
29
30   **ARTICLE 8. RECORD KEEPING AND FEES**
31
32   **§ 100171. Record Keeping.**
33   (a) Each paramedic approving authority shall maintain a record of approved training
34   programs within its jurisdiction and annually provide the Authority with the name,
35   address, and *course* **program** director of each approved program. The Authority shall
36   be notified
37   of any changes in the list of approved training programs.
38
39   (b) Each paramedic approving authority shall maintain a list of current paramedic
40   program medical directors, *course* **program** directors, and principal instructors within
41   its
42   jurisdiction.
43
44   (c) The Authority shall maintain a record of approved training programs.
45
46   (d) Each LEMSA shall, at a minimum, maintain a list of all paramedics accredited by

42

1 them in the preceding five (5) years.

2

3 (e) The paramedic is responsible for accurately completing, in a timely manner, the
4 electronic health record patient care record referenced in Section 100170(a)(6)
5 compliant with the current versions of the National EMS Information System and the
6 California EMS Information System, which shall contain, but not be limited to, the
7 following information when such information is available to the paramedic:

8

9 (1) The date and estimated time of incident.
10 (2) The time of receipt of the call (available through dispatch records).
11 (3) The time of dispatch to the scene.
12 (4) The time of arrival at the scene.
13 (5) The location of the incident.
14 (6) The patient's:
15 (A) Name;
16 (B) Age or date of birth;
17 (C) Gender;
18 (D) Weight, if necessary for treatment;
19 (E) Address;
20 (F) Chief complaintPrimary Provider ImpressionChief complaint; and
21 (G) Vital signs.

22

23 (7) Appropriate physical assessment.
24 (8) Primary Provider Impression.
25 (8)(9) The emergency care rendered and the patient's response to such treatment.
26 (9)(10) Patient disposition.
27 (10)(11) The time of departure from scene.
28 (11)(12) The time of arrival at receiving facility (if transported).
29 (12)(13) Time patient care was transferred to receiving facility.
30 (123)(14) The name of receiving facility (if transported).
31 (134)(15) The name(s) and unique identifier number(s) of the paramedics.
32 (145)(16) Signature(s) of the paramedic(s).

33

34 (f) A LEMSA utilizing computer or other electronic means of collecting and storing the
35 information specified in subsection (e) of this section shall in consultation with EMS
36 providers establish policies for the collection, utilization, and storage and secure
37 transmission of interoperable electronic health records. of such data.

38

39 (g) The paramedic service provider shall submit electronic health records to the LEMSA
40 according to the LEMSA's policies and procedures.

41

42 (h) The LEMSA shall submit the electronic health record data to the Authority in no
43 greater than quarterly intervalswithin seventy-two (72) hours after completion of the
44 patient encounter, or at longer intervals if established by written agreement between the
45 LEMSA and the Authority.

46

43

1 Note: Authority cited: Sections 1797.107, 1797.172 and 1797.185, Health and Safety
2 Code. Reference: Sections 1797.172, 1797.173, 1797.185, 1797.200, <u>1797.227,</u>
3 1797.204 and 1797.208, Health and Safety Code.
4
5 **§ 100172. Fees.**
6 (a) A LEMSA may establish a schedule of fees for paramedic training program review
7 and approval, CE provider approval, and paramedic accreditation in an amount
8 sufficient to cover the reasonable cost of complying with the provisions of this Chapter.
9
10 (b) The following are the <u>nonrefundable</u> licensing fees established by the Authority:
11
12 (1) The ~~fee for initial~~ <u>Initial In-State Paramedic License</u> application <u>fee shall be two</u>
13 <u>hundred fifty ($250) dollars.</u> ~~for paramedic licensure for individuals who have completed~~
14 ~~training in California through an approved paramedic training program shall be $50.00.~~
15
16 <u>(A) Effective July 1, 2020 through June 30, 2021, the Initial In-State Paramedic License</u>
17 <u>application fee shall be two hundred seventy-five ($275) dollars.</u>
18
19 <u>(B) Effective July 1, 202~~2~~1 and thereafter the Initial In-State Paramedic License</u>
20 <u>application fee shall be three hundred ($300) dollars.</u>
21
22 (2) The ~~fee for initial~~ <u>the Initial Out-of-State Paramedic License</u> application <u>fee shall be</u>
23 <u>three hundred ($300) dollars.</u> ~~For paramedic licensure for individuals who have~~
24 ~~completed out-of-state paramedic training, as specified in Section 100165(b), or for~~
25 ~~individuals specified in Section 100165(c), shall be $100.00.~~
26
27 <u>(A) Effective July 1, 2020 through June 30, 2021, the Initial Out-of-State Paramedic</u>
28 <u>License application fee shall be three hundred twenty-five ($325) dollars.</u>
29
30 <u>(B) Effective July 1, 202~~2~~1 and thereafter the Initial Out-of-State Paramedic License</u>
31 <u>application fee shall be three hundred fifty ($350) dollars.</u>
32
33 (3) The ~~fee for licensure or licensure renewal as a paramedic~~ <u>the Renewal Paramedic</u>
34 <u>License application fee received at least thirty (30) days prior to expiration of the current</u>
35 <u>license, as specified in 100164(b) of this Chapter,</u> shall be <u>two hundred dollars ($200)</u>
36 ~~$195.00.~~
37
38 <u>(A) Effective July 1, 2020 through June 30, 2021, the Renewal Paramedic License</u>
39 <u>application fee received at least thirty (30) days prior to expiration of the current license,</u>
40 <u>as specified in 100164(b) of this Chapter, shall be two hundred twenty-five ($225)</u>
41 <u>dollars.</u>
42
43 <u>(B) Effective July 1, 202~~2~~1 and thereafter the Renewal Paramedic License application</u>
44 <u>fee received at least thirty (30) days prior to expiration of the current license, as</u>
45 <u>specified in 100164(b) of this Chapter, shall be two hundred fifty ($250) dollars.</u>
46

44

1　(4) The fee for failing to submit ~~an~~ a complete application for renewal, as specified in
2　Section 100164(e), within the timeframe specified in Section 100164(b) ~~or for an~~
3　~~individual whose license has lapsed, as specified in Section 100167(b)(1), (2), (3) and~~
4　~~(4)~~ shall be a late fee in the amount of fifty dollars ($50.00).
5
6　(5) The fee for state ~~summary~~ and criminal history records shall be in accordance with
7　the schedule of fees established by the California DOJ~~.~~ and the Federal Bureau of
8　Investigations.
9
10　(6) The fee for a duplicate or replacement of a license shall be ten dollars ($10~~.00~~).
11
12　(7) The fee for approval and re-approval of ~~an out-of-state~~ a CE provider shall be two
13　thousand five hundred ($2,500) dollars. ~~$200.00.~~
14
15　(8) The fee for administration of the provisions of Section 17520 of the Family Code
16　shall be five dollars ($5~~.00~~); which is incorporated into the fees specified commencing
17　with Section 100172(b)(1).
18
19　(9) The Reinstatement Paramedic License Application fee shall be two hundred fifty
20　dollars ($250).
21
22　(A) Effective July 1, 2020 through June 30, 2021, the Reinstatement Paramedic License
23　Application fee shall be two hundred seventy-five ($275) dollars.
24
25　(B) Effective July 1, 202~~2~~1 and thereafter the Reinstatement Paramedic License
26　Application fee shall be three hundred ($300) dollars.
27
28　(10) The Initial Challenge Paramedic License Application fee shall be three hundred
29　dollars ($300).
30
31　(A) Effective July 1, 2020 through June 30, 2021, the Initial Challenge Paramedic
32　License Application fee shall be three hundred twenty-five ($325) dollars.
33
34　(B) Effective July 1, 202~~2~~1 and thereafter the Initial Challenge Paramedic License
35　Application fee shall be three hundred fifty ($350) dollars.
36
37　(11) The fee for dishonored checks shall be twenty-five dollars ($25).
38
39　Note: Authority cited: Sections 1797.107, 1797.112, 1797.172, 1797.185 and 1797.212,
40　Health and Safety Code. Reference: Sections 1797.172, 1797.185 and 1797.212,
41　Health and Safety Code; and Section 11105, Penal Code; and Section 1719, Civil
42　Code.
43

California
HOSPITAL
ASSOCIATION

Providing Leadership in
Health Policy and Advocacy

September 24, 2019

Esam El-Morshedy   By email to:
Emergency Medical Services Authority   Esam.el-morshedy@emsa.ca.gov
Attn: Paramedic Regulations
10901 Gold Center Drive, Suite 400
Rancho Cordova, CA 95670-6073

RE: **Fourth 15-day Public Comment on Proposed Revisions to Chapter 4 Emergency Medical**
        Services for Paramedics

Dear Mr. El-Morshedy:

California's hospital emergency departments (EDs) are committed to providing the right care, at the
right time, at the right place, for all our patients. An important component of providing that care is the
state's use of alternate destinations for patients who would be more appropriately served in a setting
other than hospital EDs. In furtherance of those efforts, the California Hospital Association (CHA) — on
behalf of our more than 400 member hospitals and health systems —respectfully offers the following
comments for consideration on the Emergency Medical Services Authority's (EMSA) proposed
regulations regarding standards, policies, and procedures for paramedic training, scope of practice,
licensure, and discipline.

We understand that EMSA has removed the alternate destination language from the proposed text to
give the new EMSA Director the opportunity to work with stakeholders and collaborate on a path
forward. We want to assure EMSA of our commitment and dedication to all forms of community
paramedicine, and most importantly, alternate destinations. Alternate destination protocols are
necessary because, as you know, ED overcrowding continues at a disturbing pace — hospital emergency
departments across the state report more than 16 million visits annually. EMSA, local emergency
medical services agencies (LEMSAs) and CHA all recognize the detrimental effect that emergency
department overcrowding is having on the delivery of care, despite increased capacity and system-wide
performance improvement measures. California hospital EDs do not have the non-emergent specialty
care resources to properly care for behavioral health patients who require the services of psychiatric
facilities. California hospital EDs also do not have the capacity to care for non-emergent patients such as
those requiring only sobering services. Pilot projects operated under the auspices of the California
Office of Statewide Health Planning and Development have demonstrated that these patients can be
successfully treated in alternate destination sites. It is imperative that the definitions/criteria adopted
for participating sobering centers and mental health facilities protect quality and patient safety, and are
broad enough to ensure access to the wide variety of facilities able to provide safe care.

CHA offers four specific comments, as specified in the attached comment grid and discussed below.

   1) **Article 3. Program Requirements For Paramedic Training Programs, §100149, page 11, line 39**.
      The text of (j)(3)(C) should be revised from "are accredited by a Centers for Medicare &
      Medicaid Services with deeming authority" to "are certified by the Centers for Medicare &

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Medicaid Services." This is just a technical correction. There are two ways a hospital may be certified to participate in the Medicare and Medicaid (Medi-Cal) programs: either by being certified directly by the Centers for Medicare & Medicaid Services (CMS), or by being accredited by an organization that has been granted deeming authority by CMS. The EMSA regulations should be clear that either method of being certified by CMS is acceptable.

2) **Article 7. System Requirements, §100170, page 40, line 8.** We propose adding language to this provision to support hospitals that are concerned with the growing responsibilities of base station oversight stemming from newly added pilot alternate destination sites, and those that may be added in the future. These responsibilities include additional quality assurance activities, data collection, and educational requirements. We therefore request that there be collaborative decision making when developing additional alternate destination base station policies and procedures between the LEMSA and the GACH base station providers. Our proposed language is specified in the attached comment grid.

3) **Article 7. System Requirements, §100170, page 40 line 45.** As stated in paragraph 2 above, CHA and its members request that the regulations ensure collaboration on base station alternate destination policy and procedures. We therefore offer the language specified in the attached comment grid.

4) **Article 7. System Requirements, §100170, page 41, line 28**. CHA requests that the sobering center definition be revised in any future rulemaking to include the 13 sobering center facilities currently operating across the state. CHA has worked closely with the newly-formed National Sobering Center Collaborative (NSCC) to develop criteria to ensure access to and the quality of these centers. While the state's longest-running sobering center in San Francisco is a federally qualified health center (FQHC), other highly effective centers are operating across the state without FQHC status. CHA's proposed definition assures that non-FQHC sobering centers meet safety and quality measures, including those centers that are participating in the Office of Statewide Health Planning and Development Workforce Pilot Project #17 and others that are willing to pursue upcoming accreditation standards to be developed by the NSCC. Our proposed language is specified in the attached comment grid.

As EMSA is aware, alternate destination policies will both alleviate hospital ED overcrowding and reduce EMS ambulance patient offload times. CHA stands ready and willing to work with EMSA and LEMSAs and other stakeholders to innovate and accelerate improved EMS care that puts patients first. We are committed to delivering the right care, at the right time, by the right provider, the first time we interact with a patient.

Sincerely,

BJ Bartleson, RN, MS, NEA-BC
VP Nursing and Clinical Services
(916) 552-7537
bjbartleson@calhospital.org

California Community Paramedicine Pilot Project Contact Information

Project #	Pilot Test Concept	EMS Providers	Local EMSA Contact	Principal Investigator	Pilot Project Manager
CP005	Directly Observed TB Treatment	AMR Ventura	Angelo Salvucci, MD Ventura Emergency Medical Services 2220 E. Gonzales Road, Suite 130 Oxnard, CA 93036-0619 Office 805-981-5301 asalvucci@silcom.com	Angelo Salvucci, MD Ventura Emergency Medical Services 2220 E. Gonzales Road, Suite 130 Oxnard, CA 93036-0619 Office 805-981-5301 asalvucci@silcom.com	Michael Taigman, General Manager American Medical Response Ventura 616 Fitch Avenue Moorpark, CA 93021 Office 510-593-5730 mtaigman@firstwatch.net
CP006	Hospice Support	AMR Ventura	Angelo Salvucci, MD Medical Director Ventura Emergency Medical Services 2220 E. Gonzales Road, Suite 130 Oxnard, CA 93036-0619 Office 805-981-5301 asalvucci@silcom.com	Angelo Salvucci, MD Medical Director Ventura Emergency Medical Services 2220 E. Gonzales Road, Suite 130 Oxnard, CA 93036-0619 Office 805-981-5301 asalvucci@silcom.com	Michael Taigman, General Manager American Medical Response Ventura 616 Fitch Avenue Moorpark, CA 93021 Office 510-593-5730 mtaigman@firstwatch.net
CP007	Post Discharge Follow Up Frequent 911 Callers	Alameda City Fire Department & Hayward Fire Department	Travis Kusman, Director Alameda County EMS Agency 1000 San Leandro Blvd, Suite 200 San Leandro, CA 94557 Office 510-618-2050 travis.kusman@acgov.org	Karl Sporer, MD Medical Director Alameda County EMS Agency 1000 San Leandro Blvd, Suite 200 San Leandro, CA 94557 Office 510-618-2003 Karl.sporer@acgov.org	Elsie Kusel Alameda County EMS Agency 1000 San Leandro Blvd, Suite 200 San Leandro, CA 94557 Office 510-618-2003 Elsie.Kusel@acgov.org
CP008	Post Discharge Follow up	San Bernardino County Fire Department	Tom Lynch, Administrator Inland Counties EMS Agency 1425 South "D" Street San Bernardino, CA 92415-0060 Office 909-388-5830 Tom.lynch@cao.sbcounty.gov	Dr. Troy Pennington San Bernardino County Fire Department 157 W. 5th Street, Second Floor San Bernardino, CA 92415-0451 tpennington@sbcfire.org	Sara Morning San Bernardino County Fire Department 157 W. 5th Street, Second Floor San Bernardino, CA 92415-0451 smorningl@sbcfire.org

Updated: February 25, 2019

CP010	Frequent 911 Callers	City of San Diego & American Medical Response	Marcy Metz, Chief County of San Diego Emergency Medical Services 6255 Mission Gorge Road San Diego, CA 92120 Phone: (619) 285-6476 Marcy.Metz@sdcounty.ca.gov	Dr. James Dunford City of San Diego Fire Department 1010 Second Avenue, Suite 300 San Diego, CA 92101 Office 619-533-4338 jdunford@sandiego.gov	Anne Marie Jenson, PM City of San Diego Fire Department 1010 Second Avenue, Suite 300 San Diego, CA 92101 Office 619-533-4338 ajensen@sandiego.gov
CP012	Alt Destinations (Mental Health)	AMR Stanislaus	Linda Diaz, BSN, RN, PHN Mountain Valley - EMS 1101 Standiford Ave. Ste D-1 Modesto, Calif. 95350 209-566-7207 (direct line) 209-529-5085 (office) 209-769-2063 (cell) ldiaz@mvemsa.com	Kevin Mackey, MD Associate Medical Director Mountain Valley - EMS 1101 Standiford Ave. Ste D-1 Modesto, Calif. 95350 209-566-7207 (direct line) 209-529-5085 (office) Drmackey@comcast.net	Kevin Mackey, MD Associate Medical Director Mountain Valley - EMS 1101 Standiford Ave. Ste D-1 Modesto, Calif. 95350 209-566-7207 (direct line) 209-529-5085 (office) Drmackey@comcast.net
CP013	Post Discharge Follow Up	Medic Ambulance	Ted Selby, Director Solano County Public Health Emergency Services Emergency Medical Services 275 Beck Avenue, MS 5-240 Fairfield, CA 707-784-8155 Office 707-784-8155 tselby@solanocounty.com	Paul Kivela, MD Medical Director Medic Ambulance Service 506 Couch Street Vallejo, CA 94590 Office 707-644-1761 pkivela@medicambulance.net	James Pierson, Vice President Medic Ambulance Service 506 Couch Street Vallejo, CA 94590 Office 707-644-1761 Jpierson@medicambulance.net
CP014	Alt Dest Sobering Center	SF City & County Fire Department	John Brown, MD San Francisco Public Health Dept EMS Agency Medical Director 30 Van Ness Ave #3300, San Francisco, CA 94102 John.brown@sfgov.org	Clement Yeh, MD Medical Director San Francisco City & County Fire Department 698 2nd Street San Francisco, Ca 94107 415-558-3200 Clement.yeh@sfgov.org	Megan Kennel MSN, RN, PHN San Francisco Sobering Center Medical Respite Program 1171 Mission Street San Francisco CA 94103 415-734-4209 (office 415-734-4227 (24/7 Sobering clinical Megan.kennel@sfdph.org

Updated: February 25, 2019

CP 015	Alternate Dest Mental Health & Sobering Center	Gilroy Fire Department	Dr. Kenneth Miller Santa Clara County EMS Agency 700 Empey Way San Jose, California 95128 408-601-9576 Cell: 714-746-6531 Kenneth.miller@ems.sccgov.org	Dr. Kenneth Miller Santa Clara County EMS Agency 700 Empey Way San Jose, California 95128 408-601-9576 Cell: 714-746-6531 Kenneth.miller@ems.sccgov.org	Dr. Kenneth Miller Santa Clara County EMS Agency 700 Empey Way San Jose, California 95128 408-601-9576 Cell: 714-746-6531 Kenneth.miller@ems.sccgov.org
CP 016 Pending Implementation	Post Discharge	Dignity Health EMS	John Poland Sierra- Sac EMS Agency 5995 Pacific Street Rocklin, CA 95677 Main: 916.625.1702 | Desk: 916.625.1719 John.poland@ssvems.com	Michael Arce, MD Dignity EMS Medical Director Mercy Medical Center 2175 Rosaline Ave Redding, CA 96001 Michael.arce@dignityHealth.org	Jason M. Swann MICP, CMTE, FP-C EMS Dignity EMS Operations Manager Mercy Medical Center 2175 Rosaline Ave Redding, CA 96001 Jason.Swann@DignityHealth.org
CP 017 Pending Implementation	Post Discharge	Cal Tahoe Fire	Richard Todd, Administrator El Dorado County EMS Agency 2900 Fairlane Court Placerville, CA 95667 (530) 621-6500 Richard.todd@edcgov.us	David Brazzel, MD Medical Director El Dorado County EMS Agency 2900 Fairlane Court Placerville, CA 95667 (530) 621-6500 David.brazzel@edcgov.us	Ryan Wagoner, Executive Director Cal Tahoe JPA 2951 Lake Tahoe Blvd South Lake Tahoe, CA 96150 530-542-6162 Office ryancaljpa@gmail.com
CP 021	**(EMS6 Program)** Frequent 911 User Post Discharge Alt Dest Mental Health	SF City & County Fire Department	John Brown, MD San Francisco Public Health Dept EMS Agency Medical Director 30 Van Ness Ave #3300, San Francisco, CA 94102 John.brown@sfgov.org	Clement Yeh, MD Medical Director San Francisco City & County Fire Department 698 2nd Street San Francisco, Ca 94107 415-558-3200 Clement.yeh@sfgov.org	Clement Yeh, MD Medical Director San Francisco City & County Fire Department 698 2nd Street San Francisco, Ca 94107 415-558-3200 Clement.yeh@sfgov.org

Updated: February 25, 2019

CP 022	Alt Dest Mental Health	American Ambulance, Fresno	Dan Lynch, Administrator Central California EMS Agency 1221 Fulton Mall, 5th Floor PO Box 11867, Fresno CA 93775-1867 (559) 600-3387 dlynch@co.fresno.ca.us	Jim Andrews, MD Medical Director Central California EMS Agency 1221 Fulton Mall, 5th Floor PO Box 11867, Fresno CA 93775-1867 (559) 600-3387 Jeaems@aol.com	Dan Lynch, Administrator Central California EMS Agency 1221 Fulton Mall, 5th Floor PO Box 11867, Fresno CA 93775-1867 (559) 600-3387 dlynch@co.fresno.ca.us

CALIFORNIA
HOSPITAL
ASSOCIATION

Providing Leadership in
Health Policy and Advocacy

October 16, 2019

TO: CHA EMS/T Committee

FROM: BJ Bartleson, RN, MS, NEA-BC, Vice President Nursing & Clinical Services

SUBJECT: ED Ligature Risk Guidance

SUMMARY

CHA submitted a comment letter on the Centers for Medicare and Medicaid Services' (CMA) revised draft guidance on ligature risk polices for psychiatric hospitals and psychiatric units. In its draft guidance, released April 19, CMS clarifies existing 2017 ligature risk interpretive guidelines. This includes a differentiation between locked and unlocked psychiatric units, requiring education and training for hospital staff, and revising surveyor procedures. In its comments, CHA urges the agency to clarify several areas. Specifically, CHA asks CMS to limit the scope of ligature risk requirements to locked psychiatric units, within psychiatric and acute care hospitals, and to remove references to emergency departments, which have resulted in significant confusion. In addition, CHA urges CMS to develop – with stakeholder input - extensive surveyor education on the guidance to ensure consistent and effective interpretation of the requirements. CHA also asked CMS to provide several clarifications on its ligature risk extension request process.

In addition, CHA had unclear information regarding emergency department ligature risk requirements presented from the Joint Commission. There was also a website FAQ that was misleading relative to emergency department requirements. This FAQ was revised and reposted by Kathryn Petrovic, Field Director for TJC who worked with the Standards Interpretation Group to rectify the issue. The new FAQ now reads:

1215 K Street, Suite 800, Sacramento, CA 95814 • *Telephone:* 916.443.7401 • *Facsimile:* 916.552.7596 • www.calhospital.org
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National Patient Safety Goals (NPSG) (Hospital and Hospital Clinics / Hospitals)

Ligatures and Suicide Risk Reduction - Emergency Department - Ligature-resistant Requirements
Do emergency departments need to be ligature resistant ?

No. Emergency departments do not need to meet the same standards as an inpatient psychiatric unit to be a ligature-resistant environment. Patients in emergency departments often require equipment to monitor and treat their medical conditions, so it is impossible to make their environment truly ligature resistant. However, organizations must implement safeguards to keep patients with active suicidality safe during the course of treatment in that setting (see also the FAQ titled *"Do we have to assess every patient for suicide risk who comes into the emergency department ?"*). In designing the emergency department environment, the organization must first consider state rules and regulations (typically the state health department). Spaces/rooms designated ONLY for the treatment of patients with behavioral health conditions within an emergency department must meet the ligature-resistant requirements.

This FAQ was also published in the Perspectives® Newsletter, July 2018, Volume 38, Issue 7 - The Official Newsletter of The Joint Commission.

DISCUSSION

1. Are there any other issues relative to ligature risk requirements within EDs?

ACTION REQUESTED

➢ Review and discuss if there are any additional issues.

BJB:br

October 16, 2019

TO: CHA EMS/T Committee

FROM: BJ Bartleson, RN, MS, NEA-BC, Vice President Nursing & Clinical Services

SUBJECT: LEMSA Designation Fees

SUMMARY

At our last meeting, LEMSA designation fees and LEMSA responsibilities were discussed. Since that time, we've been able to obtain a complete spreadsheet of all LEMSA fees, including trauma, stroke, STEMI and pediatric receiving center facilities. (See attachment). We've also obtained further information that any fee increase (per Prop 26), triggers a county auditor controller cost study. This is also consistent with H&S Code 1797.200 regarding "fees reasonable to cover costs".

Compliance with Prop 26: see page 6)
The proposed fee schedule does not fall within the definition of a "Tax" under proposition 26 because it is exempted by California Constitution Article XIII C, Section 1, Subdivisions e) (1), (2), and (3). Subdivision (e)(1) excepts from the definition of a tax, "a charge imposed for a specific benefit conferred or privilege granted directly to the payor that is not provided to those not charged, and which does not exceed the reasonable costs to the local government of conferring the benefit or granting the privilege." Subdivision (e)(2) excepts from the definition of a tax, "a charge imposed for a specific government service or product provided directly to the payer that is not provided to those not charged, and which does not exceed the reasonable costs to the local government of providing the service or product." Subdivision (e)(3) excepts from the definition of tax, "a charge imposed for the reasonable regulatory costs to a local government for issuing licenses and permits, permits, performing investigations, inspections and audits, enforcing agricultural marketing orders, and the administrative enforcement and adjudication thereof." These exemptions apply because the fees are established to fund the services for which the fees are charged. ==Additionally, the fee amounts are no more than is necessary to recover the reasonable cost of the HCA fee related activities.==

An example of a fee study from Orange County can be found at:
http://cams.ocgov.com/Web_Publisher_Sam/Agenda02_14_2017_files/images/45-02142017_9849229.PDF

DISCUSSION
1. Are there concerns and or issues regarding LEMSA fees?
2. Are hospitals being asked to do more relative to CQI or data collection/analysis?
3. Thoughts on what base station status and CQI would look like with the addition of alternate destinations in the future?

ACTION REQUESTED

➢   Information and feedback requested

Attachment: LEMSA Fee Comparison, 2019
BJB:br

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LEMSA FEES 2019	Population Based on CA DOF 2017-18 Estimates	Ambulance Company License	Vehicle Inspection	Critical Care/IFT Paramedic Provider	MICN Training	MICN Cert/Recert	EMT Certification	EMT Re-Certification	Replacement Card	Paramedic Accreditation	Ambulance Attendant EMR
		ANNUAL			BIENNIEL		Includes state fees				
ALAMEDA	1,660,202	$3,000.00	$250.00	$10,000.00			$140.00	$102.00	$30.00	$100.00	
CENTRAL CALIFORNIA	1,793,619	$221			$261.00	$39.00	$127.00	$82.00	$10.00	$48.00	
COASTAL VALLEYS	592,631	$3,000.00	$250.00		$50.00	$25.00	$155.00	$117.00	$12.50	$200.00	
CONTRA COSTA	1,149,363	$8,000.00	$125.00	$10,000.00		$90.00	$160.00	$122.00	$25.00	$25.00	$90.00
EL DORADO	188,399	$397.00	$189.00	$397.00		$48.00	$100.00	$62.00	$10.00	$35.00	$25.00
ICEMA	2,207,337	$2,000.00	$400.00		$400.00	$120-235	$70.00	$70.00	$25.00	$120.00	
IMPERIAL	190,624	Time+Materials	Time+Materials	Time+Materials		$20.00	$85.00	$47.00		$20.00	
KERN	905,801	$20,000 per EOA				$100.00	$175.00	$137.00		$100.00	
LOS ANGELES	10,283,729	$4,846/$7,566	$378.00			$175/$50	$160.00	$120.00	$12.00	$150.00	N/A
MARIN	263,886						$15.00	$15.00		$75.00	
MERCED	279,977	Varies				$60.00	$125.00	$87.00	$15.00	$100.00	
MONTEREY	443,281		$950.00								
MOUNTAIN VALLEY	658,158					$100/50	$125.00	$87.00	$20.00	$100.00	$30.00
NAPA	141,294	$4,000.00	$150.00	$4,000.00	n/a	n/a	$155.00	$117.00	$10.00	$200.00	
NORTH COAST	228,304					$80/$50	$115.00	$77.00	$10.00	$150.00	
NORTHERN CALIFORNIA	77,138	$425-$1855			0	$100/$28	$45.00	$28.00	$0.00	$100.00	$35.00
ORANGE[1,2,3]	3,221,103	$2,234.00	$160.00	$1,525.00		$108.00	$125.00	$60.00	$25.00	$73.00	$85.00
RIVERSIDE*	2,415,955	$3,000/$6,000	$250.00	$6,000.00		$75.00	$25.00	$25.00	$10.00	$75.00	
SACRAMENTO	1,529,501	$15,649.08		$12,500.00	$819.33	$36.67	$49.10	$49.10	$5.00	$93.09	$40.00
SAN BENITO	57,088	$750.00		$750.00			$135.00	$90.00	$20.00	$150.00	
SAN DIEGO	3,337,456	$3,185.00	$335.00	$483.00	$86.00	$86.00	$86.00	$86.00	$0.00	$86.00	
SAN FRANCISCO	883,963	5,901	1,888.32				171.38	126.45		36.58	
SAN JOAQUIN	758,744	$13,275.00				$125.00	$155.00	$117.00	$25.00	$325.00	$35.00
SAN LUIS OBISPO	280,101				$250.00	$139.00	$103.00	$65.00	$13.00	$153.00	
SAN MATEO	774,155						$125.00	$87.00		$50.00	
SANTA BARBARA	453,457						$89.00	$57.00	-	$209.00	
SANTA CLARA	1,956,598	$6,063.75	$1,047.38	$6,615.00		$20.00	$50.00	$50.00	$20.00	$150.00	
SANTA CRUZ	276,864	5000/1000		$1,000.00		$75.00	$175.00	$137.00	$25.00	$75.00	
SIERRA-SACRAMENTO	1,226,089	$500.00	$0.00	$0.00	$100.00	$100.00	$28.00	$28.00	$10.00	$100.00	$28.00
SOLANO	439,793	$1,500.00	$100.00	$7,500.00		$75.00	$125.00	$87.00	$15.00	$75.00	
TUOLUMNE	54,740				51.25	26	85	26			

LEMSA FEES 2019	Population Based on CA DOF 2017-18 Estimates	Ambulance Company License	Vehicle Inspection	Critical Care/IFT Paramedic Provider	MICN Training	MICN Cert/Recert	EMT Certification	EMT Re-Certification	Replacement Card	Paramedic Accreditation	Ambulance Attendant EMR
		ANNUAL			BIENNIEL		Includes state fees				
VENTURA	859,073						$132.00	$93.00	$26.00	$77.00	
YOLO	221,270	$2,000.00	600-400	N/A	N/A	N/A	$100.00	$60.00	$25.00	$53.00	$35.00

LEMSA FEES 2019	EMS Dispatcher Certification	CE Provider	EMT Program Approval	CPR/Public Safety First Aid	Tactical EMS Program Authorization	Public Safety Narcan Program Authorization	Paramedic Program Approval	Field Manual	Customized Data Report	Base Hospital	Emergency Receiving Center	Burn
		(4yr)										
ALAMEDA		$2,000.00	$3,000.00				$4,500.00	$30.00				
CENTRAL CALIFORNIA	$63.00						$0.00					
COASTAL VALLEYS			$3,000.00	$3,000.00			$4,500.00			$58,901.00		
CONTRA COSTA		$2,500.00	$3,500.00	$1,400.00	$250.00	$250.00	$20,000.00					
EL DORADO		$85.00	$529.00	$100.00								
ICEMA		$650.00	$1,500.00				$1,500.00	$40.00		$5,000.00		
IMPERIAL		$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	N/A		$0.00	$0.00	$0.00
KERN	$100.00											$19,318.89
LOS ANGELES									$224-$655	$15,449.00		
MARIN												
MERCED	$50.00											
MONTEREY												
MOUNTAIN VALLEY		$200.00	$2,500.00	$1,000.00			$10,000.00	$10.00	$35/hr	$5,000.00		
NAPA		$2,000.00	$4,000.00				$8,000.00			$25,000.00	$15,000.00	
NORTH COAST												
NORTHERN CALIFORNIA	N/A	$100.00	$0.00	$0.00			$0.00	$0.00		$1700-$4850	$1700-$4850	
ORANGE[1,2,3]		$325.00	$923.00				$932.00		$109.00		$1,184.00	
RIVERSIDE*									$100/hr	$8,271.12	$0.00	$0.00
SACRAMENTO	n/a	$394.99	$1,403.98	see below			$7,642.22					
SAN BENITO		$250.00	$1,053.00	$250.00			$1,250.00	$5.00				
SAN DIEGO		$1,135.00								$24,794.00		
SAN FRANCISCO		672	1,339.00				2,004.00				12,106.00	
SAN JOAQUIN	$35.00	$7,040.00	$13,640.00				$15,840.00					
SAN LUIS OBISPO		$91.00	$7,988.00				$8,787.00					
SAN MATEO												
SANTA BARBARA		-	-	-			-					
SANTA CLARA		$1,000.00	$1,000.00				$5,000.00				$11,025.00	
SANTA CRUZ	$75.00	$500.00	$1,500.00	$1,500.00								
SIERRA-SACRAMENTO	$0.00	$25.00	$25.00				$1,900.00	$10.00				
SOLANO		$1,000.00	$3,000.00							$5,000.00		
TUOLUMNE												

LEMSA FEES 2019	EMS Dispatcher Certification	CE Provider	EMT Program Approval	CPR/Public Safety First Aid	Tactical EMS Program Authorization	Public Safety Narcan Program Authorization	Paramedic Program Approval	Field Manual	Customized Data Report	Base Hospital	Emergency Receiving Center	Burn
		(4yr)										
VENTURA			$472.00				$675.00					
YOLO	N/A	$1,500.00	$5,000.00	N/A			$ 25,000.00	n/a	n/a	$ 5,000.00	n/a	n/a

Sacramento County:

means: New Fee Effctive July 1, 2019

Optional PSFA Scope of Pratice (Narcan): Agency Approval: $1,500.00

Stroke: Receiving Center - $14,000

Stroke: Comprehensive Center: $28,000

Tactical Training Arroval: $10,000

CCP Training Program Approval: $6,000

CCP Accreditation: $34

EMR Training Approval: $1,500

Sacramento County:

means: Level I Peds/Adult: - $106,136.24 (requesting increase effective 7/1/19 to $13

Level II: In -County: - $54,764.20/$54,644.39 (requesting increase effective 7/1/19 to $72,581.37 and

Level II: Out of County: $4,064 (requesting increase effective 7/1/19 to 10,191.08)

LEMSA FEES 2019	Trauma Receiving Center	Cardiac Receiving Center	Stroke Receiving Center	Pediatric Receiving Center	EDAP
	italicized fees are proposed				
ALAMEDA					
CENTRAL CALIFORNIA					
COASTAL VALLEYS	$151,953.00				
CONTRA COSTA	$350,000.00	$7,500.00	$7,500.00	$5,000.00	$7,500.00
EL DORADO					
ICEMA	$25,000.00	$17,445.00	$19,045.00		
IMPERIAL	$0.00	$0.00	$0.00	$0.00	
KERN	$140,113.00	$19,318.89	$19,318.89	$19,318.89	
LOS ANGELES			$21,037.00		
MARIN	$30,000.00	$2,500.00	$2,500.00		
MERCED					
MONTEREY	$125,000.00				
MOUNTAIN VALLEY	$100,000.00	$32,000.00	$25,000.00		
NAPA	$30,000.00	$15,000.00	$30,000.00		
NORTH COAST	$5,000.00	$10,000.00			
NORTHERN CALIFORNIA	$4000 Level IV				
ORANGE[1,2,3]	*$9,185.00*	*$8,282.00*	*$9,923.00*	*$8,716.00*	
RIVERSIDE*	*$49,626.70*	*$33,084.46*	*$20,677.79*	$0.00	
SACRAMENTO	See below	$14,000.00	See below	$6,000.00	
SAN BENITO	$4,700.00	$4,700.00			
SAN DIEGO	$50,049.00				
SAN FRANCISCO		15,032.00			
SAN JOAQUIN	$217,000.00	$25,000.00	$25,000.00		
SAN LUIS OBISPO	$75,000.00	$25,000.00			
SAN MATEO		$25,000.00			
SANTA BARBARA	$170,818.00	$29,114.00		-	
SANTA CLARA	$110,250.00	$11,025.00	$11,025.00	$11,025.00	
SANTA CRUZ	$15,000.00	$15,000.00	$15,000.00	$400 (EDAP)	
SIERRA-SACRAMENTO	LII - 45000/LIII 500	$10,000.00			
SOLANO	$150,000.00				$5,000.00
TUOLUMNE					

LEMSA FEES 2019	Trauma Receiving Center	Cardiac Receiving Center	Stroke Receiving Center	Pediatric Receiving Center	EDAP
	italicized fees are proposed				
VENTURA	$75,000.00				
YOLO	50k-75k	$ 7,000.00	$ 5,000.00	N/A	
	2,984.43)				
	$69,224.37)				

October 16, 2019

TO: CHA EMS/T Committee

FROM: BJ Bartleson, RN, MS, NEA-BC, Vice President Nursing & Clinical Services
             Heather Venezio, RN, MS, CEN, TCRN, NorthBay Medical Center, Trauma Program Director

SUBJECT: EMSA Trauma Regulations - Pre-Public Comment Period Stakeholder Group

SUMMARY
Initially, EMSA engaged a small internal sub-group to set up and help define the scope of trauma regulatory revision considerations. They then developed the Trauma Regulations Taskforce, a larger collaborative with outside stakeholders to meet over an extended period to dialogue and focus on specific portions of the revision considerations. Two broad considerations being discussed are, 1) ACS verification requirement for Level I-III Trauma Centers, and, 2) Improving the delivery of optimal care at designated facilities. Both considerations align with the California Statewide Trauma System Planning document released in 2017.

All but a few L1,2,3 trauma centers in California are ACS verified. This requirement would make us consistent with national trends (e.g. New York State & others) and facilitate the ability to produce risk-adjusted outcomes analysis state-wide. To consider trauma centers that are not ACS verified, a window of time for compliance could be considered and or allowing the LEMSA to grant waivers under certain circumstances.

There has been discussion on such items as duel designation costs (Pediatric and Adult Trauma), Verification at a level higher than LEMSA designation, length of verification and designation time frames, and procedures if a designated trauma center fails to be verified or re-verified by ACS.

DISCUSSION
1. How do hospital trauma centers feel about the ACS verification requirement?
2. Are there other considerations within the regulations that need to be reviewed?
3. How does ACS trauma verification affect LEMSA trauma designation fees?
4. What within the ACS trauma guidelines is difficult for hospitals to meet?

ACTION REQUESTED

➢ Information and feedback requested

Attachments: California Code of Regulations, Title 22. Social Security, Division 9. Prehospital Emergency
                Medical Services, Chapter 7. Trauma Care Systems

BJB:br

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California Code of Regulations
TITLE 22. SOCIAL SECURITY
DIVISION 9. PREHOSPITAL EMERGENCY MEDICAL SERVICES
CHAPTER 7. TRAUMA CARE SYSTEMS

Article 1. Definitions

§ 100236. Abbreviated Injury Scale

"Abbreviated Injury Scale" or "AIS" is an anatomic severity scoring system. For the purposes of data sharing, the standard to be followed is AIS 90. For the purpose of volume performance measurement auditing, the standard to be followed is AIS 90, using AIS code derived or computer derived scoring.

NOTE: Authority cited: Sections 1797.107 and 1798.161, Health and Safety Code. Reference: Section 1798.161, Health and Safety Code.

§ 100237. Immediately Available

"Immediately" or "immediately available" means:
(a)   unencumbered by conflicting duties or responsibilities;
(b)   responding without delay when notified; and
(c)   being physically available to the specified area of the trauma center when the patient is delivered in accordance with local EMS agency policies and procedures.

NOTE: Authority cited: Sections 1797.107 and 1798.161, Health and Safety Code. Reference: Section 1798.161, Health and Safety Code.

§ 100238. Implementation

"Implementation" or "implemented" or "has implemented" means the development and activation of a trauma care system plan by a local EMS agency, including the actual triage, transport and treatment of trauma patients in accordance with the plan.

NOTE: Authority cited: Sections 1797.107 and 1798.161, Health and Safety Code. Reference: Section 1798.161, Health and Safety Code.

§ 100239. Injury Severity Score

"Injury Severity Score" or "ISS" means the sum of the squares of the Abbreviated Injury Scale score of the three most severely injured body regions.

NOTE: Authority cited: Sections 1797.107 and 1798.161, Health and Safety Code. Reference: Section 1798.161, Health and Safety Code.

§ 100240. On-Call

"On-call" means agreeing to be available to respond to the trauma center in order to provide a defined service.

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NOTE: Authority cited: Sections 1797.107 and 1798.161, Health and Safety Code. Reference: Section 1798.161, Health and Safety Code.

§ 100241. Promptly Available

"Promptly" or "promptly available" means:

(a)   responding without delay when notified and requested to respond to the hospital; and

(b)   being physically available to the specified area of the trauma center within a period of time that is medically prudent and in accordance with local EMS agency policies and procedures.

NOTE: Authority cited: Sections 1797.107 and 1798.161, Health and Safety Code. Reference: Section 1798.161 Health and Safety Code.

§ 100242. Qualified Specialist

"Qualified specialist" or "qualified surgical specialist" or "qualified non-surgical specialist" means a physician licensed in California who is board certified in a specialty by the American Board of Medical Specialties, the Advisory Board for Osteopathic Specialities, a Canadian board or other appropriate foreign specialty board as determined by the American Board of Medical Specialties for that specialty.

(a)   A non-board certified physician may be recognized as a "qualified specialist" by the local EMS agency upon substantiation of need by a trauma center if:

(1) the physician can demonstrate to the appropriate hospital body and the hospital is able to document that he/she has met requirements which are equivalent to those of the Accreditation Council for Graduate Medical Education (ACGME) or the Royal College of Physicians and Surgeons of Canada;

(2) the physician can clearly demonstrate to the appropriate hospital body that he/she has substantial education, training, and experience in treating and managing trauma patients which shall be tracked by the trauma quality improvement program; and

(3) the physician has successfully completed a residency program.

NOTE: Authority cited: Sections 1797.107 and 1798.161, Health and Safety Code. Reference: Section 1798.161, Health and Safety Code.

§ 100243. Receiving Hospital

"Receiving hospital" means a licensed general acute care hospital with a special permit for basic or comprehensive emergency service, which has not been designated as a trauma center according to this Chapter, but which has been formally assigned a role in the trauma care system by the local EMS agency. In rural areas, the local EMS agency may approve standby emergency service if basic or comprehensive services are not available.

NOTE: Authority cited: Sections 1797.107 and 1798.161, Health and Safety Code. Reference: Section 1798.161, Health and Safety Code.

§ 100244. Residency Program

"Residency program" means a residency program of the trauma center or a residency program formally affiliated with a trauma center where senior residents can participate in educational rotations, which has been approved by the appropriate Residency Review Committee of the Accreditation Council on Graduate Medical Education.

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§ 100245. Senior Resident

"Senior resident" or "senior level resident" means a physician, licensed in the State of California, who has completed at least three (3) years of the residency or is in their last year of residency training and has the capability of initiating treatment and who is in training as a member of the residency program as defined in Section 100244 of this Chapter, at the designated trauma center.

§ 100246. Service Area

"Service area" means that geographic area defined by the local EMS agency in its trauma care system plan as the area served by a designated trauma center.

§ 100247. Trauma Care System

"Trauma care system" or "trauma system" or "inclusive trauma care system" means a system that is designed to meet the needs of all injured patients. The system shall be defined by the local EMS agency in its trauma care system plan as described in Section 100256 of this Chapter.

§ 100248. Trauma Center

"Trauma Center" or "designated trauma center" means a licensed hospital, accredited by the Joint Commission on Accreditation of Healthcare Organizations, which has been designated as a Level I, II, III, or IV trauma center and/or Level I or II pediatric trauma center by the local EMS agency, in accordance with Articles 2 through 5 of this Chapter.

§ 100249. Trauma Resuscitation Area

"Trauma Resuscitation Area" means a designated area within a trauma center where trauma patients are evaluated upon arrival.

§ 100250. Trauma Service

A "trauma service" is a clinical service established by the organized medical staff of a trauma center that has oversight and responsibility of the care of the trauma patient. It includes, but is not limited to, direct patient care services, administration, and as needed, support functions to provide medical care to injured persons.

NOTE: Authority cited: Sections 1797.107 and 1798.161, Health and Safety Code. Reference: Section 178.161, Health and Safety Code.

§ 100251. Trauma Team

"Trauma team" means the multidisciplinary group of personnel who have been designated to collectively render care for trauma patients at a designated trauma center. The trauma team consists of physicians, nurses and allied health personnel. The composition of the trauma team may vary in relationship to trauma center designation level and severity of injury which leads to trauma team activation.

NOTE: Authority cited: Sections 1797.107 and 1798.161, Health and Safety Code. Reference: Section 1798.161, Health and Safety Code.

§ 100252. Triage Criteria

"Triage criteria" means a measure or method of assessing the severity of a person's injuries that is used for patient evaluation and that utilizes anatomic or physiologic considerations or mechanism of injury.

NOTE: Authority cited: Sections 1797.107 and 1798.161, Health and Safety Code. Reference: Section 1798.161, Health and Safety Code.

Article 2. Local EMS Agency Trauma System Requirements

§ 100253. Application of Chapter

(a)   A local EMS agency which has implemented or plans to implement a trauma care system shall develop a written trauma care system plan that includes policies and/or procedures to assure compliance of the trauma system with the provisions of this Chapter.

(b)   A local EMS agency may specify additional requirements in addition to those specified in this Chapter.

(c)   A local EMS agency that implements a trauma care system on or after the effective date of this Chapter shall submit its trauma system plan to the EMS Authority and have it approved prior to implementation.

(d)   A local EMS agency that has implemented a trauma system prior to the effective date of the revisions to this Chapter shall submit its updated trauma system plan to the EMS Authority within two (2) years of the effective date of the revisions to this Chapter which is August 12, 1999.

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(e) The EMS Authority shall notify the local EMS agency submitting its trauma care system plan within fifteen (15) days of receiving the plan that:
  (1) its plan has been received, and
  (2) it contains or does not contain the information requested in Section 100255 of this Chapter.
(f) The EMS Authority shall:
  (1) notify the local EMS agency either of approval or disapproval of its trauma system plan within sixty (60) days of receipt of the plan; and
  (2) provide written notification of approval or the reasons for disapproval of a trauma system plan.

(g) If the EMS Authority disapproves a trauma system plan, the local EMS agency shall have six (6) months from the date of notification of the disapproval to submit a revised trauma system plan which conforms to this Chapter or to appeal the decision to the Commission on Emergency Medical Services (EMS) which shall make a determination within four (4) months of receipt of the appeal. If a revised trauma system plan is approved by the EMS Authority the local EMS agency shall begin implementation of the plan within six (6) months of its approval.
(h) If the EMS Authority determines that a local EMS agency has failed to implement the trauma system in accordance with the approved plan, the approval of the plan may be withdrawn. The local EMS agency may appeal the decision to the Commission on EMS, which shall make a determination within six (6) months of the appeal.
(i) After approval of a trauma system plan, the local EMS agency shall submit to the EMS Authority for approval any significant changes to that trauma system plan prior to the implementation of the changes. In those instances where a delay in approval would adversely impact the current level of trauma care, the local EMS agency may institute the changes and then submit the changes to the EMS Authority for approval within thirty (30) days of their implementation.
(j) The local EMS agency shall submit a trauma system status report as part of its annual EMS Plan update. The report shall address, at a minimum, the status of trauma plan goals and objectives.
(k) No health care facility shall advertise in any manner or otherwise hold themselves out to be a trauma center unless they have been so designated by the local EMS agency, in accordance with this Chapter.
(l) No provider of prehospital care shall advertise in any manner or otherwise hold itself out to be affiliated with the trauma system or a trauma center unless they have been so designated by the local EMS agency, in accordance with this Chapter.

NOTE: Authority cited: Sections 1797.107 and 1798.161, Health and Safety Code. Reference: Sections 1797.257, 1798.161, 1798.163, and 1798.166, Health and Safety Code.

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§ 100254. Trauma System Criteria

(a)   A local EMS agency that plans to implement or modify a trauma system shall include with the trauma plan, a description of the rationale used for trauma system design planning for number and location of trauma centers including:

   (1)   projected trauma patient volume and projected number and level of trauma centers necessary to provide access to trauma care;

      (A)   No more than one (1) Level I or II trauma center shall be designated for each 350,000 population within the service area.

      (B)   Where geography and population density preclude compliance with subsection (a)(1)(A), exemptions may be granted by the EMS Authority with the concurrence of the Commission on EMS on the basis of documented local needs.

   (2)   resource availability to meet staffing requirements for trauma centers;

   (3)   transport times;

   (4)   distinct service areas; and

   (5)   coordination with neighboring trauma systems.

(b)   The local EMS agency may authorize the utilization of air transport within its jurisdiction to geographically expand the primary service area(s) provided that the expanded service area does not encroach upon another trauma system, or that of another trauma center, unless written agreements have been executed between the involved local EMS agencies and/or trauma centers.

(c)   A local EMS agency may require trauma centers to have helicopter landing sites. If helicopter landing sites are required, then they shall be approved by the Division of Aeronautics, Department of Transportation pursuant to Division 2.5, Title 21 of the California Code of Regulations.

(d)   All prehospital emergency medical care personnel rendering trauma patient care within an organized trauma system shall be trained in the local trauma triage and patient care methodology.

(e)   All trauma patient transport vehicles shall be equipped with two-way telecommunications equipment capable of accessing hospitals, in accordance with local EMS agency policies regarding communication.

(f)   All prehospital providers shall have a policy approved by the local EMS agency for the early notification of trauma centers of the impending arrival of a trauma patient.

NOTE: Authority cited: Sections 1797.107 and 1798.161, Health and Safety Code. Reference: Sections 1798.161, 1798.162, 1798.163, 1798.165, and 1798.166 of the Health and Safety Code.

§ 100255. Policy Development

A local EMS agency planning to implement a trauma system shall develop policies which provide a clear understanding of the structure of the trauma system and the manner in which it utilizes the resources available to it. The trauma system policies shall address at least the following:

(a)   system organization and management;

(b)   trauma care coordination within the trauma system;

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(c)   trauma care coordination with neighboring jurisdictions, including EMS agency/system agreements;

(d)   data collection and management;

(e)   fees, including those for application, designation and redesignation, monitoring and evaluation;

(f)   establishment of service areas for trauma centers;

(g)   trauma center designation/redesignation process to include a written agreement between the local EMS agency and the trauma center;

(h)   coordination with all health care organizations within the trauma system to facilitate the transfer of an organization member in accordance with the criteria set forth in Article 5 of this Chapter;

(i)   coordination of EMS and trauma system for transportation including intertrauma center transfer and transfers from a receiving hospital to a trauma center;

(j)   the integration of pediatric hospitals, if applicable;

(k)   trauma center equipment;

(l)   ensuring the availability of trauma team personnel;

(m)   criteria for activation of trauma team;

(n)   mechanism for prompt availability of specialists;

(o)   quality improvement and system evaluation to include responsibilities of the multidisciplinary trauma peer review committee;

(p)   criteria for pediatric and adult trauma triage, including destination;

(q)   training of prehospital EMS personnel to include trauma triage;

(r)   public information and education about the trauma system;

(s)   marketing and advertising by trauma centers and prehospital providers as it relates to the trauma care system; and

(t)   coordination with public and private agencies and trauma centers in injury prevention programs.

NOTE: Authority cited: Sections 1797.107 and 1798.161, Health and Safety Code. Reference: Sections 1798.161 and 1798.163, Health and Safety Code.

§ 100256. Trauma Plan Development

(a)   The initial plan for a trauma care system that is submitted to the EMS Authority shall be comprehensive with objectives that shall be clearly stated. The initial trauma care system plan shall contain at least the following:

(1)   summary of the plan:

(2)   organizational structure;

(3)   needs assessment;

(4)   inclusive trauma system design, which includes those facilities involved in the care of acutely injured patients, including coordination with neighboring agencies;

(5)   documentation that any intercounty trauma center agreements have been approved by the EMS agencies of both counties;

(6)   objectives;

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(7)   implementation schedule;

(8)   fiscal impact of the system;

(9)   policy and plan development process;

(10)   written documentation of local approval; and

(11)   table of contents identifying where the information in this Section and Sections 100254, 100255 and 100257 of this Chapter can be found in the plan.

(b)   The system design shall address the operational implementation of the policies developed pursuant to Section 100255 and the following aspects of hospital service delivery:

(1)   Critical care capability including but not limited to burns, spinal cord injury, rehabilitation and pediatrics;

(2)   medical organization and management; and

(3)   quality improvement.

(c)   A local EMS agency shall advise the EMS Authority when there are any changes or revisions in policy or plan development pursuant to the sections of this Article.

NOTE: Authority cited: Sections 1797.107 and 1798.161, Health and Safety Code. Reference: Sections 1797.258, 1798.161, and 1798.166 Health and Safety Code.

§ 100257. Data Collection

(a)   The local EMS agency shall develop and implement a standardized data collection instrument and implement a data management system for trauma care.

(1)   The system shall include the collection of both prehospital and hospital patient care data, as determined by the local EMS agency;

(2)   trauma data shall be integrated into the local EMS agency and State EMS Authority data management system; and

(3)   all hospitals that receive trauma patients shall participate in the local EMS agency data collection effort in accordance with local EMS agencies policies and procedures.

(b)   The prehospital data shall include at least those data elements required on the EMT-II or EMT-P patient care record, as specified in Section 100129 of the EMT-II regulations and Section 100176 of the EMT-P regulations.

(c)   The hospital data shall include at least the following, when applicable:

(1)   Time of arrival and patient treatment in:

(A)   Emergency department or trauma receiving area; and

(B)   operating room.

(2)   Dates for:

(A)   Initial admission;

(B)   intensive care; and

(C)   discharge.

(3)   Discharge data, including:

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(A)   Total hospital charges (aggregate dollars only);

(B)   patient destination; and

(C)   discharge diagnosis.

(4)   The local EMS agency shall provide periodic reports to all hospitals participating in the trauma system.

NOTE: Authority cited: Sections 1797.107 and 1798.161, Health and Safety Code. Reference: Section 1798.161, Health and Safety Code.

§ 100258. Trauma System Evaluation

(a)   The local EMS agency shall be responsible for the development and ongoing evaluation of the trauma system.

(b)   The local EMS agency shall be responsible for the development of a process to receive information from EMS providers, participating hospitals and the local medical community on the evaluation of the trauma system, including but not limited to:

(1)   trauma plan;

(2)   triage criteria;

(3)   activation of trauma team; and

(4)   notification of specialists.

(c)   The local EMS agency shall be responsible for periodic performance evaluation of the trauma system, which shall be conducted at least every two (2) years. Results of the trauma system evaluation shall be made available to system participants.

(d)   The local EMS agency shall be responsible for ensuring that trauma centers and other hospitals that treat trauma patients participate in the quality improvement process contained in Section 100265.

NOTE: Authority cited: Sections 1797.107 and 1798.161, Health and Safety Code. Reference: Section 1798.161, Health and Safety Code.

Article 3. Trauma Center Requirements

§ 100259. Level I and Level II Trauma Centers

(a)   A Level I or II trauma center is a licensed hospital which has been designated as a Level I or II trauma center by the local EMS agency. While both Level I and II trauma centers are similar, a Level I trauma center is required to have staff and resources not required of a Level II trauma center. The additional Level I requirements are located in Section 100260. Level I and II trauma centers shall have appropriate pediatric equipment and supplies and be capable of initial evaluation and treatment of pediatric trauma patients. Trauma centers without a pediatric intensive care unit, as outlined in (e)(1) of this section, shall establish and utilize written criteria for consultation and transfer of pediatric patients needing intensive care. A Level I or Level II trauma center shall have at least the following:

(1)   A trauma program medical director who is a board-certified surgeon, whose responsibilities

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include, but are not limited to, factors that affect all aspects of trauma care such as:

    (A)   recommending trauma team physician privileges;

    (B)   working with nursing and administration to support the needs of trauma patients;

    (C)   developing trauma treatment protocols;

    (D)   determining appropriate equipment and supplies for trauma care;

    (E)   ensuring the development of policies and procedures to manage domestic violence, elder and child abuse and neglect;

    (F)   having authority and accountability for the quality improvement peer review process;

    (G)   correcting deficiencies in trauma care or excluding from trauma call those trauma team members who no longer meet standards;

    (H)   coordinating pediatric trauma care with other hospital and professional services;

    (I)   coordinating with local and State EMS agencies;

    (J)   assisting in the coordination of the budgetary process for the trauma program; and

    (K)   identifying representatives from neurosurgery, orthopaedic surgery, emergency medicine, pediatrics and other appropriate disciplines to assist in identifying physicians from their disciplines who are qualified to be members of the trauma program.

(2)   A trauma nurse coordinator/manager who is a registered nurse with qualifications including evidence of educational preparation and clinical experience in the care of the adult and/or pediatric trauma patient, administrative ability, and responsibilities that include but are not limited to:

    (A)   organizing services and systems necessary for the multidisciplinary approach to the care of the injured patient;

    (B)   coordinating day-to-day clinical process and performance improvement as it pertains to nursing and ancillary personnel; and

    (C)   collaborating with the trauma program medical director in carrying out the educational, clinical, research, administrative and outreach activities of the trauma program.

(3)   A trauma service which can provide for the implementation of the requirements specified in this Section and provide for coordination with the local EMS agency.

(4)   A trauma team, which is a multidisciplinary team responsible for the initial resuscitation and management of the trauma patient.

(5)   Department(s), division(s), service(s) or section(s) that include at least the following surgical specialties, which are staffed by qualified specialists:

    (A)   general;

    (B)   neurologic;

    (C)   obstetric/gynecologic;

    (D)   ophthalmologic;

    (E)   oral or maxillofacial or head and neck;

    (F)   orthopaedic;

    (G)   plastic; and

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(H)   urologic

(6)   Department(s), division(s), service(s) or section(s) that include at least the following non-surgical specialties, which are staffed by qualified specialists:

(A)   anesthesiology;

(B)   internal medicine;

(C)   pathology;

(D)   psychiatry; and

(E)   radiology;

(7)   An emergency department, division, service or section staffed with qualified specialists in emergency medicine who are immediately available.

(8)   Qualified surgical specialist(s) or specialty availability, which shall be available as follows:

(A)   general surgeon capable of evaluating and treating adult and pediatric trauma patients shall be immediately available for trauma team activation and promptly available for consultation;

(B)   On-call and promptly available:

1.   neurologic;

2.   obstetric/gynecologic;

3.   ophthalmologic;

4.   oral or maxillofacial or head and neck;

5.   orthopaedic;

6.   plastic;

7.   reimplantation/microsurgery capability. This surgical service may be provided through a written transfer agreement; and

8.   urologic.

(C)   Requirements may be fulfilled by supervised senior residents as defined in Section 100245 of this Chapter who are capable of assessing emergent situations in their respective specialties. When a senior resident is the responsible surgeon:

1.   the senior resident shall be able to provide the overall control and surgical leadership necessary for the care of the patient, including initiating surgical care;

2.   a staff trauma surgeon or a staff surgeon with experience in trauma care shall be on-call and promptly available;

3.   a staff trauma surgeon or a staff surgeon with experience in trauma care shall be advised of all trauma patient admissions, participate in major therapeutic decisions, and be present in the emergency department for major resuscitations and in the operating room for all trauma operative procedures.

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(D)   Available for consultation or consultation and transfer agreements for adult and pediatric trauma patients requiring the following surgical services;
1.   burns;
2.   cardiothoracic;
3.   pediatric;
4.   reimplantation/microsurgery; and
5.   spinal cord injury.

(9)   Qualified non-surgical specialist(s) or specialty availability, which shall be available as follows:

(A)   Emergency medicine, in-house and immediately available at all times. This requirement may be fulfilled by supervised senior residents, as defined in Section 100245 of this Chapter, in emergency medicine, who are assigned to the emergency department and are serving in the same capacity. In such cases, the senior resident(s) shall be capable of assessing emergency situations in trauma patients and of providing for initial resuscitation. Emergency medicine physicians who are qualified specialists in emergency medicine and are board certified in emergency medicine shall not be required by the local EMS agency to complete an advanced trauma life support (ATLS) course. Current ATLS verification is required for all emergency medicine physicians who provide emergency trauma care and are qualified specialists in a specialty other than emergency medicine.

(B)   Anesthesiology. Level II shall be promptly available with a mechanism established to ensure that the anesthesiologist is in the operating room when the patient arrives. This requirement may be fulfilled by senior residents or certified registered nurse anesthetists who are capable of assessing emergent situations in trauma patients and of providing any indicated treatment and are supervised by the staff anesthesiologist. In such cases, the staff anesthesiologist on-call shall be advised about the patient, be promptly available at all times, and be present for all operations.

(C)   Radiology, promptly available; and

(D)   Available for consultation:
1.   cardiology;
2.   gastroenterology;
3.   hematology;
4.   infectious diseases;
5.   internal medicine:
6.   nephrology;
7.   neurology;
8.   pathology; and
9.   pulmonary medicine.

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(b)   In addition to licensure requirements, trauma centers shall have the following service capabilities:

(1)   Radiological service. The radiological service shall have immediately available a radiological technician capable of performing plain film and computed tomography imaging. A radiological service shall have the following additional services promptly available:

(A)   angiography; and

(B)   ultrasound.

(2)   Clinical laboratory service. A clinical laboratory service shall have:

(A)   a comprehensive blood bank or access to a community central blood bank; and

(B)   clinical laboratory services immediately available.

(3)   Surgical service. A surgical service shall have an operating suite that is available or being utilized for trauma patients and that has:

(A)   Operating staff who are promptly available unless operating on trauma patients and back-up personnel who are promptly available; and

(B)   appropriate surgical equipment and supplies as determined by the trauma program medical director.

(c)   A Level I and II trauma center shall have a basic or comprehensive emergency service which has special permits issued pursuant to Chapter 1, Division 5 of Title 22. The emergency service shall:

(1)   designate an emergency physician to be a member of the trauma team;

(2)   provide emergency medical services to adult and pediatric patients; and

(3)   have appropriate adult and pediatric equipment and supplies as approved by the director of emergency medicine in collaboration with the trauma program medical director.

(d)   In addition to the special permit licensing services, a trauma center shall have, pursuant to Section 70301 of Chapter 1, Division 5 of Title 22 of the California Code of Regulations, the following approved supplemental services:

(1)   Intensive Care Service:

(A)   the ICU shall have appropriate equipment and supplies as determined by the physician responsible for the intensive care service and the trauma program medical director;

(B)   The ICU shall have a qualified specialist promptly available to care for trauma patients in the intensive care unit. The qualified specialist may be a resident with two (2) years of training who is supervised by the staff intensivist or attending surgeon who participates in all critical decision making; and

(C)   the qualified specialist in (B) above shall be a member of the trauma team.

(2)   Burn Center. This service may be provided through a written transfer agreement with a Burn Center.

(3)   Physical Therapy Service. Physical therapy services to include personnel trained in physical therapy and equipped for acute care of the critically injured patient.

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(4) Rehabilitation Center. Rehabilitation services to include personnel trained in rehabilitation care and equipped for acute care of the critically injured patient. These services may be provided through a written transfer agreement with a rehabilitation center.

(5) Respiratory Care Service. Respiratory care services to include personnel trained in respiratory therapy and equipped for acute care of the critically injured patient.

(6) Acute hemodialysis capability.

(7) Occupational therapy service. Occupational therapy services to include personnel trained in occupational therapy and equipped for acute care of the critically injured patient.

(8) Speech therapy service. Speech therapy services to include personnel trained in speech therapy and equipped for acute care of the critically injured patient.

(9) Social Service.

(e) A trauma center shall have the following services or programs that do not require a license or special permit.

(1) Pediatric Service. In addition to the requirements in Division 5 of Title 22 of the California Code of Regulations, the pediatric service providing in-house pediatric trauma care shall have:

(A) a pediatric intensive care unit approved by the California State Department of Health Services' California Children Services (CCS); or a written transfer agreement with an approved pediatric intensive care unit. Hospitals without pediatric intensive care units shall establish and utilize written criteria for consultation and transfer of pediatric patients needing intensive care; and

(B) a multidisciplinary team to manage child abuse and neglect.

(2) Acute spinal cord injury management capability. This service may be provided through a written transfer agreement with a Rehabilitation Center;

(3) Protocol to identify potential organ donors as described in Division 7, Chapter 3.5 of the California Health and Safety Code;

(4) An outreach program, to include:

(A) capability to provide both telephone and on-site consultations with physicians in the community and outlying areas; and

(B) trauma prevention for the general public;

(5) Written interfacility transfer agreements with referring and specialty hospitals;

(6) Continuing education. Continuing education in trauma care shall be provided for:

(A) staff physicians;

(B) staff nurses;

(C) staff allied health personnel;

(D) EMS personnel; and

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        (E)   other community physicians and health care personnel.

NOTE: Authority cited: Sections 1797.107 and 1798.161, Health and Safety Code. Reference: Sections 1798.161 and 1798.165, Health and Safety Code.

§100260. Additional Level I Criteria

In addition to the above requirements, a Level I trauma center shall have:

(a)   One of the following patient volumes annually:

        (1)   a minimum of 1200 trauma program hospital admissions, or

        (2)   a minimum of 240 trauma patients per year whose Injury Severity Score (ISS) is greater than 15, or

        (3)   an average of 35 trauma patients (with an ISS score greater than 15) per trauma program surgeon per year.

(b)   Additional qualified surgical specialists or specialty availability on-call and promptly available:

        (1)   cardiothoracic; and

        (2)   pediatrics;

(c)   A surgical service that has at least the following:

        (1)   operating staff who are immediately available unless operating on trauma patients and back-up personnel who are promptly available.

        (2)   cardiopulmonary bypass equipment; and

        (3)   operating microscope.

(d)   Anesthesiology immediately available. This requirement may be fulfilled by senior residents or certified registered nurse anesthetists who are capable of assessing emergent situations in trauma patients and of providing treatment and are supervised by the staff anesthesiologist.

(e)   An intensive care unit with a qualified specialist in-house and immediately available to care for trauma patients in the intensive care unit. The qualified specialist may be a resident with two (2) years of training who is supervised by the staff intensivist or attending surgeon who participates in all critical decision making.

(f)   A Trauma research program; and

(g)   An ACGME approved surgical residency program.

NOTE: Authority cited: Sections 1797.107 and 1798.161, Health and Safety Code. Reference: Sections 1798.161 and 1798.165, Health and Safety Code.

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100261. Level I and Level II Pediatric Trauma Centers

(a)   A Level I or II pediatric trauma center is a licensed hospital which has been designated as a Level I or II pediatric trauma center by the local EMS agency. While both Level I and II pediatric trauma centers are similar, a Level I pediatric trauma center is required to have staff and resources not required of a Level II pediatric trauma center. The additional Level I requirements for pediatric trauma centers are located in Section 100262. A Level I or Level II pediatric trauma center shall have at least the following:

(1)   A pediatric trauma program medical director who is a board-certified surgeon with experience in pediatric trauma care (may also be trauma program medical director for adult trauma services), whose responsibilities include, but are not limited to, factors that affect all aspects of pediatric trauma care such as:

(A)   recommending pediatric trauma team physician privileges;

(B)   working with nursing and administration to support the needs of pediatric trauma patients;

(C)   developing pediatric trauma treatment protocols;

(D)   determining appropriate equipment and supplies for pediatric trauma care;

(E)   ensuring the development of policies and procedures to manage domestic violence and child abuse and neglect;

(F)   having authority and accountability for the pediatric trauma quality improvement peer review process;

(G)   correcting deficiencies in pediatric trauma care or excluding from trauma call those trauma team members who no longer meet standards;

(H)   coordinating pediatric trauma care with other hospital and professional services;

(I)   coordinating with local and State EMS agencies;

(J)   assisting in the coordination of the budgetary process for the trauma program; and

(K)   identifying representatives from neurosurgery, orthopedic surgery, emergency medicine, pediatrics and other appropriate disciplines to assist in identifying physicians from their disciplines who have pediatric trauma care experience and who are qualified to be members of the pediatric trauma program.

(2)   A pediatric trauma nurse coordinator/manager who is a registered nurse with qualifications (may also be trauma nurse coordinator/manager for adult trauma services) including evidence of educational preparation and clinical experience in the care of pediatric trauma patients, administrative ability, and responsibilities that include but are not limited to factors that affect all aspects of pediatric trauma care, including:

(A)   organizing services and systems necessary for the multidisciplinary approach to the care of the injured child;

(B)   coordinating day-to-day clinical process and performance improvement as it pertains to pediatric trauma nursing and ancillary personnel; and

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(C)   collaborating with the pediatric trauma program medical director in carrying out the educational, clinical, research, administrative and outreach activities of the pediatric trauma program.

(3)   A pediatric trauma service which can provide for the implementation of the requirements specified in this section and provide for coordination with the local EMS agency.

(4)   A pediatric trauma team, which is a multidisciplinary team responsible for the initial resuscitation and management of the pediatric trauma patient.

     (A)   the pediatric trauma team leader shall be a surgeon with pediatric trauma experience as defined by the trauma program medical director;

     (B)   the remainder of the team shall include physician, nursing and support personnel in sufficient numbers to evaluate, resuscitate, treat and stabilize pediatric trauma patients.

(5)   Department(s), division(s), service(s) or section(s) that include at least the following surgical specialties and which are staffed by qualified specialists with pediatric experience:

     (A)   neurologic;

     (B)   obstetric/gynecologic (may be provided through a written transfer agreement with a hospital that has a department, division, service, or section that provides this service);

     (C)   ophthalmologic;

     (D)   oral or maxillofacial or head and neck;

     (E)   orthopaedic;

     (F)   pediatric;

     (G)   plastic;

     (H)   urologic; and

     (I)   microsurgery/reimplantation (may be provided through a written transfer agreement with a hospital that has a department, division, service, or section that provides this service).

(6)   Department(s), division(s), service(s), or section(s) that include at least the following non-surgical specialities which are staffed by qualified specialists with pediatric experience:

     (A)   anesthesiology;

     (B)   cardiology;

     (C)   critical care;

     (D)   emergency medicine;

     (E)   gastroenterology;

     (F)   general pediatrics;

     (G)   hematology/oncology;

     (H)   infectious disease;

     (I)   neonatology;

     (J)   nephrology;

     (K)   neurology;

     (L)   pathology;

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(M)   psychiatry;

(N)   pulmonology;

(O)   radiology; and

(P)   rehabilitation/physical medicine. This requirement may be provided through a written agreement with a pediatric rehabilitation center.

(7)   An emergency department, division, service or section staffed with qualified specialists in emergency medicine with pediatric trauma experience, who are immediately available.

(8)   Qualified surgical specialist(s) or specialty availability, which shall be available as follows:

(A)   Pediatric surgeon, capable of evaluating and treating pediatric trauma patients shall be immediately available for trauma team activation and promptly available for consultation. This requirement may be fulfilled by:

1.   a staff pediatric surgeon with experience in pediatric trauma care; or

2.   a staff trauma surgeon with experience in pediatric trauma care; or

3.   a senior general surgical resident who has completed at least three clinical years of surgical residency training. When a senior resident is the responsible surgeon:

a.   the senior resident shall be able to provide the overall control and surgical leadership necessary for the care of the patient, including initiating surgical care; and

b.   a staff pediatric surgeon with experience in pediatric trauma care or a staff trauma surgeon with experience in pediatric trauma care shall be on-call and promptly available; and

c.   a staff pediatric surgeon or a staff surgeon with experience in pediatric trauma care shall participate in major therapeutic decisions, be advised of all pediatric trauma patient admissions and be present in the emergency department for major resuscitations and in the operating room for all trauma operative procedures.

(B)   On-call and promptly available with pediatric experience;

1.   neurologic;

2.   obstetric/gynecologic. This surgical service may be provided through a written transfer agreement;

3.   ophthalmologic;

4.   oral or maxillofacial or head and neck;

5.   orthopaedic;

6.   plastic;

7.   reimplantation/microsurgery capability. This surgical service may be provided through a written transfer agreement;

8.   urologic;

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(C) Requirements may be fulfilled by supervised senior residents as defined in Section 100245 of this Chapter who are capable of assessing emergent situations in their respective specialties. When a senior resident is the responsible surgeon:

1. The senior resident shall be able to provide the overall control and surgical leadership necessary for the care of the patient, including initiating surgical care;
2. a staff trauma surgeon or a staff surgeon with experience in trauma care shall be on-call and promptly available;
3. a staff trauma surgeon or a staff surgeon with experience in trauma care shall be advised of all trauma patient admissions, participate in major therapeutic decisions, and be present in the emergency department for major resuscitations and in the operating room for all trauma operative procedures.

(D) Available for consultation or consultation and transfer agreements for pediatric trauma patients requiring the following surgical services;

1. burns;
2. cardiothoracic; and
3. spinal cord injury.

(9) Qualified nonsurgical specialist(s) or specialty availability, which shall be available as follows:

(A) Emergency medicine, in-house and immediately available at all times. This requirement may be fulfilled by a qualified specialist in pediatric emergency medicine; or a qualified specialist in emergency medicine with pediatric experience; or a subspecialty resident in pediatric emergency medicine who has completed at least one year of subspecialty residency education in pediatric emergency medicine. In such cases, the senior resident(s) shall be capable of assessing emergency situations in trauma patients and of providing for initial resuscitation. Emergency medicine physicians who are qualified specialists in emergency medicine and are board certified in emergency medicine or pediatric emergency medicine shall not be required by the local EMS agency to complete an advanced trauma life support course. Current ATLS verification is required for all emergency medicine physicians who provide emergency trauma care and are qualified specialists in a specialty other than emergency medicine. When a senior resident is the responsible emergency physician in-house:

1. a qualified specialist in pediatric emergency medicine, or emergency medicine with pediatric experience shall be promptly available; and
2. the qualified specialist on-call shall be notified of all patients who require resuscitation, operative surgical intervention, or intensive care unit admission.

(B) Anesthesiology, Level II shall be promptly available with a mechanism established to ensure that the anesthesiologist is in the operating room when the patient arrives. This requirement may be fulfilled by a senior resident or certified registered nurse anesthetists with pediatric experience who are capable of assessing emergent situations in pediatric trauma patients and of providing any indicated treatment and are supervised by the staff

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anesthesiologist. In such cases, the staff anesthesiologist with pediatric experience on-call shall be advised about the patient, be promptly available at all times, and be present for all operations.

(C)   Radiology, promptly available; and

(D)   Available for consultation or provided through transfer agreement, qualified specialists with pediatric experience:

    a.   adolescent medicine;

    b.   child development;

    c.   genetics/dysmorphology;

    d.   neuroradiology;

    e.   obstetrics;

    f.   pediatric allergy and immunology;

    g.   pediatric dentistry;

    h.   pediatric endocrinology;

    i.   pediatric pulmonology; and

    j.   rehabilitation/physical medicine.

(E)   Pediatric critical care, in-house and immediately available. The in-house requirement may be fulfilled by:

    1.   a qualified specialist in pediatric critical care medicine; or

    2.   a qualified specialist in anesthesiology with experience in pediatric critical care;

    3.   a qualified surgeon with expertise in pediatric critical care; or

    4.   a physician who has completed at least two years of residency in pediatrics. When a senior resident is the responsible pediatric critical care physician then:

        a.   a qualified specialist in pediatric critical care medicine, or a qualified specialist in anesthesiology with experience in pediatric critical care, shall be on-call and promptly available; and;

        b.   the qualified specialist on-call shall be advised about all patients who may require admission to the pediatric intensive care unit and shall participate in all major therapeutic decisions and interventions;

(F)   Qualified specialists with pediatric experience shall be on the hospital staff and available for consultation:

1.   general pediatrics;

2.   mental health;

3.   neonatology;

4.   nephrology;

5.   pathology;

6.   pediatric cardiology;

7.   pediatric gastroenterology;

8.   pediatric hematology/oncology;

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9.   pediatric infectious disease;

10.   pediatric neurology; and

11.   pediatric radiology.

(b)   In addition to licensure requirements, pediatric trauma centers shall have the following service capabilities:

(1)   Radiological service. The radiological service shall have in-house and immediately available a radiological technician capable of performing plain film and computed tomography imaging. A radiological service shall have the following additional services promptly available for children:

(A)   angiography; and

(B)   ultrasound.

(2)   Clinical laboratory service. A clinical laboratory service shall have:

(A)   a comprehensive blood bank or access to a community central blood bank; and

(B)   clinical laboratory services immediately available with micro sampling capability.

(3)   Surgical service. A surgical service shall have an operating suite that is available or being utilized for trauma patients and that has:

(A)   Operating staff who are promptly available unless operating on a trauma patient and back up personnel who are promptly available; and

(B)   appropriate surgical equipment and supplies as determined by the pediatric trauma program medical director.

(4)   Nursing services that are staffed by qualified licensed nurses with education, experience, and demonstrated clinical competence in the care of critically ill and injured children.

(c)   A Level I and II pediatric trauma center shall have a basic or comprehensive emergency service which have special permits issued pursuant to Chapter 1, Division 5 of Title 22. The emergency service shall:

(1)   designate an emergency physician to be a member of the pediatric trauma team;

(2)   provide emergency medical services to pediatric patients; and

(3)   have appropriate pediatric equipment and supplies as approved by the director of emergency medicine in collaboration with the trauma program medical director.

(d)   In addition to the special permit licensing services, a pediatric trauma center shall have, pursuant to Section 70301 of Chapter 1, Division 5 of Title 22 of the California Code of Regulations, the following approved supplemental services:

(1)   Burn Center. This service may be provided through a written transfer agreement with a Burn Center;

(2)   Physical Therapy Service. Physical therapy services to include personnel trained in pediatric physical therapy and equipped for acute care of the critically injured child;

(3)   Rehabilitation Center. Rehabilitation services to include personnel trained in rehabilitation care and equipped for acute care of the critically injured patient. These services may be provided through a written transfer agreement with a rehabilitation center;

(4)   Respiratory Care Service. Respiratory care services to include personnel trained in respiratory

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therapy and equipped for acute care of the critically injured patient;

(5) Acute hemodialysis capability;

(6) Occupational therapy service. Occupational therapy services to include personnel trained in pediatric occupational therapy and equipped for acute care of the critically injured child;

(7) Speech therapy service. Speech therapy services to include personnel trained in pediatric speech therapy and equipped for acute care of the critically injured child; and

(8) Social Service.

(e) A trauma center shall have the following services or programs that do not require a license or special permit.

    (1) A Pediatric Intensive Care Unit (PICU) approved by the California State Department of Health Services California Children Services (CCS).

        (A) The PICU shall have appropriate equipment and supplies as determined by the physician responsible for the pediatric intensive care service and the pediatric trauma program medical director;

        (B) the pediatric intensive care specialist shall be promptly available to care for trauma patients in the intensive care unit; and

        (C) the qualified specialist in (B) above shall be a member of the trauma team.

    (2) Acute spinal cord injury management capability. This service may be provided through a written transfer agreement with a Rehabilitation Center;

    (3) Protocol to identify potential organ donors as described in Division 7, Chapter 3.5 of the California Health and Safety Code;

    (4) An outreach program, to include:

        (A) capability to provide both telephone and on-site consultations with physicians in the community and outlying areas;

        (B) trauma prevention for the general public;

        (C) public education and illness/injury prevention education.

    (5) written interfacility transfer agreements with referring and specialty hospitals; and

    (6) continuing education. Continuing education in pediatric trauma care shall be provided for:

        (A) staff physicians;

        (B) staff nurses;

        (C) staff allied health personnel;

        (D) EMS personnel; and

        (E) other community physicians and health care personnel.

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(7)   In addition to special permit licensing services, a pediatric trauma center shall have:
         (A)   outreach and injury prevention programs specifically related to pediatric trauma and injury prevention;
         (B)   a suspected child abuse and neglect team (SCAN);
         (C)   an aeromedical transport plan with designated landing site; and
         (D)   Child Life program.

NOTE: Authority cited: Sections 1797.107 and 1798.161, Health and Safety Code. Reference: Sections 1798.161 and 1798.165, Health and Safety Code.

100262. Additional Level I Pediatric Trauma Criteria

In addition to the above requirements, a Level I pediatric trauma center shall have:

(a)   A pediatric trauma program medical director who is a board-certified pediatric surgeon, whose responsibilities include, but are not limited to, factors that affect all aspects of pediatric trauma care.

(b)   Additional qualified pediatric surgical specialists or specialty availability on-call and promptly available:
         (1)   cardiothoracic;
         (2)   pediatric neurologic;
         (3)   pediatric ophthalmologic;
         (4)   pediatric oral or maxillofacial or head and neck; and
         (5)   pediatric orthopaedic,

(c)   A surgical service that has at least the following:
         (1)   operating staff who are immediately available unless operating on trauma patients and back-up personnel who are promptly available.
         (2)   cardiopulmonary bypass equipment; and
         (3)   operating microscope.

(d)   Additional qualified pediatric non-surgical specialists or specialty availability on-call and promptly available:
         (1)   pediatric anesthesiology;
         (2)   pediatric emergency medicine;
         (3)   pediatric gastroenterology;
         (4)   pediatric infectious disease;
         (5)   pediatric nephrology;
         (6)   pediatric neurology;
         (7)   pediatric pulmonology; and
         (8)   pediatric radiology.

(e)   the qualified pediatric PICU specialist shall be immediately available, advised about all patients who may require admission to the PICU, and shall participate in all major therapeutic decisions and interventions;

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(f)   Anesthesiology shall be immediately available. This requirement may be fulfilled by a senior resident or certified registered nurse anesthetists who are capable of assessing emergent situations in trauma patients and providing treatment and are supervised by the staff anesthesiologist.

(g)   Pediatric trauma research program.

(h)   Maintain an education rotation with an ACGME approved and affiliated surgical residency program.

NOTE: Authority cited: Sections 1797.107 and 1798.161, Health and Safety Code. Reference: Sections 1798.161 and 1798.165, Health and Safety Code.

§ 100263. Level III Trauma Centers

A Level III trauma center is a licensed hospital which has been designated as a Level III trauma center by the local EMS agency. A Level III trauma center shall include equipment and resources necessary for initial stabilization and personnel knowledgeable in the treatment of adult and pediatric trauma. A Level III trauma center shall have at least the following:

(a)   A trauma program medical director who is a qualified surgical specialist, whose responsibilities include, but are not limited to, factors that affect all aspects of trauma care such as:
   (1)   recommending trauma team physician privileges;
   (2)   working with nursing administration to support the nursing needs of trauma patients;
   (3)   developing trauma treatment protocols;
   (4)   having authority and accountability for the quality improvement peer review process;
   (5)   correcting deficiencies in trauma care or excluding from trauma call those trauma team members who no longer meet the standards of the quality improvement program; and
   (6)   assisting in the coordination of budgetary process for the trauma program.

(b)   A trauma nurse coordinator/manager who is a registered nurse with qualifications including evidence of educational preparation and clinical experience in the care of adult and/or pediatric trauma patients, administrative ability, and responsibilities that include, but are not limited to:
   (1)   organizing services and systems necessary for the multidisciplinary approach to the care of the injured patient;
   (2)   coordinating day-to-day clinical process and performance improvement as pertains to nursing and ancillary personnel, and
   (3)   collaborating with the trauma program medical director in carrying out the educational, clinical, research, administrative and outreach activities of the trauma program.

(c)   A trauma service which can provide for the implementation of the requirements specified in this Section and provide for coordination with the local EMS agency.

(d)   The capability of providing prompt assessment, resuscitation and stabilization to trauma patients.

(e)   The ability to provide treatment or arrange for transportation to a higher level trauma center as appropriate.

(f)   An emergency department, division, service, or section staffed so that trauma patients are assured of immediate and appropriate initial care.

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(g) Intensive Care Service:

    (1) the ICU shall have appropriate equipment and supplies as determined by the physician responsible for the intensive care service and the trauma program medical director;

    (2) the ICU shall have a qualified specialist promptly available to care for trauma patients in the intensive care unit. The qualified specialist may be a resident with two (2) years of training who is supervised by the staff intensivist or attending surgeon who participates in all critical decision making; and

    (3) the qualified specialist in (2) above shall be a member of the trauma team;

(h) A trauma team, which will be a multidisciplinary team responsible for the initial resuscitation and management of the trauma patient.

(i) Qualified surgical specialist(s) who shall be promptly available:

    (1) general;

    (2) orthopedic; and

    (3) neurosurgery (can be provided through a transfer agreement)

(j) Qualified non-surgical specialist(s) or specialty availability, which shall be available as follows:

    (1) Emergency medicine, in-house and immediately available; and

    (2) Anesthesiology, on-call and promptly available with a mechanism established to ensure that the anesthesiologist is in the operating room when the patient arrives. This requirement may be fulfilled by senior residents or certified registered nurse anesthetists who are capable of assessing emergent situations in trauma patients and of providing any indicated emergent anesthesia treatment and are supervised by the staff anesthesiologist. In such cases, the staff anesthesiologist on-call shall be advised about the patient, be promptly available at all times, and be present for all operations.

    (3) The following services shall be in-house or may be provided through a written transfer agreement:

        (A) Burn care.

        (B) Pediatric care.

        (C) Rehabilitation services.

(k) The following service capabilities:

    (1) Radiological service. The radiological service shall have a radiological technician promptly available.

    (2) Clinical laboratory service. A clinical laboratory service shall have:

        (A) a comprehensive blood bank or access to a community central blood bank; and

        (B) clinical laboratory services promptly available.

    (3) Surgical service. A surgical service shall have an operating suite that is available or being utilized for trauma patients and that has:

        (A) Operating staff who are promptly available; and

        (B) appropriate surgical equipment and supplies requirements which have been approved by the local EMS agency.

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(l)   Written transfer agreements with Level I or II trauma centers, Level I or II pediatric trauma centers, or other specialty care centers, for the immediate transfer of those patients for whom the most appropriate medical care requires additional resources.

(m)   An outreach program, to include:
    (1)   capability to provide both telephone and on-site consultations with physicians in the community and outlying areas; and
    (2)   trauma prevention for the general public.

(n)   Continuing education. Continuing education in trauma care, shall be provided for:
    (1)   staff physicians;
    (2)   staff nurses;
    (3)   staff allied health personnel;
    (4)   EMS personnel; and
    (5)   other community physicians and health care personnel.

NOTE: Authority cited: Sections 1797.107 and 1798.161, Health and Safety Code.
Reference: Sections 1798.161 and 1798.165, Health and Safety Code.

§ 100264. Level IV Trauma Center

A Level IV trauma center is a licensed hospital which has been designated as a Level IV trauma center by the local EMS agency. A Level IV trauma center shall include equipment and resources necessary for initial stabilization and personnel knowledgeable in the treatment of adult and pediatric trauma. A Level IV trauma center shall have at least the following:

(a)   A trauma program medical director who is a qualified specialist whose responsibilities include, but are not limited to, factors that affect all aspects of trauma care, including pediatric trauma care, such as:
    (1)   recommending trauma team physician privileges;
    (2)   working with nursing administration to support the nursing needs of trauma patients;
    (3)   developing treatment protocols;
    (4)   having authority and accountability for the quality improvement peer review process;
    (5)   correcting deficiencies in trauma care or excluding from trauma call those trauma team members who no longer meet the standards of the quality improvement program; and
    (6)   assisting in the coordination of the budgetary process for the trauma program.

(b)   A trauma nurse coordinator/manager who is a registered nurse with qualifications including evidence of educational preparation and clinical experience in the care of adult and/or pediatric trauma patients, administrative ability, and responsibilities that include, but are not limited to:
    (1)   organizing services and systems necessary for the multidisciplinary approach to the care of the injured patient;
    (2)   coordinating day-to-day clinical process and performance improvement as it pertains to nursing and ancillary personnel; and
    (3)   collaborating with the trauma program medical director in carrying out the educational, clinical, research, administrative and outreach activities of the trauma program.

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(c)   A trauma service which can provide for the implementation of the requirements specified in this Section and provide for coordination with the local EMS agency.

(d)   The capability of providing prompt assessment, resuscitation and stabilization to trauma patients.

(e)   The ability to provide treatment or arrange transportation to higher level trauma center as appropriate.

(f)   An emergency department, division, service, or section staffed so that trauma patients are assured of immediate and appropriate initial care.

(g)   A trauma team, which will be a multidisciplinary team responsible for the initial resuscitation and management of the trauma patient.

(h)   The following service capabilities:

(1)   Radiological service. The radiological service shall have a radiological technician promptly available.

(2)   Clinical laboratory service. A clinical laboratory service shall have:

(A)   a comprehensive blood bank or access to a community central blood bank; and

(B)   clinical laboratory services promptly available.

(i)   Written transfer agreements with Level I, II or III trauma centers, Level I or II pediatric trauma centers, or other specialty care centers, for the immediate transfer of those patients for whom the most appropriate medical care requires additional resources.

(j)   An outreach program, to include:

(1)   capability to provide both telephone and on-site consultations with physicians in the community and outlying areas; and

(2)   trauma prevention for the general public.

(k)   Continuing education. Continuing education in trauma care, shall be provided for:

(1)   staff physicians;

(2)   staff nurses;

(3)   staff allied health personnel;

(4)   EMS personnel; and

(5)   other community physicians and health care personnel.

NOTE: Authority cited: Sections 1797.107 and 1798.161, Health and Safety Code. Reference: Sections 1798.161 and 1798.165, Health and Safety Code.

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Article 4. Quality Improvement

100265. Quality Improvement

Trauma centers of all levels shall have a quality improvement process to include structure, process, and outcome evaluations which focus on improvement efforts to identify root causes of problems, intervene to reduce or eliminate these causes, and take steps to correct the process. In addition the process shall include:

A detailed audit of all trauma-related deaths, major complications and transfers (including interfacility transfer);

(a)   A multidisciplinary trauma peer review committee that includes all members of the trauma team;

(b)   Participation in the trauma system data management system;

(c)   Participation in the local EMS agency trauma evaluation committee; and

(d)   Each trauma center shall have a written system in place for patients, parents of minor children who are patients, legal guardian(s) of children who are patients, and/or primary caretaker(s) of children who are patients to provide input and feedback to hospital staff regarding the care provided to the child.

(e)   Following of applicable provisions of Evidence Code Section 1157.7 to ensure confidentiality.

NOTE: Authority cited: Sections 1797.107 and 1798.161, Health and Safety Code. Reference: Sections 1798.161 Health and Safety Code.

Article 5. Transfer of Trauma Patients

100266. Interfacility Transfer of Trauma Patients

(a)   Patients may be transferred between and from trauma centers providing that:

    (1)   any transfer shall be, as determined by the trauma center surgeon of record, medically prudent; and

    (2)   in accordance with local EMS agency interfacility transfer policies.

(b)   Hospitals shall have written transfer agreements with trauma centers. Hospitals shall develop written criteria for consultation and transfer of patients needing a higher level of care.

(c)   Hospitals which have repatriated trauma patients from a designated trauma center shall provide the information required by the system trauma registry, as specified by local EMS agency policies, to the transferring trauma center for inclusion in the system trauma registry.

(d)   Hospitals receiving trauma patients shall participate in system and trauma center quality improvement activities for those trauma patients who have been transferred.

NOTE: Authority cited: Sections 1797.107 and 1798.161, Health and Safety Code. Reference: Sections 1798.160 and 1798.161, Health and Safety Code.

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October 16, 2019

TO: CHA EMS/T Committee

FROM: BJ Bartleson, RN, MS, NEA-BC, Vice President Nursing & Clinical Services
             Rose Colangelo, MSN, RN, CEN, Scripps Memorial Hospital

SUBJECT: Behavioral Health Odds and Ends!

SUMMARY

1. This year at the CHA Behavioral Health Care Symposium, we've been asked to present a panel presentation on how to improve the transition of behavioral health patients from the hospital ED to a behavioral health setting. This in part stemmed from a previous CHA EMS/T meeting where you described barriers to making this a seamless experience. Ms. Colangelo will be moderating, "Improving the Care and Throughput of Psychiatric Patients from the Emergency Department" with two hospital ED/Behavioral Health receiving center partners, identifying barriers and solutions to making the transition seamless

   Rose Colangelo – Scripps Health
   Marlene Nadler-Moodie – Scripps Health
   Elissa Berthiaume – Scripps Health
   Cheryl Heaney-Ordez – Dignity Health
   Paul Rains – Scripps Health

2. The CHA Behavioral Health Care Symposium will take place Dec 9th and 10th at Riverside Convention Center. Register

3. California Public Mental Health Services and Facility Types are difficult to understand. Harbage Consulting has put together a summary with the site type, coverage and services description, licensing and certification roles and requirements, role in the Lanterman-Petris-Short Act, and key limitations. (See attached- add the document)

4. LPS Conservatorship and ED Departments - We had an inquiry from an attorney who represents family/parents of adult children in need of mental health evaluation and treatment. Many of the clients are private LPS conservators who have family members (conservatees) in placements ranging from their homes to locked facilities. When the conservatee's mental condition deteriorates and locked inpatient care is needed, there is a court order in place for locked placement and involuntary medication, as approved by the conservators. Oftentimes the conservatees must be transported by law enforcement due to safety issues, and they are taken to the nearest EDs. This attorney reports that multiple problems have occurred, for example, 1) the ED staff not understanding or caring to follow the court ordered conservatorship letters, 2) the ED staff believing that only a 5150 detention applies and that the ER may discharge the conservatee as no longer meeting criteria (without any input by the conservators), 3) that court-

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ordered and conservator requested antipsychotic medications cannot be given in the ED in a non-psych unit ED, and, 4) the ED may discharge or detain for a week or more without communication with the conservator.

DISCUSSION

1. How do hospital EDs feel they are doing relative to LPS conservatorships and care of the behavioral health patients?
2. Do hospitals need education in this area?
3. Are there barriers to providing the proper care to these patients?

ACTION REQUESTED

➢ Information and feedback requested

Attachments: Emergency Department Boarding of Behavioral Health Patients, CRS, 7-19-18
Hospital-Based Emergency Departments: Background and Policy Considerations, CRS, 12-8-14
California Public Mental Health Service Sites and Facility Types: A Summary, Harbage Consulting, 8-27-19

BJB:br

July 19, 2018

Emergency Department Boarding of Behavioral Health Patients

This In Focus outlines emergency department (ED) boarding of behavioral health (BH) patients. Behavioral health refers to patients with psychiatric and/or substance use disorders. Boarding refers to the holding of inpatients in an ED after an admission or transfer decision has been made. ED boarding, as it contributes to ED crowding, has been a long-standing area of concern for Congress, payors, and health care providers (see CRS Report R43812, *Hospital-Based Emergency Departments: Background and Policy Considerations*). This In Focus highlights areas for research and discusses policy options Congress may consider to reduce BH patient boarding.

In general, patient boarding can last from hours to multiple days. Data show that BH patient boarding times are longer than non-BH patient boarding times. For example, research examining one U.S. hospital and published in the journal *Emergency Medicine International* found that the average length of ED stay was more than three times longer for BH patients compared with other patient types (Nicks and Manthey 2012). BH boarding typically occurs because there are too few BH providers available to diagnose and treat a patient or because, after an assessment has been made, an inpatient psychiatric/substance abuse disorder treatment bed is not available. As a result, BH patients are boarded in the ED, which contributes to a backlog in the treatment of other ED patients. In the same *Emergency Medicine International* study, the researchers found that each boarded BH patient prevented an additional two patients from being seen.

Defining the Problem

One barrier to developing and implementing effective strategies to reduce BH boarding is the lack of an accepted definition of boarding, for either BH or non-BH patients. Moreover, comprehensive data on how often boarding occurs are lacking. Some states have attempted to reduce boarding (e.g., in response to the Washington State Supreme Court case *In re the Detention of D.W. et al.*, 2014), but they have found little success without the necessary baseline data to evaluate change and enforce oversight and accountability.

Expert groups use different definitions of boarding. For example, The Joint Commission—the organization that accredits hospitals—developed new standards to address "Patient Flow in the Emergency Department." During the development of those standards, The Joint Commission found that two federal agencies (the Centers for Medicare & Medicaid Services and the Government Accountability Office) and the major professional organization for emergency physicians all defined boarding differently (The Joint Commission 2011). For example, one definition of

boarding was a length of stay of four hours after an admission decision, while another definition of boarding was "for a minimum time" after an admission decision was made. Researchers also use different definitions of boarding in peer-reviewed research, which limits study comparability and the ability to assess the extent of the issue.

BH Boarding and ED Crowding

ED crowding, of which boarding is one cause, reflects systemic dysfunction between emergency services, inpatient services, and community health resources. One cause of crowding is that EDs, unlike other health care providers, must treat all patients regardless of their ability to pay, in accordance with the federal Emergency Medical Treatment and Active Labor Act (EMTALA). As such, EDs are safety net providers and may be the only source of care for uninsured or underinsured patients. These patients along with other patients—including BH patients—who seek care in the ED for emergent conditions may cause ED crowding.

Figure 1. Behavioral Health Boarding and Emergency Department (ED) Flow
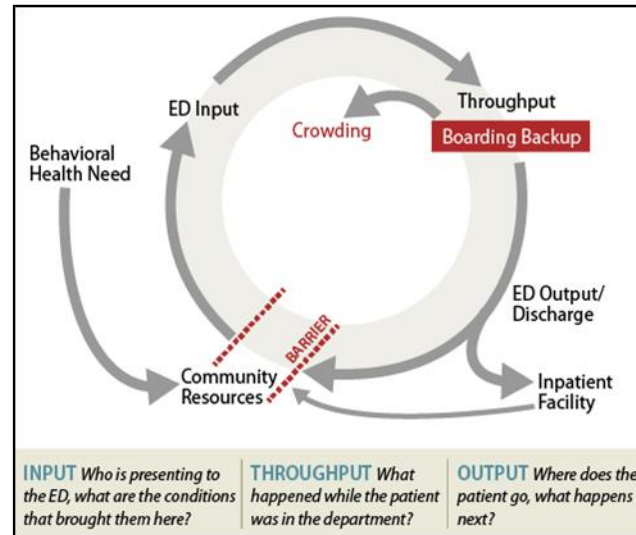
Source: Congressional Research Service.

The problem of ED crowding can be divided into three intricately related components: input, throughput, and output (see **Figure 1**). BH boarding, a throughput component, results from inefficiencies in each of these three components. The model presented in **Figure 1** begins with an unmet BH need in the community, which prevents appropriate treatment in an outpatient setting. If there is a barrier to care in the community, the need may become an ED input.

Boarding may occur because a patient cannot be discharged from the ED if there is no available and appropriate inpatient bed. Boarding BH patients is resource-intensive, because some BH patients require constant staff monitoring and some may receive specialized psychiatric care. The staff monitoring, in particular, diverts ED resources away from other patients and delays the flow of care in the throughput component, preventing other patients from receiving appropriate and timely care.

In cases where patients are discharged, the patient returns to the community for outpatient follow-up. If the community lacks BH treatment options to appropriately manage the patient's condition, the patient may need to return to the ED, which can contribute to crowding again. ED use for BH patients can be cyclical. However, one way to break the cycle is to provide access to appropriate outpatient follow up and treatment in the community (which may prevent future BH boarding), or providing treatment in inpatient settings to shift inappropriate behavioral health treatment from EDs to more appropriate settings.

Consequences of BH Boarding

BH patients may become more agitated or aggressive in overcrowded, noisy, and bustling EDs as compared with designated psychiatric or substance use treatment areas. This behavior may be risky for both patients and staff. A literature review by the Department of Health and Human Services Office of the Assistant Secretary for Planning and Evaluation (ASPE) found that boarding for psychiatric patients was associated with worse outcomes for the boarded patients and increased hospital costs (ASPE 2008). A more recent study in the journal Academic Emergency Medicine found that the length of ED boarding was associated with both increased hospital mortality and increased length of stay for both physical and BH patients (Singer et al., 2011). However, as mentioned above, existing studies lack a standard definition of boarding, which makes it difficult to definitively quantify the effects of BH boarding on patient outcomes or financial costs.

Policy Options

Table 1 lists some policy options that Congress may consider to reduce boarding of BH patients, in terms of the three components presented in **Figure 1**: input, throughput, and output. BH boarding can be improved by reducing input, making throughput more efficient, and increasing output. Input and output are related to larger aspects of the health care financing and delivery system, which may make them more amenable to federal and/or state policy interventions. In contrast, much of throughput is determined by hospital policy and procedures. Still, the federal government, primarily in its role as a payor for hospital health services, may be able to motivate hospitals to adopt policies to reduce BH boarding by addressing input, output, or possibly throughput.

Table 1. Policy Options to Reduce Behavioral Health (BH) Boarding in Emergency Departments (ED)

Reduce ED Input

- Increase efforts to manage mental health conditions and substance abuse disorders (e.g., reduce access to illicit drugs).
- Increase access to BH treatment in outpatient settings (e.g., community health centers).
- Incentivize or fund programs that reduce the likelihood that first responders will bring BH patients to the ED (e.g., crisis intervention teams that can clear patients medically outside of the ED or de-escalation training for medical and law enforcement personnel).
- Permit reimbursement for ambulances that transport non-emergency BH patients to alternate destinations (e.g., BH provider offices).

Improve Throughput Efficiency

- Incentivize hospitals to have specific staff, triage, and locations in the hospital for BH ED patients.
- Incentivize resource-sharing between local hospitals (e.g., use telehealth for small facilities to share BH providers).
- Develop and require hospitals to report standardized data on BH patient boarding.

Increase and Maintain Output

- Increase access to inpatient BH treatment options (e.g., number of inpatient psychiatric beds) or reimbursement options available for BH treatment in Medicaid (see CRS In Focus IF10222, *Medicaid's Institutions for Mental Disease (IMD) Exclusion* and CRS In Focus IF10870, *Psychiatric Institutionalization and Deinstitutionalization*).
- Incentivize timely and effective hospital bed monitoring system and room turnover in ED and inpatient wards.
- Incentivize hospitals to develop and implement discharge processes and outpatient management to encourage hospitals to better connect BH patients with outpatient resources.

Challenges and Barriers

Some of the policy options in Table 1 are being pursued as part of recent efforts to address the opioid epidemic (e.g., prevention of substance use disorders). However, other options may be more challenging to implement. For example, some policy options (e.g., permitting reimbursements for ambulances to transport patients to alternative destinations) would require new or additional funding streams, which can be costly. Others—such as reporting data—involve more indirect mechanisms to achieve outcomes, and may not be a sufficiently direct policy lever to effect change. In addition, some options may be more appropriately addressed by state and local governments (e.g., states may operate psychiatric hospitals).

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Hospital-Based Emergency Departments: Background and Policy Considerations

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December 8, 2014

Summary

Hospital-based Emergency Departments (EDs) are required to stabilize patients with emergent conditions regardless of the patients' ability to pay as a requirement of the Emergency Medical Treatment and Active Labor Act (EMTALA). Given this requirement, EDs play an important part in the health care safety net by serving the uninsured, the underserved, and those enrolled in Medicaid. Open 24 hours a day, EDs provide emergency care, urgent care, primary care, and behavioral health care services in communities where these services are unavailable or unavailable after hours. EDs also play a key role during emergencies, such as natural disasters.

Some EDs are challenged to provide effective care. For example, EDs provide a disproportionate amount of health care to the U.S. population, in general, and to the safety net population, in particular. Specifically, while 4% of all U.S. physicians are ED physicians, they are the treating physicians in 28% of all acute care visits. Some EDs face financial challenges. ED services are costly both to payers, because services provided in an ED are more costly than those provided in community-based settings, and to hospitals, because operating an ED has high fixed costs and because if patients enter with an emergent condition, hospitals are required by EMTALA to stabilize the patient regardless of the patient's ability to pay.

As providers of uncompensated safety net care, some EDs are crowded, in part because hospitals lack staff or inpatient beds to transfer patients from the ED, and in part because of the large number of patients who seek care in the ED because care is unavailable or inaccessible in the community. Crowded conditions have resulted in some patients experiencing long wait times, which, at times, delays access to care and results in worse health outcomes. In addition, hospitals, particularly those in urban areas, are regularly diverting ambulances because they are too crowded to accept new patients.

This report describes EDs and the role they play in the health care delivery system. It also discusses the federal role and interest in supporting emergency care. The federal government is the largest payer for overall health care, through the Medicare and Medicaid programs. Also, the federal government has made investments in emergency preparedness, programs and efforts that support the health care safety net, and health care access in general. Given these investments, Congress may be interested in EDs because a well-functioning ED system is necessary to provide surge capacity in an emergency. The function of the ED system, in turn, reflects its surrounding community's access to health care services; therefore, understanding the use of EDs, evaluating whether such use is appropriate, and examining strategies employed to reduce inappropriate use may all be of policy interest.

This report discusses three commonly identified and interrelated challenges that EDs face: (1) crowding in EDs, (2) providing repeat care to a subset of patients who are frequent users, and (3) providing care to a large population who have behavioral health conditions when an ED lacks the appropriate resources to provide such treatment. Finally, this report concludes with some policy options that Congress might consider to improve ED functioning and reduce payer costs. This report focuses on EDs that are available to the general population; as such, it does not include EDs operated by the Departments of Defense or Veterans Affairs or those operated by the Indian Health Service.

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Introduction

Emergency departments (EDs) play an important public health role during emergencies and on a regular basis by providing access to emergency care to all patients regardless of their ability to pay (see **Text Box 1**).[1] Although the original intent of EDs was to provide emergency care, this role has expanded, as patients often seek care in an ED when services are unavailable or inaccessible in the community. Federal law guarantees access to emergency services under the Emergency Medical Treatment and Active Labor Act (EMTALA), which requires that hospitals screen all patients who enter their ED and stabilize those with emergent conditions regardless of the patients' insurance status. Hospitals that fail to do so can be excluded from the Medicare program.[2] As a consequence of EMTALA, hospitals with EDs must provide emergency care, which may be un- or under compensated (i.e., the hospital may not recover any or all of the cost of treatment). Specifically, more than 40% of all ED visits are for individuals who are uninsured or enrolled in Medicaid, two types of patients where hospitals provide care that is un- or under compensated.[3]

Text Box 1: Emergency Department
(as defined in the Emergency Medical Treatment and Active Labor Act or EMTALA)

... any department or facility of the hospital, regardless of whether it is located on or off the main hospital campus, that meets at least one of the following requirements: (1) licensed by the state in which it is located as an emergency room or department (2) advertised to the public as treating emergent conditions without prior appointment, (3) in the previous calendar year, at least one-third of the outpatient visits were for the treatment of emergency medical conditions on an urgent basis without requiring an appointment.

Source: Adapted from 42 C.F.R. §489.24 (b)

EDs provide a disproportionate amount of health care to the U.S. population. Specifically, the 4% of physicians who staff EDs are the treating physician in 28% of all acute care visits,[4] and these visits disproportionately involve patients with more dangerous or worrisome symptoms, such as chest pain, respiratory complaints, and abdominal pain.[5] From 1992 to 2012, the number of ED visits grew faster than the U.S. population. This occurred for a number of reasons, including the immediate access to diagnostic resources that EDs provide and community-level declines in access to primary or behavioral health care, which have occurred at the same time as population-level increases in rates of chronic conditions (see **Table 1**).[6]

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[1] Marcus Ong Eng Hock et al., "Should Emergency Departments Be Society's Health Safety Net?" *Journal of Public Health Policy*, vol. 26, no. 3 (2005), pp. 269-281.

[2] CRS Report RS22738, *EMTALA: Access to Emergency Medical Care*. Note that hospitals bill patients and attempt to recover the cost of treatment, and hospitals are not required to provide care to patients who present to EDs with conditions that do not require immediate treatment (i.e., non-emergent conditions).

[3] Agency for Health Care Research and Quality, "Overview of Emergency Department Visits in the United States, 2011," Statistical Brief #174, 2014.

[4] Acute care visits are those for short-term treatment for an injury, illness, or an urgent medical condition. By contrast, 20% of acute care visits were handled by a specialty physician, who account for 60% of the physician workforce. Stephen R. Pitts et al., "Where Americans Get Acute Care: Increasingly, It's Not at Their Doctor's Office." *Health Affairs*, vol. 29, no. 9 (September 2010), pp. 1620-1629.

[5] Ibid.

[6] Agency for Health Care Research and Quality, "Overview of Emergency Department Visits in the United States, 2011," Statistical Brief #174, 2014.

Table 1. Emergency Department Visits

Year	ED Visits (millions)	ED Visits (per 1,000 population)
1992	90.8	356
2002	110.0	382
2012	133.2	424

Source: American Hospital Association, TrendWatch Chartbook 2014, Table 3.3 Emergency Department Visits, Emergency Department Visits per 1,000 and Number of Emergency Departments, 1992-2012, http://www.aha.org/research/reports/tw/chartbook/index.shtml.

EDs also provide a significant amount of care to safety net populations. EDs handle two-thirds of acute care visits for the uninsured and one half of the acute care visits of people enrolled in Medicaid or the State Children's Health Insurance Program (CHIP).[7] In some cases, EDs are the appropriate site for care, but, in other cases, non-emergent patients seek care in an ED because they lack an alternative source of care. This occurs for a number of reasons, including the patients' insurance status, their relationship to a regular provider, and their ability to secure a timely appointment with that provider.[8] The use of EDs to provide nonemergency care can be costly to payers because services provided in an ED are generally more expensive than those provided in community-based settings. ED services are more expensive, because, for example, EDs have higher fixed costs (in terms of space and staffing), its physicians may order additional tests or laboratory work, and because hospital charges are generally higher than those charged by physician's offices.[9]

As a result of increased ED use and declining financial support for providing this volume of care, the Institute of Medicine, in a series of three reports published in 2006, declared that ED care was "at a breaking point."[10] Subsequent work by the Government Accountability Office (GAO) confirmed that these challenges persisted and found that EDs were crowded, that they diverted ambulances because they were unable to accept new patients, and that patients often experienced long waits for care.[11] Although recent changes to health care delivery and financing (e.g., the growth of retail clinics[12] and increases in the number of people who are insured because of the

[7] Stephen R. Pitts et al., "Where Americans Get Acute Care: Increasingly, It's Not at Their Doctor's Office." *Health Affairs*, vol. 29, no. 9 (September 2010), pp. 1620-1629.

[8] Ibid. For information about access to care for Medicaid beneficiaries, see Department of Health and Human Services, Office of Inspector General, *State Standards for Access to Care in Medicaid Managed Care*, Washington, DC, September 2014, http://oig.hhs.gov/oei/reports/oei-02-11-00320.pdf.

[9] Studies have found that ED services can be three to five times more costly than similar services provided in a community-based setting. For discussion, see R.M. Coffey, Emergency Department Use for Mental Health and Substance Use Disorders, U.S. Agency for Healthcare Research and Quality (AHRQ), Rockville, MD, August 23, 2010, http://www.hcup-us.ahrq.gov/reports/ED_Multivar_Rpt_Revision_Final072010.pdf, p. 3.

[10] Institute of Medicine of the National Academies, *Hospital-Based Emergency Care: At the Breaking Point* (Washington, DC: National Academies Press, 2006); Institute of Medicine of the National Academies, *Emergency Medical Services: At the Crossroads* (Washington, DC: National Academies Press, 2006); and Institute of Medicine of the National Academies, *Hospital-Based Emergency Care for Children: Growing Pains* (Washington, DC: National Academies Press, 2006).

[11] U.S. Government Accountability Office, *Hospital Emergency Departments: Crowding Continues to Occur, and Some Patients Wait Longer than Recommended Time Frames*, 09-347, April 2009, http://www.gao.gov/assets/290/289048.pdf; hereinafter, GAO-09-347.

[12] It is not yet clear whether the growth of retail clinics and urgent care centers will alleviate crowding and thereby enhance ED function. See "New Types of Health Care Facilities May Change the EDs' Role" in this report.

Patient Protection and Affordable Care Act)[13] may improve ED operations for some hospitals, EDs—particularly those in urban area—remain crowded.[14] It is also possible that some policy changes may have unintended consequences increasing ED use or further straining ED finances.[15]

The federal government is interested in the availability of ED services and their appropriate use for several reasons, including its role as a payer of health care services, its role in supporting emergency preparedness, and its role in supporting the health care safety net. The federal government is the largest health care payer, through the Medicare and Medicaid programs,[16] and as such, the availability, use, and costs of ED services may be of interest to policy makers.[17] Also, the federal government has made investments in emergency preparedness,[18] programs and efforts that support the health care safety net, and efforts that support health care access in general.[19] Given these investments, Congress may be interested in EDs because a well-functioning ED system is necessary to provide surge capacity in an emergency. The function of the ED system, in turn, often reflects its surrounding community's access to health care services; therefore, understanding the use of EDs, evaluating whether such use is appropriate, and examining strategies employed to reduce inappropriate use may all be of policy interest.

This report describes EDs, the role they play in the health care delivery system, and current federal involvement in supporting EDs.[20] It then discusses the causes and consequences of three commonly identified and interrelated challenges that EDs face: (1) crowding, (2) providing repeat care to a subset of patients who are frequent users, and (3) providing care to a large population who have behavioral health conditions when an ED lacks the appropriate resources to provide such treatment. The report concludes with policy options that Congress may consider to potentially improve ED functioning and reduce payer costs.

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[13] The Patient Protection and Affordable Care Act (ACA, P.L. 111-148, as amended) expanded insurance coverage, which has reduced the number of people who are uninsured. For more information, see the CRS series of ACA Reports at http://www.crs.gov/pages/subissue.aspx?cliid=3746&parentid=13&preview=False. It is not clear what the effect of the ACA will be on ED use; see discussion in "The ACA May Affect ED Use" in this report.

[14] GAO-09-347.

[15] For example, one study found that expanding Medicaid coverage increased ED use among those who were newly Medicaid eligible. See Sarah L. Taubman et al., "Medicaid Increases Emergency-Department Use: Evidence from Oregon's Health Insurance Experiment," *Science*, vol. 343, no. 6 (January 17, 2014), pp. 263-268.

[16] Centers for Medicare & Medicaid Services, Office of the Actuary, National Health Statistics Group, Year 2012. For descriptions of Medicare and Medicaid, see CRS Report R40425, *Medicare Primer*.

[17] Though ED spending is a relatively small percentage of overall Medicare spending (approximately 2%). Medicare beneficiaries are increasingly admitted to hospitals through EDs and 25% of Medicare spending is for inpatient hospital services. Jeffrey M. Gonzalez, *National health Care Expenses in the U.S. Civilian Noninstitutionalized Population, 2011*, Agency for Healthcare Research and Quality, Medical Expenditure Panel Survey, Statistical Brief #425, Rockville, MD, November 2013, http://meps.ahrq.gov/mepsweb/data_files/publications/st425/stat425.pdf and Medicare Payment Advisory Commission (MedPAC), *National Health Care and Medicare Spending*, Washington, DC, June 2014, http://www.medpac.gov/documents/publications/june-2014-data-book-section-1-national-health-care-and-medicare-spending.pdf?sfvrsn=2.

[18] CRS Report RL31719, *An Overview of the U.S. Public Health System in the Context of Emergency Preparedness*.

[19] See, for example, the federal health center program described in CRS Report R42433, *Federal Health Centers*, and programs that the federal government administers through the Health Resources and Services Administration, described in CRS Report R43304, *Public Health Service Agencies: Overview and Funding*.

[20] This report focuses on emergency departments (EDs) that are available to the general population; as such, it does not include EDs that are operated by the Departments of Defense or Veterans Affairs or those operated by the Indian Health Service.

EDs and Health Care Delivery

EDs play a role in the U.S. health care system that has expanded beyond their original purpose of providing emergency care. EDs are increasingly relied upon to fill gaps in available care by providing after-hours care, by providing care to the safety net population, and by providing behavioral health care when such care is not otherwise available. EDs are also increasingly providing types of care that have traditionally been provided by primary care providers (PCPs), such as conducting diagnostic testing (e.g., blood testing) and coordinating chronic care (e.g., care to manage a chronic disease such as diabetes). The role of an ED within a hospital has also changed, as EDs, instead of PCPs, increasingly drive hospital admissions, an important source of hospital revenue. This section provides an overview of the expanded role of EDs. All EDs provide similar types of care, but they may see different patient populations depending on their location (e.g., rural areas versus urban areas), and the services offered, as some EDs may offer specialized services such as trauma or burn care.[21]

EDs generally provide three types of care: (1) emergency care, (2) unscheduled urgent care, and (3) safety net care (see **Text Box 2**). Emergency care is the primary and original mission of EDs. Unscheduled urgent care may be used to treat an acute problem or the acute exacerbation of a chronic health problem. EDs may provide safety net care

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Text Box 2: Three Types of Care Commonly Provided by Emergency Departments

(1) *Emergency Care*: the treatment of seriously ill or injured patients who requirement immediate stabilizing treatment.

(2) *Unscheduled urgent care*: care provided for acute problems or acute exacerbation of chronic problems, generally because there is inadequate capacity in other parts of health care system.

(3) *Safety net care*: care provided to vulnerable populations who experience barriers that prevent them from accessing care from other parts of the health care system. As a consequence, this population uses EDs regularly for care, typically because cost or barriers to access prevent them from obtaining care in other settings.

Source: Brent R. Asplin et al., "A Conceptual Model of Emergency Department Crowding," *Annals of Emergency Medicine*, vol. 42, no. 2 (August 2003), pp. 173-180 and Institute of Medicine of the National Academies, Hospital-Based Emergency Care: At the Breaking Point (Washington, DC: National Academies Press, 2006).

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because patients have financial or other barriers that prevent them from accessing care from other components of the health care system.[22] Primary and behavioral health care are often provided in an ED as a result of either unscheduled urgent care or as part of an ED's safety net function. In both these cases, it is not optimal to provide these services in an ED.

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[21] Trauma care is provided at trauma centers, which are specialized hospitals with the staffing, resources, and equipment needed to treat severely injured patients. They provide specialized care beyond that of an ED. Not all hospitals with EDs are trauma centers, but most trauma centers have EDs. See Centers for Disease Control and Prevention, "Access to Trauma Care: Getting the Right Care, at the Right Place, at the Right Time," August 24, 2010, http://www.cdc.gov/traumacare/access_trauma.html.

[22] Institute of Medicine of the National Academies, *Hospital-Based Emergency Care: At the Breaking Point* (Washington, DC: National Academies Press, 2006).

EDs Fill Gaps in Available Care

ED use reflects the health needs of the surrounding community and the gaps in care available because EDs provide care to those with few alternate options. Given this, some ED visits may be considered "resource sensitive" and preventable if appropriate community-based resources are available.[23] Community-based resources encompass all types of health care, including primary care, laboratory testing, medical imaging, care provided to treat behavioral health conditions (e.g., care provided to treat mental health and substance use), and all types of specialty care (e.g., orthopedics). Community-based care may be constrained because care is completely unavailable, or is unavailable at certain times, for people with certain types of insurance, or for people who lack insurance. This may occur because a number of areas have provider shortages.[24] The federal government designates primary care health professional shortage areas and makes a number of programs available to alleviate these shortages. Still, there are approximately 6,100 areas designated as having too few primary care providers.[25] ED use may also be driven by the hours that physician offices are open, as EDs are often a source of after-hours care. For example, one study found that 75% of children's ED visits in 2012 occurred at night or on a weekend—hours when physicians offices are traditionally closed—and that this was the most common reason children visited an ED for non-emergent conditions, regardless of insurance status.[26]

EDs may be filling gaps in certain communities; but EDs may also be actively seeking patients, particularly those with private insurance coverage who are being treated for uncomplicated medical conditions.[27] As noted, ED care is more expensive for payors than is care provided in outpatient settings, in part, because hospitals receive higher reimbursements from payors to support the higher fix costs of an ED. Given these higher reimbursement rates, hospitals can generate revenue through the ED.[28] In these instances EDs may be filling gaps, but these gaps could have been filled in ways that are less expensive to payers.

EDs Provide Care to Safety Net Populations

ED use is also driven by the availability of community-based health service providers that accept safety net populations, such as the uninsured or Medicaid beneficiaries. For example, some physicians do not participate in Medicaid, and some Medicaid beneficiaries report barriers to accessing physician services.[29] This may also be true for uninsured individuals with few options

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[23] Agency for Health Care Research and Quality, "Overview of Emergency Department Visits in the United States, 2011," Statistical Brief #174, 2014.

[24] CRS Report R42029, *Physician Supply and the Affordable Care Act*.

[25] U.S. Department of Health and Human Services, Health Resources and Services Administration, "Shortage Designation: Health Professional Shortage Areas & Medically Underserved Areas/Populations," http://www.hrsa.gov/shortage/index.html. Approximately 4,000 areas have been designated as having shortages of mental health providers.

[26] Renee M. Gindi and Lindsey I. Jones, *Reasons for Emergency Room Use Among U.S. Children: National Health Interview Survey, 2012*, U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Health Statistics, NCHS Data Brief: No. 160, Hyattsville, MD, July 2014.

[27] Michael Wilson and David Cutler, "Emergency Department Profits Are Likely to Continue as the Affordable Care Act Expands Coverage," *Health Affairs*, vol. 33, no. 5 (May 2014), pp. 792-799.

[28] Phillip L. Henneman et al., "Is Outpatient Emergency Department Care Profitable? Hourly Contribution Margins by Insurance for Patients Discharged from an Emergency Department," *Annals of Emergency Medicine*, vol. 63, no. 4 (April 2014), pp. 404-411.

[29] Peter J. Cunningham and Ann S. O'Malley, "Do Reimbursement Delays Discourage Medicaid Participation by Physicians?" *Health Affairs*, vol. 28, no. 1 (November 18, 2008), pp. w17–w28; Heidi Allen, Bill J. Wright, and (continued...)

except self-pay for visits, which may not be financially feasible. Communities that have federal health centers—federally funded safety net facilities that are required to provide primary and some specialty and dental care to all individuals regardless of their ability to pay—have lower ED use.[30] Although health centers may employ strategies to reduce ED use,[31] they may be limited in their ability to do so because they are generally not open after hours and many may be operating at or above capacity.[32] Still, facilities that target the safety net population can reduce ED use, which demonstrates that some ED use is resource-sensitive.

EDs Provide Behavioral Health Care

EDs may fill gaps when needed behavioral health services are unavailable. Patients use EDs for behavioral health care because there may be few other options, because there are shortages of behavioral health providers. Specifically, there are approximately 4,000 areas designated as mental health professional shortage areas and more than half of U.S. counties do not have a practicing behavioral health provider.[33] In addition to provider shortages, there are also shortages of inpatient treatment options for patients who require longer-term treatment.[34] This occurs, in part, because a number of states have decreased funding for inpatient psychiatric care.[35] Patients with mental health conditions may also be brought to an ED by law enforcement when the person is causing a disturbance that law enforcement or other emergency personnel determine requires medical intervention. Although such episodes may be acute, they may not necessarily be best addressed in an ED. Some EDs may lack the services or staff necessary to provide behavioral health care and even in cases when EDs do not lack capacity, providing care to this population is resource intensive. This is particularly the case for patients with both behavioral health conditions and acute or chronic health conditions.[36] A study conducted by the Agency for Healthcare

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(...continued)

Katherine Baicker, "New Medicaid Enrollees in Oregon Report Health Care Successes and Challenges," *Health Affairs*, vol. 33, no. 2 (February 2014), pp. 292-299; and Anna S. Sommers, Ellyn R. Boukus, and Emily Carrier, *Dispelling Myths About Emergency Department Use: Majority of Medicaid Visits are for Urgent or More Serious Symptoms*, Center for Studying Health System Change, No. 23, Washington, DC, July 2012.

[30] CRS Report R42433, *Federal Health Centers*.

[31] U.S. Government Accountability Office, *Hospital Emergency Departments: Health Center Strategies that May Help Reduce Their Use*, GAO-11-414R, April 11, 2011.

[32] Jessamy Taylor, *Don't Bring Me Your Tired, Your Poor: The Crowded State of America's Emergency Departments*, National Health Policy Forum, Issue Brief-No. 811, Washington, DC, July 7, 2006.

[33] U.S. Department of Health and Human Services, Health Resources and Services Administration, "Shortage Designation: Health Professional Shortage Areas & Medically Underserved Areas/Populations," http://www.hrsa.gov/shortage/index.html and National Alliance on Mental Illness, *NAMI State Advocacy: Workforce Development: Policy Brief*, Arlington, VA, June 2011, http://www.nami.org/Content/NavigationMenu/State_Advocacy/About_the_Issue/Workforce_Development_2011.pdf.

[34] CRS Report R43255, *The Mental Health Workforce: A Primer*, and Centers for Medicare & Medicaid Services, *Extract of Final Report of The Emergency Medical Treatment and Labor Act Technical Advisory Group to the Secretary of the U.S. Department of Health and Human Services*, Washington, DC, April 2, 2008, https://www.cms.gov/Regulations-and-Guidance/Legislation/EMTALA/downloads/EMTALA_Final_Report_Summary.pdf.

[35] Peter J. Cunningham, Kelly McKenzie, and Erin Fries Taylor, "The Struggle to Provide Community-Based Care to Low-Income People with Serious Mental Illness," *Health Affairs*, vol. 25, no.3 (2006), pp. 694-705. It is possible that as some states implement the ACA's Medicaid expansion, mental health services may become more accessible.

[36] Anne Manton, *Care of the Psychiatric Patient in the Emergency Department*, Emergency Nurses Association, white paper, Des Plaines, IL, February 2013, http://www.ena.org/practice-research/research/Documents/WhitePaperCareofPsych.pdf.

Research and Quality (AHRQ) and the Substance Abuse and Mental Health Services Administration (SAMHSA) found that individuals with mental health and/or substance use disorders that impaired their functioning were more likely to have multiple ED visits during the course of a year (to treat both physical and behavioral health conditions).[37] This was particularly true for individuals who had co-occurring chronic conditions such as diabetes.

EDs May Not Be Used Appropriately

In part because of the ED's role as a gap filler, conventional wisdom holds that some ED visits are inappropriate when patients use EDs for minor ailments or for convenience.[38] Although some EDs visits are inappropriate (i.e., these visits are to treat conditions that could have been treated in an outpatient setting),[39] researchers have found that this generally occurs because people have few other treatment options or because they were referred to an ED by a health care provider.[40] This is particular true for Medicaid enrollees, where public (and policy maker) perceptions are that Medicaid enrollees misuse EDs.[41] However, the data do not suggest this because EDs more often evaluated Medicaid enrollees as having an urgent or semi-urgent complaint than were privately insured patients seen in the ED.[42] Although Medicaid enrollees use EDs at higher rates than people who are privately insured or uninsured, much of this use can be explained by the higher rates of chronic conditions among Medicaid enrollees, or by Medicaid enrollees' difficulties in securing an appointment with another provider.[43] Because they lack access to other providers, uninsured individuals may use EDs for health conditions that could have been treated in an outpatient setting (e.g., diabetes), but were not because of access issues.

Some of the contention that patients use EDs unnecessarily may be an artifact of the terminology that EDs use to classify visits. EDs use the Emergency Severity Index (ESI) to triage patients, which uses the term "non-urgent" to indicate that wait times should not exceed 24 hours.[44] "Non-urgent" complaints do not equate to "unnecessary" complaints. The ESI system categorizes complaints based on needed resources, physical assessment, and risk factors and may classify

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[37] R.M. Coffey, *Emergency Department Use for Mental Health and Substance Use Disorders*, U.S. Agency for Healthcare Research and Quality (AHRQ), Rockville, MD, August 23, 2010, http://www.hcup-us.ahrq.gov/reports/ED_Multivar_Rpt_Revision_Final072010.pdf.

[38] Anna S. Sommers, Ellyn R. Boukus, and Emily Carrier, *Dispelling Myths About Emergency Department Use: Majority of Medicaid Visits are for Urgent or More Serious Symptoms*, Center for Studying Health System Change, No. 23, Washington, DC, July 2012.

[39] Kristy Gonzalez Morganti et al., *The Evolving Roles of Emergency Departments in the United States*, RAND Health, RR-280-ACEP, Santa Monica, CA, 2013, http://www.rand.org/pubs/research_reports/RR280.html; hereinafter, *RANDHealth ED Report*.

[40] Ibid.

[41] As a result of this perception and in an attempt to reduce non-emergency ED use, some state Medicaid programs have instituted copayments for non-emergency ED use. See Medicaid and CHIP Payment Advisory Commission, *MAC Facts, Key Findings on Medicaid and CHIP: Revisiting Emergency Department Use in Medicaid*, Washington, DC, July 2014.

[42] *Urgent* refers to conditions assessed to need an evaluation within one hour and *semi-urgent* refers to conditions needing an evaluation between one and two hours. See Anna S. Sommers, Ellyn R. Boukus, and Emily Carrier, *Dispelling Myths About Emergency Department Use: Majority of Medicaid Visits are for Urgent or More Serious Symptoms*, Center for Studying Health System Change, No. 23, Washington, DC, July 2012.

[43] Medicaid and CHIP Payment Advisory Commission, *MAC Facts, Key Findings on Medicaid and CHIP: Revisiting Emergency Department Use in Medicaid*, Washington, DC, July 2014.

[44] GAO-09-347.

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visits as "non-urgent" based on the severity of the complaint. However, it is often difficult to determine prospectively whether a complaint is non-urgent. Patients may present to EDs with a complaint that they perceive as a true emergency, for instance, receiving an uncomplicated bite from a feral animal. Most people, even educated clinicians, recognize this condition as requiring prompt care; however, because the bite is uncomplicated, it is categorized as "non-urgent." This coding system makes it difficult to determine whether EDs are being used inappropriately because some cases classified as non-urgent may have seemed urgent when the patient presented to the ED.

EDs Provide Primary Care

In addition to filling gaps in available primary care, EDs are also taking on some of the role that primary care providers (PCPs) once filled by evaluating and managing chronic illnesses, particularly for older adults.[45] Patients with chronic illnesses may require rapid evaluation and possible treatment; therefore, PCPs and other providers are increasingly referring these patients to EDs.[46] Medical advances have expanded the scope of illnesses treatable in the ED setting because EDs generally offer a number of diagnostic tests that are not readily or simultaneously available in other settings.[47] This expanded diagnostic role of EDs occurs in part for clinical reasons, but it is also driven by administrative factors such as a patient's ability to secure a timely visit with a physician that is included in the patient's insurance plan.[48] The decision to admit a patient to a hospital after rapid diagnostic testing is increasingly being made by an ED physician, which offsets a 24% decline in admissions from PCPs.[49]

Though EDs have resources to evaluate patients with chronic illnesses, PCPs are better equipped to manage these patients in the long-term. In general, EDs are not designed to manage chronic illness, and ED provision of this type of care may be detrimental to patients. ED providers do not generally have the patient's full medical records—although increased use of electronic health records could change this—and given the nature of an ED environment, providers face frequent interruptions and are often rushed because of incoming emergencies. This may mean that patients who seek primary care in an ED can receive lower-quality care and are at greater risk of experiencing a medical error than if the care was received in a more appropriate setting.[50] Such unintended consequences, may, in turn, create a feedback loop where these patients require additional ED care.

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[45] Stephen Pitts et al., "National Trends in Emergency Department Occupancy, 2001 to 2008: Effect of Inpatient Admissions Versus Emergency Department Practice Intensity," *Annals of Emergency Medicine*, vol. 60, no. 6 (December 2012). Some experts have also speculated that the use of EDs to manage chronic illness will increase as the population ages. Institute of Medicine of the National Academies, *Hospital-Based Emergency Care: At the Breaking Point* (Washington, DC: National Academies Press, 2006).

[46] RANDHealth ED Report.

[47] Ibid.

[48] Ibid. Hospitals have some control over these administrative factors (e.g., they contract with certain physicians who, in turn, only contract with certain insurance plans) and some hospitals promote ED referrals as a way of increasing inpatient admissions. See discussion in "EDs Are a Gateway for Inpatient Admissions."

[49] Ibid; and Derek DeLia and Joel Cantor, *Emergency Department Utilization and Capacity*, Robert Wood Johnson Foundation, 2009.

[50] There is evidence that medical errors in EDs are linked to interruptions, which are more common in an ED setting. See Carey D. Chisholm et al., "A Task Analysis of Emergency Activities in Academic and Community Settings," *Annals of Emergency Medicine*, vol. 58, no. 2 (January 31, 2011), pp. 117-122.

EDs Are a Gateway for Inpatient Admissions

Generally, EDs are considered to be costly for a hospital because they have high fixed costs related to their emergency capacities, which may not be used on a daily basis. However, depending on a hospital's payor mix, EDs may generate revenue for a hospital because they drive inpatient admissions.[51] Specifically, between 2003 and 2009, the total number of hospital admissions increased driven primarily by a 20% increase in non-elective admissions from EDs.[52] Even in cases where an ED visit does not result in an admission, ED visits for individuals who are privately insured can be profitable.[53] This is particularly true when EDs are treating uncomplicated conditions that could have been treated in an outpatient setting.[54] However, ED visits may not be profitable with other payers; outpatient visits for those enrolled in Medicare or Medicaid or who are uninsured may yield reimbursement rates that are lower than the hospital's costs. Despite the potential of such losses, EDs can be profitable overall because of their link to admission; as a consequence, some hospitals have expanded ED services or have created free-standing emergency rooms. Some hospitals are also anticipating that EDs will become revenue generating with the ACA's expansion of private insurance coverage.[55] Although EDs may be profitable for a hospital, particularly when EDs are used to treat uncomplicated conditions, such ED care is generally costly to payors because care could be provided at a lower cost in an outpatient setting.[56]

With 15% of ED visits resulting in admissions,[57] these admissions compose nearly half of all hospital admissions and over two-thirds of all non-elective admissions.[58] ED visits that result in admission are particularly common for Medicare beneficiaries. In 2010, sixty percent of ED visits by Medicare beneficiaries resulted in a hospital admission.[59] Although ED visits represent a large percentage of all acute care visits, they account for 2% of all Medicare costs.[60] This outcome

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[51] Michael Wilson and David Cutler, "Emergency Department Profits Are Likely to Continue as the Affordable Care Act Expands Coverage," *Health Affairs*, vol. 33, no. 5 (May 2014), pp. 792-799.

[52] Hospital admissions are comprised of two types: non-elective admissions and elective admissions. *Non-elective admissions* refer to medically necessary admissions to treat unscheduled events, such as a heart attack. *Elective admissions* are generally procedures that are medically necessary; however, they are planned (e.g., a knee replacement).

[53] Michael Wilson and David Cutler, "Emergency Department Profits Are Likely to Continue as the Affordable Care Act Expands Coverage," *Health Affairs*, vol. 33, no. 5 (May 2014), pp. 792-799.

[54] Phillip L. Henneman et al., "Is Outpatient Emergency Department Care Profitable? Hourly Contribution Margins by Insurance for Patients Discharged from an Emergency Department," *Annals of Emergency Medicine*, vol. 63, no. 4 (April 2014), pp. 404-411.

[55] Michael Wilson and David Cutler, "Emergency Department Profits Are Likely to Continue as the Affordable Care Act Expands Coverage," *Health Affairs*, vol. 33, no. 5 (May 2014), pp. 792-799.

[56] Studies have found that ED services can be three to five times more costly than similar services provided in a community-based setting. For discussion, see R.M. Coffey, *Emergency Department Use for Mental Health and Substance Use Disorders,* U.S. Agency for Healthcare Research and Quality (AHRQ), Rockville, MD, August 23, 2010, http://www.hcup-us.ahrq.gov/reports/ED_Multivar_Rpt_Revision_Final072010.pdf, p. 3.

[57] Derek DeLia and Joel Cantor, *Emergency Department Utilization and Capacity*, Robert Wood Johnson Foundation, 2009.

[58] RANDHealth ED Report.

[59] Centers for Disease Control and Prevention, *Ambulatory Health Care Data: National Ambulatory Medicare Care Survey*, National Hospital Ambulatory Medicare Care Survey: 2010 Emergency Department Summary Tables, Hyattsville, MD, February 24, 2014, pp. 6-7, http://www.cdc.gov/nchs/data/ahcd/nhamcs_emergency/2010_ed_web_tables.pdf.

[60] ED visits account for 2% of costs for Medicare beneficiaries and account for 4% of total Medicaid spending; see Jeffrey M. Gonzalez, *National Health Care Expenses in the U.S. Civilian Noninstitutionalized Population, 2011*, (continued...)

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occurs partially because when Medicare beneficiaries are admitted after an ED visit, the payment for ED services is included within Medicare's payment for inpatient services.[61] As ED visits for Medicare beneficiaries are more likely to result in an admission,[62] total ED costs are generally underestimated.[63]

The ACA May Affect ED Use

The implementation of the Affordable Care Act (ACA) may have a number of effects on the use of EDs and their finances, although these effects vary by hospital and depend on the patients they treat. The ACA is generally expected to increase hospital reimbursements for emergency care because fewer people will be uninsured and therefore seeking uncompensated care in an ED.[64] However, insurance coverage rates are expected to vary, in part, because some states will not implement the ACA Medicaid expansion.[65] In states that have implemented the ACA Medicaid expansion, the effects of the ACA are more pronounced because a larger share of the population has gained insurance coverage. Specifically, hospitals in these states report that their expenditures on uncompensated care have decreased since the ACA was implemented.[66] In states that did not implement the ACA Medicaid expansion, these declines have not occurred, but these hospitals are still subject to a number of ACA-related payment reductions that were enacted, in part, because it was expected that the law would decrease the amount of uncompensated care that hospitals would provide. Hospitals that see payment reductions, without concurrent increases in collections, may be further strained by the ACA.[67]

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Agency for Healthcare Research and Quality, Medical Expenditure Panel Survey, Statistical Brief #425, Rockville, MD, November 2013, http://meps.ahrq.gov/mepsweb/data_files/publications/st425/stat425.pdf and Medicaid and CHIP Payment Advisory Commission, *MAC Facts, Key Findings on Medicaid and CHIP: Revisiting Emergency Department Use in Medicaid*, Washington, DC, July 2014.

[61] Medicare Payment Advisory Commission (MedPAC), *Hospital Acute Inpatient Services Payment Basics*, Payment Basics, Washington, DC, October 2013, http://www.medpac.gov/documents/payment-basics/hospital-acute-inpatient-services-payment-system.pdf?sfvrsn=0. This is also true for other payers where the hospital's charges for emergency care are included in the admission fee. ED physicians will bill patients separately. See Phillip L. Henneman et al., "Is Outpatient Emergency Department Care Profitable? Hourly Contribution Margins by Insurance for Patients Discharged from an Emergency Department," *Annals of Emergency Medicine*, vol. 63, no. 4 (April 2014), pp. 404-411.

[62] Centers for Disease Control and Prevention, *Ambulatory Health Care Data: National Ambulatory Medicare Care Survey*, National Hospital Ambulatory Medicare Care Survey: 2010 Emergency Department Summary Tables, Hyattsville, MD, February 24, 2014, pp. 6-7, http://www.cdc.gov/nchs/data/ahcd/nhamcs_emergency/2010_ed_web_tables.pdf.

[63] Other payers, including Medicaid, also include ED services as part of the reimbursement for a patient's inpatient services.

[64] Jessica E. Galarraga and Jesse M. Pines, "Anticipated Changes in Reimbursements for U.S. Outpatient Emergency Department Encounters After Health Reform," *Annals of Emergency Medicine*, vol. 63, no. 4 (April 2014), pp. 412-417.

[65] For information about states having the option to implement the Medicaid expansion, see CRS Report R43564, *The ACA Medicaid Expansion*.

[66] Thomas DeLeire, Karen Joynt, and Ruth McDonald, *Impact of Insurance Expansion on Hospital Uncompensated Care Costs in 2014*, U.S. Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation, ASPE Issue Brief, Washington, DC, September 24, 2014, http://aspe.hhs.gov/health/reports/2014/UncompensatedCare/ib_UncompensatedCare.pdf.

[67] For information on the ACA-related payment reductions, see "Federal Support for Uncompensated Care." Much of the information available about how hospitals will fare in Medicaid expansion and non-expansion states is anecdotal; for example, see Beth Kutscher, "Two Americas: Hospitals See Big Differences Between Medicaid Expansion and (continued...)

The effects of the ACA on ED use are not yet clear. It is possible that the law may decrease ED use, may slow the rate of ED growth, or keep the growth of ED use comparable to the growth that would have occurred without changes.[68] Or it may decrease ED use for certain groups, as one study of ED use by young adults found.[69] However, it is possible that the law may increase ED use; researchers have found that ED use is higher among the newly insured and that ED use increased for those who became Medicaid-eligible in Oregon, a state that had previously implemented a Medicaid expansion.[70] Such increases in ED use could be temporary, as people with unmet needs seek care once they gain coverage, but then use drops as their health care needs are met.[71] ACA could also mean that ED patients are sicker than the ones ED treated prior to the law; as was found in a study of ED use in Massachusetts, a state that enacted health reforms prior to the ACA.[72] Although the full effects of the ACA on ED use are not yet known, use will likely vary by state, and may change over time. In addition, there are concerns that some people newly eligible for Medicaid may not be able to secure timely access to primary care or specialty care providers, and may continue to seek care in the ED.[73]

New Types of Health Care Facilities May Change the EDs' Role

Three new outpatient health care options may change the role of the ED by filling gaps in outpatient and after-hours care. Retail clinics provide unscheduled routine primary care; and may provide some access to care for non-emergency conditions for individuals who are able to pay for such services. Similarly, urgent care clinics provide unscheduled and after-hours access to care for a larger range of services. Hospitals may also choose to operate free-standing emergency rooms that function like an ED, but are not located on hospital grounds. These facilities, if operated by a hospital, would be subject to EMTALA. Other entities—such as private investment groups or ED physicians—have also opened free-standing emergency rooms, which are not subject to EMTALA[74] (see **Text Box 3**). Although these options have the potential to enhance ED

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Nonexpansion States," *Modern Healthcare*, August 18, 2014, pp. 20-21.

[68] Soumy Karlamangla and Doug Smith, "Since Obamacare, Rate of Growth in L.A. County ER Visits Slows*," LA Times*, August 21, 2014, p. 2 and Christopher Chen, Gabriel Scheffler, and Amitabh Chandra, "Massachusetts' Health Care Reform and Emergency Department Utilization," *The New England Journal of Medicine*, vol. 365, no. e25 (September 22, 2011), pp. 1-3.

[69] Tina Hernandez-Boussard, "Emergency Department Use: The Affordable Care Act Reduces Emergency Department Use by Young Adults: Evidence from Three States," Health Affairs, vol. 33 (September 2014), pp. 1648-1654.

[70] Mark McClelland et al., "The Affordable Care Act and Emergency Care," *American Journal of Public Health*, vol. 104, no. 10 (October 2014), pp. e8-e10 and Sarah L. Taubman et al., "Medicaid Increases Emergency-Department Use: Evidence from Oregon's Health Insurance Experiment," *Science*, vol. 343, no. 6 (January 17, 2014), pp. 263-268. Research on Massachusetts, another state that expanded its Medicaid program prior to the ACA, did not find increases in ED use for the Medicaid population. See Medicaid and CHIP Payment Advisory Commission, *MAC Facts, Key Findings on Medicaid and CHIP: Revisiting Emergency Department Use in Medicaid*, Washington, DC, July 2014.

[71] Nigel Lo et al., *Increased Service Use Following Medicaid Expansion is Mostly Temporary: Evidence from California's Low Income Health Program*, UCLA Center for Health Policy Research, Policy Brief, Los Angeles, CA, October 15, 2014, http://healthpolicy.ucla.edu/publications/search/pages/detail.aspx?PubID=1338.

[72] Christopher Chen, Gabriel Scheffler, and Amitabh Chandra, "Massachusetts' Health Care Reform and Emergency Department Utilization," *The New England Journal of Medicine*, vol. 365, no. e25 (September 22, 2011), pp. 1-3.

[73] For information about access to care for Medicaid beneficiaries, see Department of Health and Human Services, Office of Inspector General, *State Standards for Access to Care in Medicaid Managed Care*, Washington, DC, September 2014, http://oig.hhs.gov/oei/reports/oei-02-11-00320.pdf.

[74] Beth Kutscher, "New Points of Entry: Stand-alone ERs Offer Systems Path to Higher Volume," *Modern Healthcare*, October 5, 2013 and American College of Emergency Physicians, Members of the Emergency Medicine Practice (continued...)

function by lessening the EDs' role as a gap filler, it is also possible that their growth may adversely affect EDs, because these facilities tend to be located in areas where patients have high rates of private insurance and these facilities are not required to accept all patients, and therefore, may limit their patients to those with private insurance, a potential source of revenue to EDs. As such, these new provide types could draw insured patients from traditional EDs, making the remaining patients disproportionately uninsured or on Medicaid, which could strain EDs' finances.[75]

Text Box 3: Retail Clinics, Urgent Care Clinics, and Free Standing EDs

Retail Clinics provide quick care for routine medical complaints (e.g., bronchitis). They generally lack access to laboratories, x-rays, or diagnostic equipment. They are located in a retail location, such as a pharmacy, and may be affiliated with a hospital or health system. They are most often staffed by a nurse practitioner or a physician assistant and generally require the patient (or the patient's insurance) to pay the cost of services and often require payment at the time that services are rendered.

Urgent Care Clinics are generally free-standing physicians' offices that offer extended hours and on-site access to laboratory testing, x-rays, and other diagnostic equipment. They offer more services than are available at a retail clinic (e.g., they can treat fractures). They generally require the patient (or the patient's insurance) to pay the cost of services and often require payment at the time that services are rendered.

Free-Standing Emergency Rooms provide services similar to the care available in an ED, but without the co-located hospital available for admission or certain surgeries. These facilities, unless operated by a hospital, are generally not subject to EMTALA, and are not required to accept Medicare and Medicaid reimbursements. As such, they may disproportionately serve patients with private insurance. Many free-standing EDs have transfer agreements with hospitals and some are operated by the hospitals they refer patients to (thereby increasing admissions for patients with private insurance at the referral hospital).

Sources: Ateev Mehrotra et al., "Retail Clinics, Primary Care Physicians, and Emergency Departments: A Comparison of Patients' Visits," *Health Affairs*, vol. 27, no. 5 (September 2008), pp. 1272-1282; Robin M. Weinick, Rachel M. Burns, and Ateev Mehrotra, "Many Emergency Department Visits Could Be Managed at Retail Clinics or Urgent Care Centers," *Health Affairs*, vol. 29, no. 9 (September 2010), pp. 1630-1636; American College of Emergency Physicians, Members of the Emergency Medicine Practice Committee, Freestanding Emergency Department: An Information Paper, American College of Emergency Physicians, July 2013, https://www.acep.org/uploadedFiles/ACEP/ Practice_Resources/issues_by_category/administration/Freestanding%20Emergency%20Departments%200713.pdf and Beth Kutscher, "New Points of Entry: Stand-alone ERs Offer Systems Path to Higher Volume," *Modern Healthcare*, October 5, 2013.

Federal Regulation and Support of ED Services

The federal government both regulates and supports ED services by (1) requiring hospitals with EDs to provide certain emergency services, (2) reimbursing for emergency services provided to individuals enrolled in federal insurance programs, (3) requiring certain private insurance plans to include coverage of emergency health services, and (4) providing funds to hospitals to defray the

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Committee, *Freestanding Emergency Department: An Information Paper*, American College of Emergency Physicians, July 2013, https://www.acep.org/uploadedFiles/ACEP/Practice_Resources/issues_by_category/administration/ Freestanding%20Emergency%20Departments%200713.pdf.

[75] See, for example, Robin M. Weinick, Rachel M. Burns, and Ateev Mehrotra, "Many Emergency Department Visits Could Be Managed at Urgent Care Centers and Retail Clinics," *Health Affairs*, vol. 29, no. 9 (September 2010), pp. 1630-1633; and Alexa Ura, "Texas Hospitals Say They've Lost Insured Patients to Urgent Care," *The New York Times*, August 29, 2014, p. A19A, National Edition.

cost of providing uncompensated care. The federal government also supports hospital preparedness as part of its emergency preparedness activities, and supports the broader health care delivery system in ways that might reduce inappropriate ED use. Specifically, it supports health care safety net facilities, behavioral health care, and efforts to increase care coordination to reduce ED use for individuals with chronic conditions. Examples of federal involvement in hospital-based emergency care are discussed below.[76]

Emergency Medical Treatment and Active Labor Act (EMTALA)

The federal government requires—as a condition of Medicare participation—that hospitals with dedicated EDs screen and provide treatment to patients with emergent conditions regardless of a patient's ability to pay.[77] This requirement is set forth in the Emergency Medical Treatment and Active Labor Act (EMTALA), which was enacted in 1986 as part of the Consolidated Omnibus Budget Reconciliation Act of 1985 (P.L. 99-272). EMTALA was enacted in response to controversies that arose when patients died because some hospitals refused emergency services to uninsured patients as a way of reducing the amount of uncompensated care the hospitals provided. This practice is known as "dumping."[78] EMTALA requires that patients be medically evaluated—through an appropriate medical screening exam (MSE)—and that patients be transferred to a hospital that can provide necessary services if the screening hospital is unable to provide appropriate care.

Hospitals have discretion about the types of specialty physicians they have available on-call.[79] If a hospital lacks an appropriate on-call physician to treat a particular patient it may transfer the patient to a facility that has an appropriate physician available.[80] A number of hospitals have difficulty in recruiting specialists to provide ED on-call coverage. For a number of reasons, specialty physicians may not want to take ED call. One reason is liability risk (or perceptions of that risk). Individual physicians are not subject to EMTALA; instead, hospitals are and may be sued by private individuals who are injured as a result of a hospital not meeting its EMTALA requirements.[81] Physicians cannot be sued for injuries incurred as a result of an EMTALA violation, but may be liable for injuries to ED patients that result from errors or negligence on the part of the treating physician.[82] Physicians may perceive this liability to be high and may feel at a greater risk when treating ED patients because they often treat these patients quickly, without complete knowledge of their underlying medical conditions. Specialty physicians may also not

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[76] The federal government also supports emergency medical services through the Department of Transportation; however, this support focuses on emergencies outside the hospital, which is beyond the scope of this report. For more information on these programs, see "Emergency Medical Services: National Highway and Transportation Safety Administration, (NHTSA)," at http://www.ems.gov/educationstandards.htm.

[77] Hospital-based EDs are required to provide care per EMTALA; however, the act only refers to stabilizing procedures and not to all services available within an ED or within a hospital in general. Some hospitals provide necessary treatment as dictated and transfer patients to other facilities for a variety of reasons: insurance, specialty needs, patient request, or bed availability.

[78] Mark M. Moy, *The EMTALA Answer Book: 2009 Edition* (Wolters Kluwer Law & Business, 2009), p. xxxiv.

[79] Letter from Director, Survey and Certification Group, Center for Medicaid and Medicare Services to Associate Regional Administrators, Division of Medicaid and State Operations, Region I-X, June 13, 2002, On-Call Requirements - EMTALA.

[80] Ibid.

[81] CRS Report RS22738, *EMTALA: Access to Emergency Medical Care*.

[82] Ibid.

wish to take ED call because, if they do, they are required—under the hospital's EMTALA requirement—to respond within a designated time frame[83] or face a fine ($50,000) and possible exclusion from the Medicare program.[84] The lack of specialty physicians willing to take ED call may have a larger impact on health care access. Some hospitals are unable to secure specialty physicians—a particular issue for high-risk specialties (e.g., neurosurgery)—and have to close their ED[85] or divert patients to other hospitals with these specialists. This may create a feedback loop whereby patients do not seek care at these hospitals because the hospital does not offer the full range of services, which may make it difficult for the hospital to remain open.[86]

Although EMTALA permits hospitals to bill patients who receive care as a result of the requirement, EMTALA has created the perception to some patients that EDs are a source of free care for the uninsured and that EDs must provide full treatment to patients even if they present with non-emergent conditions. These perceptions, in turn, may drive ED use for the uninsured, as ED use is often used for non-acute, non-emergent conditions by uninsured individuals.[87] In addition, though hospitals bill uninsured patients, the amounts that hospitals receive from uninsured patients are generally less than those received from insured patients. In some cases, the uninsured may be billed at higher rates than those billed to insurers; however, not all uninsured individuals will pay for services because some are unable to do so, and because some hospitals have indigent-care programs that provide free or reduced care.[88]

Tax-Exempt Hospitals and Charity Care

Not all hospitals have EDs, although some states require hospitals to have an ED to be licensed.[89] In states without this requirement, the entity that operates the hospital determines whether or not a hospital has an ED. Specifically, hospitals that are not-for-profit or those operated by state and local governments are more likely to have an ED—nearly all these types of hospitals have an ED, whereas only two-thirds of investor-owned hospitals do.[90] Not-for-profit and state and local hospitals operate EDs and provide charity care (i.e., uncompensated care) as part of their missions.[91] In addition, the ACA requires that hospitals that have tax-exempt status meet a

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[83] 42 C.F.R. §489.20(r)(2) does not define a specific time, instead it requires that a hospital define available providers.

[84] CRS Report RS22738, *EMTALA: Access to Emergency Medical Care*.

[85] Renee Y. Hsia, Arthur L. Kellermann, and Yu-Chen Shen, "Factors Associated with Closures of Emergency Departments in the United States," *Journal of the American Medical Association*, vol. 305, no. 19 (May 18, 2011), pp. 1978-1985.

[86] Centers for Medicare & Medicaid Services, Extract of Final Report of the Emergency Medical Treatment and Labor Act Technical Advisory Group to the Secretary of the U.S. Department of Health and Human Services, Washington, DC, April 2, 2008, https://www.cms.gov/Regulations-and-Guidance/Legislation/EMTALA/downloads/EMTALA_Final_Report_Summary.pdf.

[87] Renee M. Gindi and Lindsey I. Jones, *Reasons for Emergency Room Use Among U.S. Children: National Health Interview Survey, 2012*, U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Health Statistics, NCHS Data Brief: No. 160, Hyattsville, MD, July 2014.

[88] Glenn A. Melnick and Katya Fonkych, "Hospital Pricing and the Uninsured: Do the Uninsured Pay Higher Prices?" *Health Affairs*, vol. 27, no. 2 (March 2008), pp. w116-w122.

[89] See for example, New York Code, Public Health, Article 28, §2801, "Definitions," at http://codes.lp.findlaw.com/nycode/PBH/28/2801.

[90] Jessamy Taylor, *Don't Bring Me Your Tired, Your Poor: The Crowded State of America's Emergency Departments*, National Health Policy Forum, Issue Brief-No. 811, Washington, DC, July 7, 2006.

[91] Ibid.

"community benefit standard," although this can be satisfied in a number of ways; some hospitals do so by providing free or reduced care.[92]

Coverage of Emergency Care and Federal Insurance Programs

The federal government finances care provided to beneficiaries enrolled in Medicare, Medicaid, and CHIP. Under each of these programs, emergency services are a covered benefit. As such, beneficiaries are eligible to receive services in EDs with hospitals receiving reimbursements that vary by the services provided, the program providing reimbursements, and the location and type of hospital providing services.[93] Emergency health services are also considered to be an "essential health benefit" under the ACA. As such, non-grandfathered private insurance plans offered through the nongroup and small group markets must cover emergency services.[94] Together, Medicare, Medicaid, CHIP, and private insurance plans offered through ACA exchanges provide insurance coverage to approximately 120 million people or approximately 37% of the U.S. population.[95]

Federal Support for Uncompensated Care

The costs associated with hospitals providing uncompensated care have been defrayed by three federal sources: Medicare disproportionate share hospital (DSH) payments, Medicaid DSH payments, and payments for undocumented immigrants. Through the Medicare and Medicaid programs, the federal government provides DSH payments to hospitals that treat large numbers of low-income patients. Although these payments can be used to support uncompensated care provided by an ED, in some cases they are not. Instead, in some states DSH payments are used to defray uncompensated inpatient care costs or all of the uncompensated care that a hospital provides.[96] The ACA, because it was expected to reduce the size of the uninsured population, included changes to Medicare and Medicaid DSH payments. Subsequent laws have amended Medicaid DSH payment reductions and delayed these reductions until FY2017.[97]

Hospitals also receive reimbursements for some emergency care provided to unauthorized aliens, nonimmigrants and legal permanent residents who are not eligible for Medicaid because, for the

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[92] CRS Report RL34605, *501(c)(3) Hospitals and the Community Benefit Standard*.

[93] For descriptions of Medicare, Medicaid, and CHIP, see CRS Report R40425, *Medicare Primer*; CRS Report R43357, *Medicaid: An Overview*; and CRS Report R43627, *State Children's Health Insurance Program: An Overview*.

[94] CRS Report R42069, *Private Health Insurance Market Reforms in the Affordable Care Act (ACA)*. For discussion of grandfathered plans, see CRS Report R41166, *Grandfathered Health Plans Under the Patient Protection and Affordable Care Act (ACA)*.

[95] CRS analysis of data from Department of Health and Human Services, Center for Medicare & Medicaid Services, *Medicaid & CHIP: February 2014 Monthly Applications, Eligibility Determinations, and Enrollment Report*, Baltimore, MD, April 4, 2014; U.S. Department of Health and Human Services, "Medicaid Enrollment Grows by More than 3 Million," press release, April 4, 2014, http://www.hhs.gov/healthcare/facts/blog/2014/04/medicaid-chip-determinations-february.html; and Kaiser Family Foundation at http://kff.org/medicare/state-indicator/total-medicare-beneficiaries/; and U.S. Census Bureau.

[96] Lavonne Downey et al., "Who Pays? How Reimbursement Impacts the Emergency Department," *Journal of Health and Human Services Administration*, vol. 36, no. 4 (Spring 2014), pp. 400-416.

[97] For more information on Medicaid DSH payments, see CRS Report R42865, *Medicaid Disproportionate Share Hospital Payments*. For information on ACA changes to Medicare DSH payments, see CRS Report R41196, *Medicare Provisions in the Patient Protection and Affordable Care Act (PPACA): Summary and Timeline*.

latter, there is a five-year waiting period before legal permanent residents are eligible for Medicaid.[98] These reimbursements are for services that qualify as "Emergency Medicaid," and cover services from emergency providers (including hospitals, but also including emergency transport) that treat an emergency or services for a pregnant woman that are related to her pregnancy (including prenatal care, labor, delivery, and post-partum care).[99] "Emergency Medicaid" is not available for all of the conditions for which people seek treatment in an ED, nor are these funds available for services provided to all unauthorized aliens, nonimmigrants, or legal permanent residents; "Emergency Medicaid" funds are only available for services provided to individuals who would have otherwise qualified for Medicaid, which, unless a state has implemented the Medicaid expansion, does not include childless adults.[100]

In addition to reimbursements available from Medicaid, from FY2005 to FY2008, the federal government allotted annual funding to states for certain emergency care provided to undocumented aliens.[101] The federal funding was allotted to the six states with the highest number of undocumented alien apprehensions receiving one-third of total funding. States, in turn, provide or have provided funding to hospitals, physicians, and ambulance service providers for emergency services provided to eligible patients. Although funding has not been allotted since FY2008, some states still have funds remaining from their allocation. As of May 2014, twenty-nine states have exhausted their allocation under this program, so new claims for services are not being accepted in these states. Although this funding source is or was available, for some hospitals it may not represent full reimbursement for care provided. This occurs in part because it is difficult to determine a particular hospital's need for these funds because hospitals do not ask about a patient's immigration status when providing care.

Emergency Preparedness

The federal government supports hospital emergency preparedness through the Hospital Preparedness Program administered by the HHS Assistant Secretary for Preparedness and Response (ASPR). The program began in FY2002, and funding for the program peaked in FY2003 with an appropriation of $515 million; funding since that time has declined by nearly 50% as the program's FY2014 appropriation was $255 million.[102] The program awards grants to support the ability of communities and hospitals to provide surge capacity during a public health emergency. Although these grants do not support day-to-day ED operations, support to strengthen medical surge capacity may include the development of processes to enhance ED operations so that hospitals have the capacity to surge during an emergency.[103]

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[98] CRS Report R43561, *Treatment of Noncitizens Under the Affordable Care Act*.

[99] 42 C.F.R. §440.255 "Limited services available to certain aliens." CRS Report R40772, *Noncitizen Health Insurance Coverage and Use of Select Safety-Net Providers*.

[100] The expansion of Medicaid in the ACA permitted states to cover childless adults, but not all states have elected to expand their Medicaid programs. See CRS Report R43564, *The ACA Medicaid Expansion*.

[101] Unless otherwise noted, this paragraph is drawn from Department of Health and Human Services, Centers for Medicare & Medicaid Services, *Section 1011: Federal Reimbursement of Emergency Health Services Furnished to Undocumented Aliens*, ICN 900863, Baltimore, MD, May 2014, http://www.cms.gov/Outreach-and-Education/Medicare-Learning-Network-MLN/MLNProducts/downloads/Section_1011_Fact_Sheet.pdf and CRS Report RL31630, *Federal Funding for Unauthorized Aliens' Emergency Medical Expenses*.

[102] CRS analysis of HHS annual "Budget in Brief" and congressional budget justification documents, http://dhhs.gov/asfr/ob/docbudget; for more information about this program.

[103] U.S. Department of Health and Human Services, Assistant Secretary for Preparedness and Response, "Public Health (continued...)

Trauma Care

ASPR also has authority to award grants to support trauma care, although these grants have not been funded.[104] Trauma care is a specific type of care, provided in designated centers that provide more intensive services than those that are traditionally available in an ED.[105] Trauma centers are distinct from EDs, but generally trauma centers will also have an ED. In the absence of a designated trauma center, EDs provide care to severely injured patients until they can be transferred to an appropriate trauma center. Given issues of ED crowding, funding to support designated trauma centers may mean that EDs would provide less trauma care prior to a transfer, which could free up ED resources.

Healthcare Safety Net

The federal government supports general health infrastructure, including the health care safety net. This support is not specifically related to emergency care, but has the potential to reduce ED use by reducing the ED's need to fill health system gaps. Determining whether or not this occurs is difficult as these programs do not directly aim to reduce ED use. For example, HHS's Health Resources and Services Administration (HRSA) supports the development of the health care workforce, focusing particularly on providers who care for disadvantaged populations. Such support does not focus on reducing ED use, but may reduce the need for some resource-sensitive ED use.[106] In an effort more focused on reducing ED use, HRSA awards grants to support federal health centers that provide primary care, dental care, and behavioral health care to all individuals regardless of their ability to pay.[107] Research has found that these health centers reduce ED use, in particular, for conditions that could have been treated in an outpatient setting (e.g., asthma).[108]

The Centers for Medicare & Medicaid Services (CMS), the agency that administers the Medicare, Medicaid, and CHIP programs, has awarded funds to states as part of its $50 million Emergency Room Diversion Grant Program. The program seeks to increase the number of community health centers, extend the hours at existing centers, and better coordinate care as part of CMS's efforts to reduce ED use among Medicaid beneficiaries. Grants were awarded to 20 states from FY2006 through FY2009.[109]

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Emergency/Hospital Preparedness Program (HPP)," July 16, 2014, http://www.phe.gov/PREPAREDNESS/PLANNING/HPP/Pages/default.aspx.

[104] 42 U.S.C. §§1201-1246.

[105] U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, "Injury Prevention and Control: Trauma Care," August 24, 2014, http://www.cdc.gov/traumacare/access_trauma.html.

[106] See, for example, descriptions of HRSA programs to support primary care in CRS Report R43177, *Health Workforce Programs in Title VII of the Public Health Service Act*, and U.S. Department of Health and Human Services, "National Health Service Corps," http://nhsc.hrsa.gov/. The National Health Service Corps provides scholarship and loan repayment to primary care and behavioral health providers, among others, who provide care in health professional shortage areas.

[107] CRS Report R42433, *Federal Health Centers*.

[108] U.S. Government Accountability Office, *Hospital Emergency Departments: Health Center Strategies that May Help Reduce Their Use*, GAO-11-414R, April 11, 2011.

[109] U.S. Department of Health and Human Services, Center for Medicare & Medicaid Services, *Emergency Room Diversion Grant Program*, Baltimore, MD, 2013, http://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Delivery-Systems/Grant-Programs/ER-Diversion-Grants.html.

Behavioral Health Support

EDs provide behavioral health care services because these services are often unavailable in the community. County-level data suggest that counties with available behavioral health outpatient options have lower ED use for behavioral health conditions.[110] The federal government, through SAMSHA, supports efforts to increase access to behavioral health care; though such support is not specifically related to emergency care, SAMHSA programs might reduce ED use. Specifically, SAMHSA support includes formula and competitive grants to states and territories to support community-based mental health and substance abuse treatment and prevention services.[111] Competitive grants to support these services are available to other entities, including private organizations and local communities. SAMHSA also provides technical assistance and workforce support. Given that provider shortages limit access to behavioral health care such support could help ensure that behavioral health services are available.[112]

CMS has also awarded funds to states to test whether reimbursing certain psychiatric facilities to which Medicaid payments have traditionally been prohibited would reduce Medicaid costs for psychiatric patients.[113] These prohibited facilities are called Institutions for Mental Disease (IMDs); they are inpatient facilities that have more than 16 beds and a patient roster in which more than half of the patients have severe mental illness. Traditionally, Medicaid has not been able to reimburse these facilities for services they provide to Medicaid beneficiaries between the ages of 22 and 64.[114] Some experts believe that the exclusion increases ED use.[115] This CMS-funded demonstration will examine health care costs overall, but given high ED use for behavioral health care conditions, this demonstration could provide information about whether reimbursing these facilities lowers ED use.

Care Coordination

The federal government also supports care coordination through medical homes, accountable care organizations, and other mechanisms.[116] Care coordination generally aims to improve health and reduce costs by preventing the exacerbations of chronic conditions that may necessitate an ED visit. A number of ongoing federal initiatives are administered by CMS, and as such, these initiatives focus on coordinating care as a way of reducing costs for beneficiaries of these programs. As discussed further below, a number of these initiatives include efforts to reduce ED use.

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[110] R.M. Coffey, *Emergency Department Use for Mental Health and Substance Use Disorders*, U.S. Agency for Healthcare Research and Quality (AHRQ), Rockville, MD, August 23, 2010, http://www.hcup-us.ahrq.gov/reports/ED_Multivar_Rpt_Revision_Final072010.pdf.

[111] CRS Report R43681, *SAMHSA FY2015 Budget Request and Funding History: A Fact Sheet*.

[112] CRS Report R43255, *The Mental Health Workforce: A Primer*.

[113] Centers for Medicare and Medicaid Services, "Medicaid Emergency Psychiatric Demonstration," http://innovation.cms.gov/initiatives/medicaid-emergency-psychiatric-demo/.

[114] CRS Report R43328, *Medicaid Coverage of Long-Term Services and Supports*.

[115] National Alliance on Mental Illness, "Policy Topics: Background Information on IMD Exclusion," http://www.nami.org/Template.cfm?Section=Issue_Spotlights&template=/ContentManagement/ContentDisplay.cfm&ContentID=44050.

[116] For more information, see "Federally Supported Care Coordination Models" in this report.

Research

The federal government supports medical research primarily through the National Institutes of Health (NIH).[117] Within the NIH, it supports the NIH's Office of Emergency Care Research (OECR).[118] This office aims to coordinate emergency care related research across the various NIH institutes and centers. A number of institutes within the NIH support emergency care research, generally in the context of a given disease or population that the institute focuses on (e.g., the National Heart, Lung, and Blood Institute supports research on cardiac emergency care and/or the National Institute on Aging supports research on emergency care for older adults).[119] OECR serves a broader coordination function and attempts to identify funding opportunities related to emergency care and/or those related to treating emergent medical conditions. It does not directly fund research grants. This NIH office is relatively new; it began in 2012 as a result of NIH efforts that followed up on the IOM emergency care reports.[120]

Selected Issues Affecting EDs

Nationwide, EDs have developed different strategies to deliver the care most appropriate to their respective communities. Despite differences, EDs generally face three common challenges to their ability to effectively provide care: (1) they are crowded, (2) they must provide repeat care to frequent users who could be more effectively treated in other settings, and (3) they must provide (or attempt to provide) care to patients with behavioral health conditions. Not all EDs will face these challenges because many of these concerns are related to the population that the ED serves. Hospitals that serve patients who have greater access to health care because they are privately insured or have Medicare coverage may not experience these challenges. Some hospitals have also developed strategies that have alleviated these concerns, or have implemented some of the strategies noted below. Still a number of EDs face these three challenges, which are defined and discussed below.

Crowding

Crowding is a situation in which the need for services exceeds an ED's capacity to provide these services. It often entails patients experiencing long wait times and/or being treated or monitored in non-treatment areas (e.g., hallways).[121] Generally, crowding reflects dysfunctions in the health

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[117] CRS Report R41705, *The National Institutes of Health (NIH): Background and Congressional Issues*, by Judith A. Johnson.

[118] For more information, see National Institutes of Health, National Institute of General Medical Sciences, "Office of Emergency Care Research," September 8, 2014, http://www.nigms.nih.gov/About/Overview/OECR/Pages/default.aspx.

[119] See, for example, National Institutes of Health, National Heart Lung and Blood Institute, *Emergency Department Management of Acute Heart Failure: Research Challenges and Opportunities*, Bethesda, MD, February 2010, http://www.nhlbi.nih.gov/research/reports/2009-ed-mgmt-ahf.htm.

[120] Institute of Medicine of the National Academies, *Hospital-Based Emergency Care: At the Breaking Point* (Washington, DC: National Academies Press, 2006); Institute of Medicine of the National Academies, *Emergency Medical Services: At the Crossroads* (Washington, DC: National Academies Press, 2006); and Institute of Medicine of the National Academies, *Hospital-Based Emergency Care for Children: Growing Pains* (Washington, DC: National Academies Press, 2006).

[121] Brent R. Asplin et al., "A Conceptual Model of Emergency Department Crowding," Annals of Emergency (continued...)

care system; although it seems like an ED problem, it is actually a systemic problem.[122] As discussed, EDs fill gaps in the health care system. In some communities, or for some populations, EDs may be the only available health care option.[123] This gap-filling role, coupled with fewer available EDs, has resulted in crowded conditions at the remaining available EDs.[124] Research shows that crowding reduces access to timely care by causing EDs to divert ambulances and by contributing to long wait times, in some cases so long that patients choose to leave without being seen (LWBS).[125] Diverted ambulances and patients who LWBS typically travel to the next closest ED; this may cause another ED to become crowded, in turn, causing a domino effect among the area's remaining EDs. Crowding also reduces a hospital's capacity to absorb surges in patient volume, both daily and in the event of a public health emergency.[126]

Crowding occurs disproportionately in hospitals in urban areas, (referred to as metropolitan statistical areas [MSAs]), which make up two-thirds of all hospitals and provide 85% of all ED care.[127] Crowding is particularly common in MSAs where the growth in the health care infrastructure has not kept pace with population growth. Hospitals in MSAs are more crowded; as a result, they divert more ambulances and have longer wait times.[128] MSA hospitals generally treat patients in their adjacent areas, and may also receive patients from further away because they offer specialty services (e.g., trauma or burn care). Under EMTALA, hospitals offering such specialty services must accept transferred patients requiring this care; hospitals have to accept these patients even if their EDs are already crowded, which may further increase crowding.[129]

Causes of Crowding

Crowding results from a number of health system factors; specifically, it is a symptom of the mismatch in the larger supply and demand of health care services.[130] ED crowding is often

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Medicine, vol. 42, no. 2 (August 2003), pp. 173-180.

[122] Elaine Rabin et al., "Solutions to Emergency Department 'Boarding' and Crowding Are Underused and May Need to Be Legislated," *Health Affairs,* vol. 31, no. 8 (2012), pp.1757-1766. In some cases, hospital or ED inefficiencies cause or contribute to crowding. A number of the potential solutions presented below include hospital-level efficiencies that aim to reduce ED crowding. Still, in GAO's 2009 report, they noted that some hospitals have implemented strategies to reduce crowding, but that crowding persisted despite some hospital's efforts. See GAO-09-347.

[123] Marcus Ong Eng Hock et al., "Should Emergency Departments Be Society's Health Safety Net?" *Journal of Public Health Policy*, vol. 26, no. 3 (2005), pp. 269-281.

[124] GAO-09-347. In 2012, there were 575 fewer EDs than were available in 1992. See American Hospital Association, TrendWatch Chartbook 2014, Table 3.3 Emergency Department Visits, Emergency Department Visits per 1,000 and Number of Emergency Departments, 1992-2012, http://www.aha.org/research/reports/tw/chartbook/index.shtml.

[125] GAO-09-347.

[126] Institute of Medicine (IOM) Hospital-Based Emergency Care: At the Breaking Point. National Academy of Sciences: Washington, DC, 2007.

[127] *Ibid.*

[128] *GAO-09-34*. Hospitals in MSAs also have high rates of nursing vacancies, which may increase their need to board patients, because they lack the nursing staff to care for additional inpatients. See, for example, Catharine W. Burt, and Linda F. McCaig, Centers for Disease Control and Prevention, National Center for Health Statistics, *Staffing, Capacity, and Ambulance Diversion in Emergency Departments, Emergency Departments: United States, 2003–04*, No. 376, Hyattsville, MD, September 27, 2006, http://www.cdc.gov/nchs/data/ad/ad376.pdf.

[129] Mark M. Moy, *The EMTALA Answer Book: 2009 Edition* (Wolters Kluwer Law & Business, 2009).

[130] Elaine Rabin et al., "Solutions to Emergency Department 'Boarding' and Crowding Are Underused and May Need to Be Legislated," *Health Affairs,* vol. 31, no. 8 (2012), pp.1757-1766.

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examined through the "input-throughput-output model," which helps identify factors from the perspective of an ED[131] (see **Figure 1**). Although the model presents a number of factors that cause crowding; boarding—where hospitals keep admitted patients in an ED until a bed is available—is generally considered to be the primary cause of crowding.[132] Hospitals may board admitted patients because they lack inpatient beds or because they lack nursing staff to care for additional admitted patients.[133] In some cases, hospitals may have inpatient beds available, but these beds may be reserved for patients with particular conditions (because nurses and other staff are trained to care for patients with particular ailments) or may be reserved for elective surgical procedures, resulting in a situation where a person is boarded in an ED even though the hospital has a physical bed available.[134] Admitted patients may be boarded in an ED for hours or days. Generally, patients who are boarded have worse outcomes, including higher death rates and longer lengths of stay.[135] Boarded patients, by virtue of requiring an inpatient admission, are often the sickest patients in an ED; as such, their presence further exacerbates crowding because they consume ED resources that would otherwise be available for incoming emergencies. Although boarding is the primary cause of crowding, a number of health system changes could alleviate crowding, as the "input-throughput-output model" indicates.[136]

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[131] Brent R. Asplin et al., "A Conceptual Model of Emergency Department Crowding," *Annals of Emergency Medicine*, vol. 42, no. 2 (August 2003), pp. 173-180.

[132] Elaine Rabin et al., "Solutions to Emergency Department 'Boarding' and Crowding Are Underused and May Need to Be Legislated," *Health Affairs,* vol. 31, no. 8 (2012), pp.1757-1766. Despite public perceptions otherwise, inappropriate use is not a major contributor to crowding. See Adrian Boyle, et al., "Emergency Department Crowding: Time for Interventions and Policy Evaluations." *Emergency Medicine International*, Volume 2012, (2012). Hospitals face financial pressures to operate at or close to capacity; as such, they attempt to schedule elective surgical procedures to assure that most or all inpatient beds are full. See GAO-09-347.

[133] Catharine W. Burt, and Linda F. McCaig, Centers for Disease Control and Prevention, National Center for Health Statistics, *Staffing, Capacity, and Ambulance Diversion in Emergency Departments, Emergency Departments: United States, 2003–04*, No. 376, Hyattsville, MD, September 27, 2006, http://www.cdc.gov/nchs/data/ad/ad376.pdf.

[134] Elaine Rabin et al., "Solutions to Emergency Department 'Boarding' and Crowding Are Underused and May Need to Be Legislated," *Health Affairs,* vol. 31, no. 8 (2012), pp. 1757-1766.

[135] Ibid.

[136] Brent R. Asplin et al., "A Conceptual Model of Emergency Department Crowding," *Annals of Emergency Medicine*, vol. 42, no. 2 (August 2003), pp. 173-180.

Figure 1. Input-Throughput-Output Model of Emergency Care
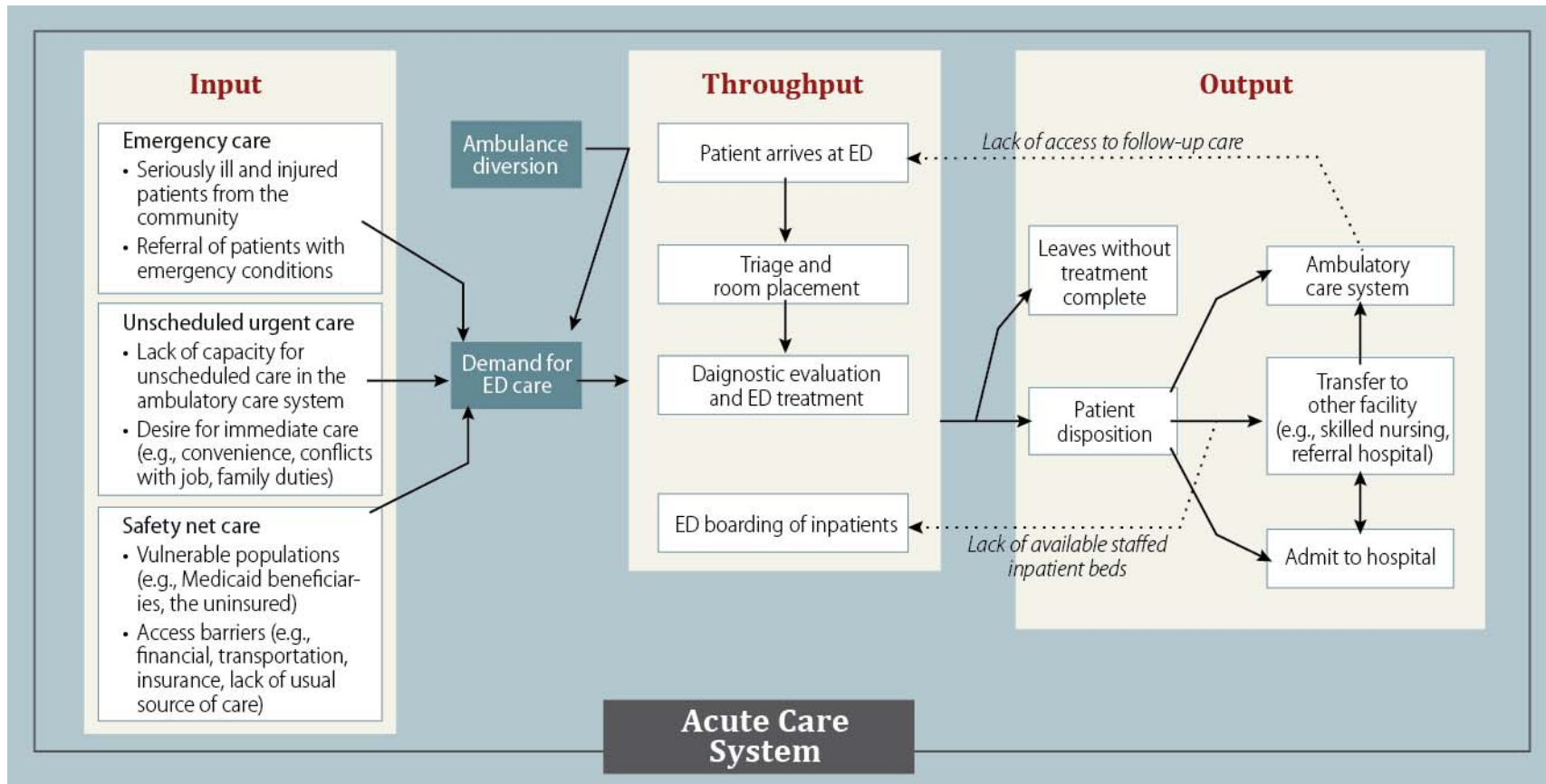
Source: Adapted by CRS from Brent R. Asplin et al., "A Conceptual Model of Emergency Department Crowding," *Annals of Emergency Medicine*, vol. 42, no. 2 (August 2003), pp. 173-180, p. 176.

Input

Input is any condition, event, or system characteristic that contributes to the demand for emergency care, unscheduled urgent care, or safety net care.[137] The demand for ED care depends on the volume of patients requiring emergency care and the volume of patients who are seeking care in the ED because it is after-hours or because they lack another source of care (e.g., safety net patients).[138] When the ambulatory care system is unable to provide the community with these kinds of services, people turn to the ED, thereby increasing demand.

Throughput

Throughput factors are events that influence a patient's length of stay (LOS) in an ED. A person's LOS is the length of time from arrival to discharge and involves two phases: (1) triage and room placement, and (2) diagnostic testing, ED treatment, and discharge.[139] Throughput factors, for example, are the number of CT scans, laboratory tests, and medications a person will need; whether the ED physician will have to consult a specialist; or how long it takes to see a physician initially. The model includes boarding in the throughput phase because it occurs within the ED and affects department operations; however, boarding results from a shortage of inpatient beds and should be considered separately from throughput factors that are under the control of the ED. The health of the population that the ED serves may also affect throughput. For example, as the population ages, ED patients may require more care to manage chronic conditions, including specialty care, which some EDs have difficulty obtaining.[140]

Output

Output refers to the disposition of a patient from an ED, including hospital admission, transfer to another facility, patient discharge, or patient death. It also refers to the ability of the ambulatory care system to provide appropriate care after a person leaves an ED. A hospital's available capacity determines whether an ED can transfer admitted ED patients to the inpatient unit. When a hospital lacks available beds or inpatient nursing staff, the ED will keep the patient (i.e., board the patient), either in hallway beds or in the rooms, which may reduce the capacity to receive incoming ambulances and patients.

Inpatient bed availability varies by hospital and by specialty. Some hospitals reserve medical inpatient beds for elective surgical procedures, even when its ED is holding patients.[141] Hospitals

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[137] Ibid.

[138] Institute of Medicine (IOM) Hospital-Based Emergency Care: At the Breaking Point. National Academy of Sciences: Washington, DC, 2007.

[139] ED treatments are any treatments that patients require to treat their acute problem. Treatments are not necessarily activities, such as sutures or splint application; treatments also include consultations or a physician's decision to admit, transfer, or discharge. See, Brent R. Asplin et al., "A Conceptual Model of Emergency Department Crowding," Annals of Emergency Medicine, vol. 42, no. 2 (August 2003), pp. 173-180. Discharge refers to "discharge out of the ED" whether the discharge is to another hospital department, another facility, discharged to home, or death. See, GAO-09-347.

[140] Stephen R. Pitts et al., "Where Americans Get Acute Care: Increasingly, It's Not at Their Doctor's Office*." Health Affairs*, vol. 29, no. 9 (September 2010), pp. 1620-1629.

[141] GAO-09-347.

have a number of financial incentives to reserve beds for these procedures, including the higher reimbursement rate for certain elective procedures and the guarantee of being paid for elective procedures because insurance coverage is checked before procedures are scheduled.[142] As such, some hospitals have incentives to make sure that beds are filled and attempt to schedule surgeries to do so, meaning that few beds will be unoccupied and available for ED patients.[143]

Shortages of beds in particular specialties may disproportionally affect crowding and the outcomes of ED patients. Shortages of beds in psychiatric units may be a particular contributor to crowding, as behavioral health patients are boarded on average twice as long as those waiting for hospital beds.[144] Given that behavioral health patients are generally resource intensive, their boarding may disproportionately contribute to crowding.[145] Shortages of intensive care unit (ICU) beds are a particular concern for ED patients who require such care. These patients are particularly vulnerable, the number of these patients has increased, and they have higher mortality rates when they are not promptly moved to the ICU setting.[146]

The Effects of Crowding

Crowding affects the health care delivery system at multiple levels. Specifically, it affects patients, hospitals, and payers. It does so primarily through increased costs and adverse health outcomes because treatment is delayed or forgone.

Effects on Patients

Crowding reduces access to critical ED care by delaying the time in which patients are able to receive treatment, which may affect patient health. Specifically, for some conditions treatment must occur during a critical period or there will be adverse outcomes. Some of the symptoms of crowding, such as LWBS, ambulance diversion, and boarding also have specific effects on patients' health. For example, patients who LWBS would not be evaluated for a medical emergency that could have been prevented. Crowding may cause an ED to initiate ambulance diversion, which affects both the patient and the community. Ambulance diversion[147] extends the patient's length of time in the ambulance, the length of time to see a physician, and the length of time before the ambulance can respond to other emergencies.[148] Boarding can have particular

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[142] Government Accountability Office. (2003) *Hospital Emergency Departments: Crowded Conditions Vary among Hospitals and Communities.* GAO-03-460.

[143] For example, GAO found that hospitals' attempts to fill all inpatient beds contributes to crowding. See GAO-09-347.

[144] Centers for Medicare & Medicaid Services, Extract of Final Report of the Emergency Medical Treatment and Labor Act Technical Advisory Group to the Secretary of the U.S. Department of Health and Human Services, Washington, DC, April 2, 2008, https://www.cms.gov/Regulations-and-Guidance/Legislation/EMTALA/downloads/EMTALA_Final_Report_Summary.pdf.

[145] Elaine Rabin et al., "Solutions to Emergency Department 'Boarding' and Crowding Are Underused and May Need to Be Legislated," *Health Affairs,* vol. 31, no. 8 (2012), pp.1757-1766.

[146] Andrew A. Herring et al., "Increasing Critical Care Admissions from U.S. Emergency Departments, 2001-2009," *Critical Care Medicine*, vol. 41, no. 5 (May 2013), pp. 1197-1204 and Donald B. Chaflin et al., "Impact of Delayed Transfer of Critically Ill Patients from the Emergency Department to the Intensive Care Unit," *Critical Care Medicine*, vol. 35, no. 6 (June 2007), pp. 1477-1483.

[147] Not all ambulances are able to be diverted. If a patient requires immediate life sustaining treatment diversion requests are not honored.

[148] Nancy Stephens Donatelli, Jennifer Gregorwicz, and Joan Somes, "Extended ED Stay of the Older Adult Results in (continued...)

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health effects on elderly patients, who generally have worse outcomes when compared to patients with similar characteristics who were not boarded.[149] Finally, when patients are admitted to a unit or a physician's service, it is expected that they will receive a specific combination of treatments; however, an ED may not have the appropriate equipment or staff who know how to perform these specific combinations of treatments. Inpatient units have specialized staff, strict nurse-to-patient ratios, and daily routines—all of which aim to provide the appropriate standard of care to meet a patient's needs.

Effects on Hospitals

Crowding, in general, and boarding, in particular, affect hospital finances by reducing ED and inpatient volume and decreasing revenue earned from serving additional patients. Each time an ambulance is diverted or patient LWBS, hospitals lose an opportunity to bill. One study on a single hospital calculated that reducing wait times by 120 minutes or less could increase revenue nearly $4 million dollars over the course of a year. It also found that moving boarded patients to inpatient beds within two hours increased the annual "functional treatment capacity" of an ED by 10,397 hours, or 433 days.[150] Boarding also increases length of stay; for example, one study found that patients who board for over 24 hours experienced a 12% longer hospital stay.[151] When hospitals are paid under a fixed-payment scheme (such as are used by Medicare),[152] it is in the hospital's financial interest to reduce the length of stay so that the patient's costs do not exceed the predetermined payment amount, as the hospital must absorb the additional costs.

Hospitals may also wish to reduce crowding and ED wait times to attract patients. Some hospitals—particularly those trying to attract private insured patients—will publicly advertise wait times as part of their marketing.[153] In addition, CMS publicly reports certain hospital-level quality data, including measures related to ED wait times and some that are affected by ED crowding, (e.g., measures related to pain management and timely antibiotic administration).[154] Prospective patients can use these data to select a hospital that has better ED outcomes and shorter wait times.[155] Some of these ED measures are also linked to Medicare payment under the

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Poor Patient Outcomes," *Journal of Emergency Nursing*, vol. 39, no. 3 (May 2013), pp. 268-272.

[149] Elaine Rabin et al., "Solutions to Emergency Department 'Boarding' and Crowding Are Underused and May Need to Be Legislated," *Health Affairs,* vol. 31, no. 8 (2012), pp.1757-1766.

[150] Thomas Falvo et al., "The Opportunity Loss of Boarding Admitted Patients in the Emergency Department," *Academic Emergency Medicine*, vol. 14 (2007), pp. 332-337.

[151] Matthew Foley, Nizar Kifaieh, and William K. Mallon, "Financial Impact of Emergency Department Crowding," *Western Journal of Emergency Medicine*, vol. XII, no. 2 (May 2011), pp. 192-197.

[152] CRS Report R40425, *Medicare Primer*.

[153] Phillip L. Henneman et al., "Is Outpatient Emergency Department Care Profitable? Hourly Contribution Margins by Insurance for Patients Discharged From an Emergency Department," *Annals of Emergency Medicine*, vol. 63, no. 4 (April 2014), pp. 404-411.

[154] Centers for Medicare & Medicaid Services, *Hospital Quality Initiative Overview*, Baltimore, MD, July 2008, http://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/HospitalQualityInits/Downloads/HospitalOverview.pdf.

[155] CMS collects data that allows patients to compare a number of measures of hospital care, including those related to wait times in EDs, such as the time elapsed between when the patient enters the ED and receives a diagnostic evaluation and receives pain medication, if indicated. CMS also collects data on the number of patients who leave without being seen. See Centers for Medicare & Medicaid Services, "Data.Medicare.gov, Timely and Effective Care-Hospital," http://www.medicare.gov/hospitalcompare/About/Timely-Effective-Care.html. It is not clear the extent to (continued...)

Hospital Inpatient Quality Reporting Program; as such, hospitals face financial penalties based on their reporting of some of the ED-related measures.[156]

Crowding may also be costly to hospitals because it can contribute to hospital-level nursing shortages. EDs often have more difficulty filling staff vacancies due to the intensity of emergency care.[157] Crowding can exacerbate this issue because it could increase staff turnover among ED nurses, leaving the hospital with more vacancies to fill. It may also leave hospitals with a more junior nursing staff because more experienced staff may be more likely to leave.[158] Researchers have found that increased patient-care demands push experienced staff to leave their jobs, in part, because of decreased job satisfaction, but also because some staff may fear that conditions are jeopardizing patient safety and are putting them at risk of losing their licenses (physicians may also have liability concerns because of these increased patient care demands).[159] Such concerns would also apply to ED physicians and may make it difficult for some hospitals to recruit and retain their services.[160] The effect of crowding on staffing and staff turnover also adds to a hospital's financial pressures, because it is costly to recruit staff and new staff requires training—for example, new ED nurses require months of training to obtain the basic skills needed to deliver ED care.[161]

Effects on Payers

Crowding may increase health care costs for payers. It may also have particular costs for the Medicare program, because it is the largest payer for inpatient care.[162] As crowding can delay treatment, it increases the likelihood that patients will experience adverse events—an injury that results from medical intervention and not the patient's underlying medical condition—which are more common in older adults.[163] Adverse events are costly to payers because they often require

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(...continued)

which patients are using these data; however, applications are publicly available for patients to access these data. See, for example, Lena Groeger, Mike Tigias, and Sisi Wei, "ER Wait Watcher: Which Emergency Room Will See You the Fastest?" at http://projects.propublica.org/emergency/.

[156] Centers for Medicare & Medicaid Services, *Hospital Quality Initiative Overview*, Baltimore, MD, July 2008, http://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/HospitalQualityInits/Downloads/HospitalOverview.pdf.

[157] Institute of Medicine of the National Academies, *Hospital-Based Emergency Care: At the Breaking Point* (Washington, DC: National Academies Press, 2006), p. 180.

[158] Adrian Boyle et al., "Emergency Department Crowding: Time for Interventions and Policy Evaluations." *Emergency Medicine International*, Volume 2012, (2012).

[159] Ben Wheatley, Rapporteur, Board on Health Care Services, Institute of Medicine, *The National Emergency Care Enterprise: Advancing Care Through Collaboration: Workshop Summary (2009)* (Washington, DC: The National Academies Press).

[160] Kent Rondeau and Louis Francescutti, "Emergency Department Overcrowding: The Impact of Resource Scarcity on Physician Job Satisfaction," *Journal of Health Care Management*, vol. 50, no. 5 (October 2005), pp. 327-340.

[161] Ben Wheatley, Rapporteur, Board on Health Care Services, Institute of Medicine, *The National Emergency Care Enterprise: Advancing Care Through Collaboration: Workshop Summary (2009)* (Washington, DC: The National Academies Press), p. 2009.

[162] Centers for Medicare & Medicaid Services, Office of the Actuary, National Health Statistics Group, *National Health Expenditures Data*, Baltimore, MD, 2012, http://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/Downloads/tables.pdf.

[163] Nancy Stephens Donatelli, Jennifer Gregorwicz, and Joan Somes, "Extended ED Stay of the Older Adult Results in Poor Patient Outcomes," *Journal of Emergency Nursing*, vol. 39, no. 3 (May 2013), pp. 268-272.

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additional medical treatment beyond the original medical condition that caused the patient to seek care in the ED.[164]

Strategies That May Reduce Crowding

A number of strategies may reduce crowding; generally, such strategies focus on ways that hospitals can reduce boarding by increasing the number of inpatient beds available.[165] For example, hospitals may consider the following strategies:

- Moving boarders to inpatient halls: doing so places boarded patients in a quieter, less crowded, and a better-staffed setting that has been shown to be safe. It also frees up emergency department beds and can expedite the patient being placed in a proper inpatient bed.

- Undertaking active bed management, by appointing a single person to track beds (e.g., a "bed czar"), by using a computer system to track beds, or other methods to address system-level bottlenecks.

- Using "reverse triage," which employs a system designed for creating capacity during disasters by discharging patients who have a low need for an inpatient bed.

- Smoothing elective surgical schedules by distributing procedures evenly over the week to decrease peaks in demand for inpatient beds and the need to cancel procedures because beds are not available.

- Implementing the "four hour rule": this rule, implemented in the United Kingdom and Western Australia, requires EDs to evaluate, treat, discharge, or admit patients in four hours or less.[166] Although this policy reduces boarding, some have raised concerns that it may reduce the quality of care because it encourages EDs and hospitals to discharge patients early, when it may not be medically appropriate.[167]

A number of current programs may also reduce boarding. For example, in 2012, CMS required hospitals to report data related to boarding and ED length of stay. The public reporting of these data and their inclusion in some CMS quality programs may provide hospitals with incentives to reduce crowding. The Medicare program requires that hospitals meet certain conditions to participate in the Medicare program (called conditions of participation).[168] One of these conditions is that hospitals must be accredited, although hospitals can choose to be accredited by

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[164] Adverse events may be complications from being in a hospital, such as falls, or they may be more serious conditions that result from a delay in treatment, such as when delayed antibiotic administration leads to sepsis. In some instances, hospitals will not be paid by Medicare for conditions that Medicare patients acquire when hospitalized (i.e., for certain hospital-acquired conditions). See https://www.cms.gov/hospitalacqcond/06_hospital-acquired_conditions.asp.

[165] Unless otherwise specified, information in this section is from Elaine Rabin et al., "Solutions to Emergency Department 'Boarding' and Crowding Are Underused and May Need to Be Legislated," *Health Affairs,* vol. 31, no. 8 (2012), pp.1757-1766.

[166] David Mountain, "Introduction of a 4-hour rule in Western Australian Emergency Departments." *Emergency Medicine Australasia*, vol. 22 no. 5 (October 2010), pp. 374-378.

[167] Sally Gillen, "Quality Indicators Expected as Care Standard Is Relaxed." *Emergency Nurse*, vol. 18, no. 4: (2010), pp. 6-7.

[168] Social Security Act §1865; 42 U.S.C. §1395bb.

a state regulatory organization, often hospitals will seek to be accredited by the Joint Commission,[169] which accredits and certifies health care organizations. The Joint Commission adopted requirements—effective January 1, 2014—that hospitals address boarding for the purposes of accreditation.[170] Both CMS's and the Joint Commission's changes are new, so the full effects are not yet known, but both policy changes may incentivize hospitals to reduce crowding.[171]

Frequent ED Users

Another issue affecting ED care is that of frequent ED users. Although no formal definition exists, for purposes of this report, a frequent user is an individual who uses an ED multiple times a year.[172] Frequent users represent a small number of ED users overall, but account for a high number of total ED visits. One study, for example, estimated that frequent users (defined in the study as individuals with three or more visits annually) represented 29% of all ED users but 60.4% of all ED visits.[173] Although most frequent ED users have high rates of chronic conditions, anecdotal evidence and media reports have fueled a misconception that frequent ED users are a disadvantaged population who unnecessarily use EDs for conditions that could be treated in an ambulatory setting.[174] Frequent users are a concern for policy makers because (1) they contribute to crowding; (2) they increase costs for payers, including government payers; and (3) their ED use may reflect poor care coordination in other settings (e.g., they lack primary care or coordinated primary and specialty care to manage their asthma and seek care at an ED for an asthma attack).

Frequent users are not a monolithic group; as such, policy options need to target the different types of frequent users.[175] Frequent ED users can be divided into three broad sub-categories, based on utilization patterns: frequent non-emergent users (i.e., people who use EDs frequently to treat conditions that do not require emergency care), high-cost health system users, and very frequent ED users. The causes of ED visits differ by the three types as do the policy levers that could be employed to reduce the number of frequent visits (see **Table 2**).

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[169] For more information, see The Joint Commission, "Hospital Accreditation," http://www.jointcommission.org/accreditation/hospitals.aspx.

[170] The Joint Commission, "Patient Flow Resources, The "Patient Flow Standard" and the 4-Hour Recommendation," http://www.jointcommission.org/accreditation/patient_flow_resources_.aspx.

[171] Elaine Rabin et al., "Solutions to Emergency Department 'Boarding' and Crowding Are Underused and May Need to Be Legislated," *Health Affairs,* vol. 31, no. 8 (2012), pp. 1757-1766.

[172] Frequent users are also called "super utilizers"; these terms are used interchangeably in this report.

[173] John Billings and Maria C. Raven, "Dispelling an Urban Legend: Frequent Emergency Department Users Have Substantial Burden of Disease," *Health Affairs*, vol. 32, no. 12 (December 2013), pp. 2099-2108.

[174] Ibid.

[175] However some frequent users share similarities such as being in poor health and having chronic conditions. A subset of frequent users are also disabled; among those with 15 or more annual ED visits, nearly two-thirds had a history of serious mental illness and substance use. See Medicaid and CHIP Payment Advisory Commission, *MAC Facts, Key Findings on Medicaid and CHIP: Revisiting Emergency Department Use in Medicaid*, Washington, DC, July 2014.

Table 2. Three Types of Frequent ED Users

Type	Characteristics of Frequent ED Users	Consequences and Solutions
Frequent Non-emergent Users	• have barriers to primary care • most have private insurance and a regular PCP • lack access to afterhours care • have lower rates of chronic illness than other frequent ED users	• costly to payers because care provided in an ED is more expensive than care provided in an ambulatory setting • health system changes to improve access can reduce the number of these users and the number of visits per user
High-Cost Health System Users	• tend to "shop" for providers • visit EDs between four and nine time per year • have substantial burdens of chronic illness (which increases as the number of visits increase) • consider themselves to be in fair-to-poor health or are severely disabled • are more likely to be between the ages of 25 and 44, or older than 64 • have high rates of underlying substance use or mental illness; however, treatment for these conditions represents a small share of visits • most visits are for injuries, hypertension, heart conditions, pneumonia or bronchitis, and mental disorders • are likely to arrive in an ambulance	• most expensive of the three types of frequent ED users because they are more likely to require more expensive inpatient care • policies that encourage care coordination can reduce this type of use • policies that target these users may also need to include social and economic issues that may present barriers to accessing health care
Very Frequent ED Users	• have 10 or more visits per year • are less likely to have a regular PCP • visit multiple EDs • make up a very small portion of all ED users • more likely to be male • have high rates of disability and/or have multiple chronic illnesses • visit often for substance use or mental illness • have complex medical, mental, economic factors contributing to ED use, such as homelessness or serious mental illness. • high rates of current or previous substance abuse, mental illness, or both	• users are costly, but are less likely to be admitted than the high-cost health system users • policies that encourage care coordination can reduce this type of use, but these patients have low provider loyalty, which needs to be accounted for when designing programs • policies that target these users may also need to include social and economic issues that may present barriers to accessing health care

Sources: John Billings and Tod Mijanovich, "Improving the Management of Care for High-Cost Medicaid Patients." *Health Affairs*, vol. 26, no. 6 (2007), pp. 1643-1654; Malcolm Doupe et al., "Frequent Users of Emergency Departments: Developing Standard Definitions and Defining Prominent Risk Factors." *Annals of Emergency Medicine*, vol. 60, no.1 (2012), pp; 24-36; Eduardo LaCalle and Elaine Rabin, "Frequent Users of Emergency Departments: The Myths, the Data, and the Policy Implications." *Annals of Emergency Medicine*, vol. 56, no.1 (2010), pp 42-48; and Anna S. Sommers, Ellyn R. Boukus, and Emily Carrier, *Dispelling Myths About Emergency Department Use: Majority of Medicaid Visits Are for Urgent or More Serious Symptoms*, Center for Studying Health System Change, No. 23, Washington, DC, July 2012.

Strategies That Target Frequent Users

As **Table 2** demonstrates, changes to the ambulatory care system to make care more accessible and coordinated can reduce frequent ED use. Such strategies include adding additional providers, opening or expanding outpatient care settings (e.g., retail clinics; see "New Types of Health Care Facilities May Change the EDs' Role"), increasing provider hours, creating or expanding nurse advice lines, and expanding or initiating health education campaigns that encourage appropriate ED use.[176] Other strategies seek to prevent the need for ED use by managing chronic conditions, coordinating care across providers, and more frequently monitoring patients.[177] These strategies may also include analytic tools (e.g., electronic health records) to share data across providers.[178]

In attempts to control costs, CMS has initiated programs that focus on Medicare or Medicaid beneficiaries who are frequent health system users. CMS calls these "super-utilizer" programs. These programs do not necessarily focus on high-ED users, but may include *High-Cost Health System Users* and the *Very Frequent ED Users* because these users are expensive. Specifically, chronically ill individuals account for 5% of the total population but nearly half of all health care spending.[179] This pattern of concentrated spending also occurs among Medicaid beneficiaries, where 1% of the Medicaid population is responsible for 22% of the spending. Although not all of this spending occurs in EDs, EDs are a gateway for hospital admissions, where the bulk of this spending occurs. As such, managing chronic conditions so that ED visits are avoided may reduce costs. CMS is undertaking initiatives focused on super-utilizers, as are private payers and providers, such as hospitals. Though specific programs employed to target super-users vary, they generally involve methods to target the most appropriate program participants by trying to identify participants who exhibit characteristics that are consistent with having high-cost, preventable health care use.[180]

Payment Methods

A number of new payment models are being tested as a way to control costs; because they include incentives to coordinate care, they may also reduce frequent users.[181] Under a fee-for-service

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[176] Washington State Health Care Authority. Report to the Legislature: Emergency Department Utilization: Update on Assumed Savings from Best Practices Implementation. March 2014, http://www.hca.wa.gov/Documents/ EmergencyDeptUtilization.pdf.

[177] Anika Hines et al., *Conditions with the Largest Number of Adult Hospital Readmissions by Payer, 2001, U.*S. Department of Health and Human Services, Agency for Healthcare Research and Quality, Healthcare Cost and Utilization Project Statistical Brief #172, http://www.hcup-us.ahrq.gov/reports/statbriefs/sb172-Conditions-Readmissions-Payer.pdf.

[178] For example, some state Medicaid programs have chosen to use their Medicaid data systems to track frequent users and have received federal matching funds to support necessary data enhancements. This program is authorized in Sec. 1903(a)(3) of the Social Security Act.

[179] Unless otherwise noted, this paragraph is drawn from Letter from Cindy Mann, Director, Center for Medicaid and CHIP Services, "Targeting Medicaid Super-Utilizers to Decrease Costs and Improve Quality," July 24, 2013, http://medicaid.gov/Federal-Policy-Guidance/Downloads/CIB-07-24-2013.pdf.

[180] Patients may also be targeted for inclusion in super utilizer programs because they have frequent ED visits, are referred to the program by medical personnel, they have costly underlying medical conditions (e.g., cancer), or they have sociodemographic characteristics consistent with high use, among others.

[181] Some state Medicaid programs have also tried to reduce ED use by instituting copayments for non-emergency ED use. The effects of these copayments on reducing ED use are mixed because it is difficult to identify non-emergency use prospectively. See Medicaid and CHIP Payment Advisory Commission, *MAC Facts, Key Findings on Medicaid and CHIP: Revisiting Emergency Department Use in Medicaid*, Washington, DC, July 2014.

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payment scheme, providers receive additional compensation for providing additional care, which may incentivize providing additional services to frequent users rather than coordinating care and seeking to prevent ED use for this group. Under alternate payment models that reward care coordination or provide incentives to achieve certain performance targets, providers lack such incentives. A number of the strategies undertaken to reduce super-users involve testing new payment methods (see **Text Box 4**).

Text Box 4: Example Payment Models

- **Case Management Payment:** Fixed payment per-member-per-month to fund care coordination.

- **Multi-Payer Case Management Payment:** Payment for care coordination from the respective payer for each patient.

- **Per-Episode of Care Payment for Program Services:** Payment for each episode of care that is based on complexity of the patient.

- **Per-Member Per-Month:** A payment to a managed care organization that is used to fund both medical and behavioral health services that is adjusted to account for the patient's health status.

- **Shared Savings for Total Cost of Care**: A generally time-limited capitated payment to an agency to provide care to a group of patients. If the cost of providing care is less than the capitated payment, the agency gets a portion of the savings.

Source: Letter from Cindy Mann, Director Center for Medicaid and CHIP Services, "Targeting Medicaid Super-Utilizers to Decrease Costs and Improve Quality," July 24, 2013, http://medicaid.gov/Federal-Policy-Guidance/Downloads/CIB-07-24-2013.pdf.

Federally Supported Care Coordination Models

The federal government has provided explicit support for the Medicare program and for state Medicaid programs to develop care coordination programs, that may, among other policy goals, reduce the number of super-utilizers by managing chronic conditions to reduce the number of times these patients seek ED care. Such federal support includes the following examples:

- **Accountable Care Organizations (ACOs)** are groups of health care providers that join together to provide coordinated care to a group of Medicare beneficiaries in exchange for a share of any savings realized from coordinating such care.[182] ACOs are eligible for shared savings if the Medicare spending for assigned beneficiaries falls below a historical benchmark and if they meet certain quality benchmarks.

- **Bundled Payment for Care Improvement Initiative (BPCI):** Selected health care organizations participate in a new payment model where the health care organizations are reimbursed for episodes of care. These payment arrangements aim to provide high-quality coordinated care.[183]

- **Medicaid Health Homes:** States may receive a higher Federal Medical Assistance Percentage (FMAP)—the percentage of the state's Medicaid program

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[182] ACOs (Shared Savings Program) were established in Section 1899; (42 U.S.C. §1395jjj of the Social Security Act (SSA)). See CMS, "*What's an ACO?*" http://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/ACO/index.html?redirect=/ACO.

[183] Centers for Medicare & Medicaid Services, "Bundled Payments for Care Improvement (BCPI) Initiative: General Information," http://innovation.cms.gov/initiatives/bundled-payments/.

that the federal government pays[184]—to support interdisciplinary care provided by the health home team.[185]

- **Targeted Case Management:** States may add a Targeted Case Management (TCM) service to their Medicaid program to enhance existing health home or managed care models.[186]

Behavioral Health Care in EDs

EDs face two distinct behavioral health care challenges. The first is that EDs may be ill-equipped to treat patients who are primarily seeking care to treat a behavioral health condition. The second is that an increasing number of patients with physical health conditions also have behavioral health conditions, which makes treating their physical ailments more difficult.[187] In general, EDs are strained to provide the former and are challenged in providing the latter because these cases are resource-intensive and exacerbate already crowded conditions. The number of behavioral health- only visits has also increased rapidly, with the number of these visits growing at a rate four times higher than the growth in non-behavioral health visits.[188] Mental health and substance use disorders are generally not appropriate to treat in an ED because they are not acute conditions; instead, they require treatment and monitoring over time, which is not in concert with the type of services that EDs are designed to provide.[189] The major exception to this is an acute episode: either an acute psychiatric episode or an overdose or adverse drug reaction for individuals with substance use issues. These cases often present in an ED; they may be symptomatic of uncontrolled behavioral health conditions, but often an ED is the proper site of care in these instances.

Causes of Increased Behavioral Health Treatment in EDs

Generally, patients with behavioral health conditions present in an ED because of insufficient community resources available to manage the patients' needs. A number of communities have shortages of mental health and substance abuse services. Such shortages may also be underestimated because rates of both behavioral health conditions are underreported.[190] Community level conditions such as increases in drug use in certain communities (e.g., the recent

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[184] CRS Report R42941, *Medicaid's Federal Medical Assistance Percentage (FMAP), FY2014*.

[185] See ACA Sec. 2703 described in CRS Report R41210, *Medicaid and the State Children's Health Insurance Program (CHIP) Provisions in ACA: Summary and Timeline*. For states that focus care on Medicaid-Medicare enrollees, the Medicare Medicaid Coordination Office (MMCO) provides data access and free Medicare assistance.

[186] This program is authorized in SSA Sec. 1915(g) (42 U.S.C. §1396m). For more information, see Letter from Cindy Mann, Director Center for Medicaid and CHIP Services, "Targeting Medicaid Super-Utilizers to Decrease Costs and Improve Quality," July 24, 2013, http://medicaid.gov/Federal-Policy-Guidance/Downloads/CIB-07-24-2013.pdf.

[187] R.M. Coffey, *Emergency Department Use for Mental Health and Substance Use Disorders*, U.S. Agency for Healthcare Research and Quality (AHRQ), Rockville, MD, August 23, 2010, http://www.hcup-us.ahrq.gov/reports/ED_Multivar_Rpt_Revision_Final072010.pdf.

[188] Peter J. Cunningham, Kelly McKenzie, and Erin Fries Taylor, "The Struggle to Provide Community-Based Care to Low-Income People with Serious Mental Illness." *Health Affairs*, vol. 25, no.3 (2006), pp. 694-705.

[189] R.M. Coffey, *Emergency Department Use for Mental Health and Substance Use Disorders*, U.S. Agency for Healthcare Research and Quality (AHRQ), Rockville, MD, August 23, 2010, http://www.hcup-us.ahrq.gov/reports/ED_Multivar_Rpt_Revision_Final072010.pdf.

[190] Ibid.

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increases in heroin use in certain communities) may also affect ED use for behavioral health conditions, as individuals who overdose or have adverse drug reactions may present to EDs.[191]

Insurance coverage may also contribute to behavioral health conditions being seen in EDs. An AHRQ/SAMSHA study found that uninsured individuals with behavioral health conditions were most likely to have had multiple ED visits during the course of a year. Among those seen in the ED, these individuals were least likely to be admitted.[192] This study also found that the likelihood of admission varied by patient characteristics (such as demographic characteristics), insurance status, and the size of the hospital (larger hospitals offered more specialty services and were more likely to admit patients). The use of an ED to provide behavioral health care, in particular for the uninsured population, may also contribute to the financial constraints that EDs face, as some of this care may be uncompensated.

Effects of Treating Behavioral Health Care in an ED

One of the major effects of treating behavioral health care in an ED is crowding. This occurs because EDs that lack behavioral health resources may board these patients while waiting to transfer them to an appropriate facility.[193] Such facilities are in short supply; therefore, some behavioral health patients may end up waiting in an ED for hours and often days for an available bed.[194] Patients with behavioral health conditions may also contribute to crowding because they may be more difficult to care for, thus requiring more staff resources than a patient without a behavioral health condition. Being treated in an ED may also be particularly stressful for individuals with certain mental health conditions because EDs by their very nature are chaotic. This might exacerbate certain mental health conditions. Treating these behavioral health patients in an ED may also be challenging because EDs lack many of the services that these patients need. For example, behavioral health patients often require consults from specialists (e.g., psychiatrists) who may not be on-site so patients must wait in the ED for such consults. Or EDs may not have needed detoxification services.

Treating behavioral health care in an ED could also contribute to crowding because emergency room procedures to triage patients with psychiatric conditions are less well-developed than those used to triage patients with physical ailments, which may complicate and delay treatment for patients.[195] Research has also found that ED providers do not feel comfortable providing care to

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[191] CRS Insight IN10032, *U.S. Opioid Epidemic: The Role of Heroin.*

[192] R.M. Coffey, *Emergency Department Use for Mental Health and Substance Use Disorders*, U.S. Agency for Healthcare Research and Quality (AHRQ), Rockville, MD, August 23, 2010, http://www.hcup-us.ahrq.gov/reports/ ED_Multivar_Rpt_Revision_Final072010.pdf.

[193] Centers for Medicare & Medicaid Services, Extract of Final Report of the Emergency Medical Treatment and Labor Act Technical Advisory Group to the Secretary of the U.S. Department of Health and Human Services, Washington, DC, April 2, 2008, https://www.cms.gov/Regulations-and-Guidance/Legislation/EMTALA/downloads/ EMTALA_Final_Report_Summary.pdf.

[194] Peter J. Cunningham, Kelly McKenzie, and Erin Fries Taylor, "The Struggle to Provide Community-Based Care to Low-Income People with Serious Mental Illness." *Health Affairs*, vol. 25, no.3 (2006), pp. 694-705.

[195] See discussion in Anne Manton, *Care of the Psychiatric Patient in the Emergency Department*, Emergency Nurses Association, white paper, Des Plaines, IL, February 2013, http://www.ena.org/practice-research/research/Documents/ WhitePaperCareofPsych.pdf, p. 1.

emergency psychiatric patients, have received less training to do so, and believe that these patients may be more violent to ED staff.[196]

Strategies to Reduce ED Use for Behavioral Health Conditions

The availability of community behavioral health treatment can reduce the use of EDs for patients. For example, an AHRQ-SAMSHA study found that counties with community mental health centers had fewer ED visits for mental health conditions, as did counties with inpatient psychiatric and chemical dependency treatment facilities, which had fewer ED visits for people with behavioral health conditions.[197] Hospitals themselves can make inpatient psychiatric beds available or can create relationships with chemical dependency treatment facilities to which they can discharge ED patients with behavioral health conditions. Programs that seek to increase access to behavioral health care (see "Behavioral Health Support") can also reduce ED use.

Insurance coverage may also influence ED use for behavioral health services. For example, some treatment facilities do not accept Medicaid patients, so Medicaid patients often have fewer treatment options and may present to an ED. The implementation of the ACA, which requires behavioral health coverage by some private insurance plans,[198] coupled with federal parity requirements, should increase coverage for behavioral health conditions.[199] Increased coverage if coupled with access to community level providers could reduce ED use for behavioral health conditions because conditions would be better managed. It is unclear whether this would occur because federal parity requirements do not require all plans to include behavioral health coverage[200] and because provider shortages may prevent individuals who gain coverage to access behavioral health care services.[201]

Policy Levers Available to Congress

To alleviate some of the issues raised regarding emergency care, Congress might consider using various policy levers, including (1) oversight, (2) reimbursement changes to federal programs, (3) directed spending, (4) changes to statutory mandates, and (5) watchful waiting. Congress may also consider a combination of these levers. The discussion below is not exhaustive, but it

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[196] Lisa A. Wolf, Altair M. Delao, and Cydne Perhats, "Nothing Changes, Nobody Cares: Understanding the Experience of Emergency Nurses Physically or Verbally Assaulted While Providing Care," *Journal of Emergency Nursing*, vol. 40, no. 4 (July 2014), pp. 305-310; and Anne Manton, *Care of the Psychiatric Patient in the Emergency Department*, Emergency Nurses Association, white paper, Des Plaines, IL, February 2013, http://www.ena.org/practice-research/research/Documents/WhitePaperCareofPsych.pdf.

[197] R.M. Coffey, *Emergency Department Use for Mental Health and Substance Use Disorders*, U.S. Agency for Healthcare Research and Quality (AHRQ), Rockville, MD, August 23, 2010, http://www.hcup-us.ahrq.gov/reports/ED_Multivar_Rpt_Revision_Final072010.pdf.

[198] Certain plans that existed prior to the ACA are not subject to these requirements; see CRS Report R43048, *Overview of Private Health Insurance Provisions in the Patient Protection and Affordable Care Act (ACA)*.

[199] CRS Report R41768, *Mental Health Parity and Mandated Coverage of Mental Health and Substance Use Disorder Services After the ACA*.

[200] Ibid.

[201] See discussion of mental health professional shortage areas in CRS Report R43255, *The Mental Health Workforce: A Primer*.

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represents options that Congress may consider to address some of the emergency care concerns raised in this report.

Oversight

Congress has oversight of executive branch agencies, which it may leverage to improve ED operations. For example, it could conduct oversight hearings on topics related to ED care, or it could investigate the efforts of involved federal agencies to improve ED care. Congress has used its oversight in this area in the past; for example, it has commissioned GAO reports in this area.[202] Congress may consider holding a hearing (or a series of hearings) on topics related to ED care. Congress may also consider requesting a report or reports in this area, to be undertaken by the involved federal agencies (e.g., CMS, SAMSHA), GAO, or another entity. Such oversight might motivate HHS to address some of the considerations discussed in this report, even in the absence of other congressional activity.

Changes to Federal Program Requirements

As mentioned, hospitals must meet certain conditions, including being accredited by the Joint Commission or another entity,[203] to participate in the Medicare program (called conditions of participation).[204] Medicare can influence hospital processes by amending its conditions of participation and requiring the Joint Commission to accredit hospitals based on this amended criteria. For example, as part of its accrediting process, the Joint Commission requires that hospitals develop procedures for boarding, including the boarding of psychiatric patients.[205] To improve ED function, the Medicare program could encourage (or require) the Joint Commission to amend its accreditation criteria to encourage or require hospital-level changes that would affect ED flow, such as placing a cap on the number of elective admissions a hospital can have when the ED is boarding patients, or requiring that hospitals smooth their elective surgery schedule so that surgeries are scheduled throughout the week instead of clustered on certain days.[206]

Medicare could also consider amending its conditions of participation to improve ED functioning in emergencies. This strategy is currently under consideration as CMS proposed, in December of 2013, to strengthen emergency preparedness requirements for all Medicare and Medicaid participating hospitals. The new conditions of participation would require hospitals to have emergency preparedness programs and emergency preparedness plans.[207]

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[202] GAO-09-347.

[203] For more information, see The Joint Commission, "Hospital Accreditation," http://www.jointcommission.org/accreditation/hospitals.aspx.

[204] Social Security Act §1865; 42 U.S.C. §1395bb.

[205] The Joint Commission, "Patient Flow Resources, "The 'Patient Flow Standard' and the 4-Hour Recommendation," http://www.jointcommission.org/accreditation/patient_flow_resources_.aspx.

[206] For more information about the effect of elective surgery scheduling on ED boarding, see Elaine Rabin et al., "Solutions to Emergency Department 'Boarding' and Crowding Are Underused and May Need to Be Legislated," *Health Affairs,* vol. 31, no. 8 (2012), pp.1757-1766.

[207] CMS, "Medicare and Medicaid Programs; Emergency Preparedness Requirements for Medicare and Medicaid Participating Providers and Suppliers," 78 *Federal Register* 79082, December 27, 2013.

Directed Spending

Congress may consider providing funding to support programs or payments that may alleviate ED delivery issues. Congress could do so either through entitlement programs, such as Medicare and Medicaid, or through discretionary programs. In some cases, statutory changes may be required to create new programs or to extend funding in cases where authorized funding has expired.

Spending and Reimbursement Through Mandatory Programs

A number of the challenges that EDs face are financial. As such, the federal government may consider whether hospitals require additional funding to support ED services or whether current funding sources (e.g., Medicare and Medicaid reimbursements) are sufficient. For example, some hospitals provide uncompensated care to individuals who are not eligible for Medicaid because of their immigration status. Though funds had been appropriated to defray the cost of this care, they have not been appropriated since FY2010; however, hospitals may be able to discharge some of their ED spending for those ineligible for Medicaid because of their immigration status through "Emergency Medicaid."[208] Congress could consider whether "Emergency Medicaid" is sufficient or could consider appropriating targeted funds to support hospitals that provide high volume of uncompensated care to undocumented immigrants, similar to the program that existed until FY2010. Congress could also consider the current system of DSH payments and whether such payments are sufficient and/or whether these payments are adequately targeted so that the hospitals with the highest burdens of uncompensated care receive these payments. Congress could consider whether a different funding source that provides explicit funding for emergency care under EMTALA is warranted, as an expert group that reviewed EMTALA requirements recommended.[209] As discussed, efforts to prevent ED use may lower costs; as such, Congress may wish to consider whether past efforts—such as the Emergency Room Diversion Grant program[210]—that aim to reduce ED use by increasing the services available to Medicaid beneficiaries were successful at reducing ED use and whether such efforts should be continued and/or expanded. Congress may also wish to examine whether current efforts that seek to reduce ED use by coordinating care and preventing exacerbations of chronic conditions are sufficient and if such efforts should be expanded.

Congress may also consider changes to reimbursement policies in federal programs that affect ED functioning. For example, Emergency Medical Services (EMS) brings patients to an ED who could have been stabilized elsewhere because, in some cases, EMS systems are not reimbursed unless the patient is brought to a hospital. This reimbursement policy may create incentives to

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[208] 42 C.F.R. §440.255 "Limited services available to certain aliens."

[209] Centers for Medicare & Medicaid Services, Extract of Final Report of the Emergency Medical Treatment and Labor Act Technical Advisory Group to the Secretary of the U.S. Department of Health and Human Services, Washington, DC, April 2, 2008, https://www.cms.gov/Regulations-and-Guidance/Legislation/EMTALA/downloads/ EMTALA_Final_Report_Summary.pdf. The ACA authorized a program that would provide funding to trauma centers based on the amount of uncompensated care that its ED provides. This program has not received appropriations; if appropriations were to be made available, the program would not provide funds to EDs that do not have trauma centers. For more information about this program, see CRS Report R41278, *Public Health, Workforce, Quality, and Related Provisions in ACA: Summary and Timeline.*

[210] U.S. Department of Health and Human Services, Centers for Medicare & Medicaid Services, *Emergency Room Diversion Grant Program*, Baltimore, MD, 2013, http://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Delivery-Systems/Grant-Programs/ER-Diversion-Grants.html.

transport patients to an ED in instances when it may not be medically necessary to do so.[211] Experts suggest that changes to reimbursement policy could mean that fewer patients are transported to EDs, thereby reducing ED crowding and lowering costs in general.[212]

Some have suggested that Medicaid psychiatric hospitals reimbursement policies constrain the supply of available psychiatric beds and that those reimbursement policies should be amended.[213] Medicaid prohibits payment to Institutions for Mental Disease (IMDs) for services rendered to adults between the ages of 22 and 64.[214] IMDs are inpatient facilities with more than 16 beds and a patient roster in which more than half of the patients have severe mental illness. Some suggest that this exclusion makes it difficult to obtain care for individuals in this age range with Medicaid coverage.[215] The Medicaid IMD exclusion may contribute to ED crowding in two ways: (1) it constrains treatment options, leading individuals to seek care in an ED, and (2) once an individual seeks care in the ED, it constrains discharge options, which may lead to boarding.

Spending Through Discretionary Programs

Hospitals face a number of challenges related to providing primary and behavioral health care in part because of provider shortages. The federal government makes investments in supporting primary care both at the facility and at the provider level. Options could be considered to target these investments in areas where EDs are particularly crowded or where ED use for primary care is particularly common. Similar strategies could be employed for targeting federal behavioral health investments. Some recent evidence suggests that urgent care centers that focus on treating the mentally ill have reduced ED use in certain areas;[216] policy makers could evaluate whether such centers could be expanded and whether federal investments are needed to do so.

ED use is also particularly common among the homeless population, which often lacks other sources of care or may have untreated behavioral health care needs. Although the federal government supports health centers for the homeless,[217] some homeless individuals may seek care in EDs or may be brought to EDs by law enforcement during a psychiatric episode. Research on frequent users has found that homelessness is an underlying cause of frequent ED use.[218] Congress may consider, as a way of reducing ED use (and associated costs), providing additional resources to support health care for the homeless or by providing resources to better coordinate health and social services.

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[211] Kristy Gonzalez Morganti et al., "The State of Innovative Emergency Medical Service Programs in the United States," *Prehospital Emergency Care*, vol. 18, no. 1 (January/March 2014), pp. 76-85.

[212] Ibid.

[213] National Alliance on Mental Illness, "Policy Topics: Background Information on IMD Exclusion," http://www.nami.org/Template.cfm?Section=Issue_Spotlights&template=/ContentManagement/ContentDisplay.cfm&ContentID=44050.

[214] Ibid and CRS Report R43328, *Medicaid Coverage of Long-Term Services and Supports*, by Kirsten J. Colello.

[215] Ibid.

[216] Anna Gorman, "Urgent Care Centers Opening for People with Mental Illness," *Capsules: The KHN Blog*, August 28, 2014.

[217] For more information, see CRS Report R42433, *Federal Health Centers*.

[218] Barbara Y. DiPietro, Dana Kindermann, and Stephen M. Schenkel, "Ill, Itinerant, and Insured; The Top 20 Users of Emergency Departments in Baltimore City," *The Scientific World Journal*, vol. 2012 (2012).

In addition to specific funding to hospitals for services provided, Congress could consider providing support for emergency care research or the emergency care workforce. Currently the NIH has the Office of Emergency Care Research (OECR)[219] to coordinate emergency care research. This office does not have dedicated funding to support general research on emergency care. Instead, NIH/OECR coordinates research on emergency care needed to treat specific diseases or populations. As such, there is little support for research that focuses on emergency care as a system; such research may be useful to develop policies or procedures that could alleviate ED delivery system concerns. Congress may also wish to consider whether the current emergency care workforce is sufficient; and if Congress determines that it is not, it may wish to consider providing support to develop and sustain the emergency care workforce.[220]

Congress may also consider appropriating funds to support the development of crowding quality measures. At present, a number of measures are used to quantify crowding, such as the Emergency Department Work Index, or ED occupancy rate;[221] CMS also collects data on similar measures such as LWBS, and "time spent in the ED before being sent home,"[222] but these measures do not reflect the full scope of crowding because they do not reflect the full input-throughput-output model of crowding.

Changes to Statutory Mandates

EMTALA is the major federal statutory mandate that governs ED care.[223] As such, Congress may consider a number of statutory changes to EMTALA that could improve the flow of ED patients. Specifically, it could consider implementing a number of recommendations made by the EMTALA Technical Advisory Group (TAG) to the HHS Secretary in 2007.[224] The TAG made the following recommendations, which could address some of the issues raised in this report:[225]

- Require hospitals with specialized behavioral health capabilities, to accept the transfer of patients who are gravely disabled or a danger to themselves or others,

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[219] For more information, see National Institutes of Health, National Institute of General Medical Sciences, "Office of Emergency Care Research," September 8, 2014, http://www.nigms.nih.gov/About/Overview/OECR/Pages/default.aspx.

[220] Section 1251 of the Public Health Service Act authorizes funding for residency training in emergency medicine; authorization for these grants expired in FY2012 and this program is not currently funded. In addition, the ACA authorized a program to train physicians in trauma care, which is more specific than emergency care. For a description of this program, see CRS Report R41278, *Public Health, Workforce, Quality, and Related Provisions in ACA: Summary and Timeline*.

[221] Adrian Boyle, et al., "Emergency Department Crowding: Time for Interventions and Policy Evaluations." *Emergency Medicine International*, Volume 2012, (2012).

[222] For more information and measures, see Centers for Medicare & Medicaid Services, "Data.Medicare.gov, Timely and Effective Care-Hospital," http://www.medicare.gov/hospitalcompare/About/Timely-Effective-Care.html.

[223] A number of state laws also regulate emergency care.

[224] Section 945 of the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (P.L. 108-173) required the HHS Secretary to establish a technical advisory group (TAG) to advise the Secretary about issues related to the regulation and implementation of EMTALA. The group's charter expired in 2007.

[225] Unless otherwise noted, this list is drawn from Centers for Medicare & Medicaid Services, Extract of Final Report of the Emergency Medical Treatment and Labor Act Technical Advisory Group to the Secretary of the U.S. Department of Health and Human Services, Washington, DC, April 2, 2008, https://www.cms.gov/Regulations-and-Guidance/Legislation/EMTALA/downloads/EMTALA_Final_Report_Summary.pdf.

or who have an emergent medical condition, if the receiving hospital has the resources and capacity to provide appropriate care.

- Amend the EMTALA statute to include liability protection for hospitals, physicians, and other licensed independent practitioners who provide services to patients as part of the hospital's EMTALA requirement. Others have suggested providing broader liability protections that are not exclusive to providers serving under the hospital's EMTALA requirements, but that would apply to EMTALA care (see **Text Box 5**).

- Require that hospitals and medical staff develop and revise an annual plan for on-call coverage that includes, at a minimum, evaluation of the following factors: (1) advertised and licensed hospital capabilities and services provided, (2) community demand for ED services as determined by ED visits, (3) transfers out of hospital for emergency services, (4) physician resources, and (5) past call plan performance.

Text Box 5: Standard of Care

Some policy makers have considered specifying standards of care that health care providers must provide (e.g., providers must adhere to standard clinical guidelines) and would require that medical liability claims be reviewed to determine whether the health care provider followed these guidelines. Such standards/guidelines are intended to reduce the number of medical liability claims. Although such standards would apply to health care providers broadly, they may lessen the liability concerns of ED physicians (and on-call specialists).

Sources: See, for example, in the 113th Congress, H.R. 4106, H.R. 4757, and S. 1769 and Table A-1 in CRS Report R41661, *Medical Malpractice Liability Reform: Legal Issues and 50-State Surveys on Tort Reform Proposals.*

In addition to the TAG's recommendation, Congress may also consider amending the EMTALA statute or the regulations that implement EMTALA to specify that if an ED does not have the capacity to take on additional patients, but the hospital has available inpatient capacity, the inpatient unit must board the patients who would have otherwise been boarded in the ED.[226]

Watchful Waiting

Watchful waiting is an option that is always available to Congress. If, for example, Congress determines that many of the challenges that EDs face are driven by the uninsured population or by fragmented care in the delivery system, Congress may consider waiting to see whether the implementation of the ACA's insurance expansion or the ACA's care coordination initiatives alleviate some or all of the current challenges. For this or a number of other reasons, Congress may allow the situation to unfold without further congressional involvement.

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[226] Some facilities have instituted policies that place ED boarding patients in the hallways of inpatient units; although this is not an ideal solution, it frees up ED resources to receive incoming ambulances, and the patients who are boarded in the inpatient unit receive care from inpatient care staff. For more information, see Elaine Rabin et al., "Solutions to Emergency Department 'Boarding' and Crowding Are Underused and May Need to Be Legislated," *Health Affairs,* vol. 31, no. 8 (2012), pp.1757-1766.

Concluding Observations

Improving how EDs function will require system-wide changes in health care delivery, as ED care is affected by a number of factors in the health care delivery system beyond an ED's control. Doing so may have the corollary benefit of reducing health care costs, because ED care is more costly than providing similar treatment in an outpatient setting. In addition, the current delivery challenges that EDs face increase costs because they delay patients' access to timely services. A number of health system factors affect ED care, including insurance coverage; the availability of inpatient hospital care; and the availability of outpatient providers, in general, after hours, and their willingness to accept particular insurance types. Several of these health system factors are in flux, and how such changes play out may improve or harm ED function. For example, the growth of urgent care, retail clinics, and efforts to expand access to insurance and better coordinate care may improve ED operations, but these changes may have unintended consequences and may not affect all EDs equally. Delivery system changes are also occurring in the midst of population-level changes, which may increase the need for ED services because the population is aging with higher rates of chronic disease. Taken together, the issue of ED use and its functioning may require monitoring because a number of the variables that affect it are evolving.

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California Public Mental Health Service Sites and Facility Types: A Summary

Prepared by Kirsten Barlow for the California Hospital Association

August 27, 2019

Site/Facility Type	Coverage and Service Description	Licensing/Certification Roles and Requirements	Role in the Lanterman-Petris-Short (LPS) Act[1]	Key Limitations
Residential Treatment Services	*County Medi-Cal Specialty Mental Health – Mental Health Plan (MHP)* Recovery focused rehabilitative services, provided in a non-institutional, residential setting, for beneficiaries who would be at risk of hospitalization or other institutional placement if they were not in the residential treatment program. Includes a range of activities and services that support beneficiaries in their efforts to restore, improve, and/or preserve interpersonal and independent living skills and to access community support systems that support recovery and enhance resiliency. This service is available 24 hours a day, seven days a week.	Licensed by the California Department of Social Services (CDSS). The mental health program components are certified by California Department of Health Care Services (DHCS). Adult residential treatment services must have a clearly established site for services, although all services need not be delivered at that site.	N/A	Not provided in an Institution for Mental Disease (IMD).[2]

[1] The Lanterman-Petris-Short Act (WIC § 5000-5556) is the California law governing the involuntary civil commitment of individuals who – as a result of a mental health disorder - pose a danger to self, a danger to others, or who are gravely disabled and require evaluation and treatment. State law outlines the requirements for designating facilities for evaluation and treatment of individuals who are involuntarily detained as well as designating professional persons to take, or cause to be taken, a person into custody.

[2] An IMD facility, statutorily defined in federal law, has more than 16 beds and primarily provides services to individuals with mental diseases, which includes alcohol and substance use disorders. No federal Medicaid financial participation is available for services furnished in facilities with more than 16 beds to beneficiaries who are ages 21 to 64.

Site/Facility Type	Coverage and Service Description	Licensing/Certification Roles and Requirements	Role in the Lanterman-Petris-Short (LPS) Act[1]	Key Limitations
Mental Health Rehabilitation Centers (MHRCs)	MHRCs are authorized by California statues (the Bronzan-McCorquodale Act) and are not covered by Medi-Cal or Medicare. An MHRC is a 24-hour program that provides intensive support and rehabilitation services designed to assist persons 18 years or older with mental health disorders, who would have otherwise been placed in a state hospital or another mental health facility, to develop the skills to become self-sufficient and capable of increasing levels of independent functioning. The objective is to provide a rehabilitation and activity program to improve adaptive functioning and enable clients to move into a less restrictive environment while preventing regression to a lower level of functioning.	Licensed by DHCS.	N/A	N/A
Skilled Nursing Facilities with Special Treatment Programs (SNF-STPs)	SNF-STPs operate under California regulations. In order for a SNF to be certified as an STP, it must meet the licensing and certification requirements of CDPH. It is necessary that the facility be licensed as a Medicaid-certified SNF. STP services are those therapeutic services provided to "mentally disordered persons having special needs in one or more of the following areas: self-help skills, behavioral adjustment, and interpersonal relationships. They include pre-vocational preparation and pre-release planning. Other program services include group and individual counseling; instruction on personal care and medication management; use of community and personal resources."	Licensed by CDPH.	N/A	IMD exclusion applies. IMD services may be reimbursed by Medicare. However, long-term nursing care is limited to a maximum of 100 days following a qualifying hospital stay.

Site/Facility Type	Coverage and Service Description	Licensing/Certification Roles and Requirements	Role in the Lanterman-Petris-Short (LPS) Act[1]	Key Limitations
Crisis Intervention Services	*County Medi-Cal Specialty Mental Health – Mental Health Plan (MHP)* An unplanned, expedited service to address a condition that requires more timely response to a regularly scheduled visit. Crisis intervention is an emergency response service enabling a beneficiary to cope with a crisis, while assisting the beneficiary in regaining their status as a functioning community member. Services include assessment, collateral, and therapy. The goal of crisis intervention is to stabilize an immediate crisis within a community or clinical treatment setting.	Provider must have Medi-Cal Specialty Mental Health certification by the county Mental Health Plan (MHP). Services may be provided face-to-face, by telephone, or by telemedicine with the beneficiary and/or significant support persons, and also may be provided in a clinic setting or anywhere in the community.	A professional person offering crisis intervention services may be LPS designated by a county to take, or cause to be taken, a person into custody under the LPS Act. This includes designated members of a mobile crisis team.	IMD exclusion applies. Services must last less than 24 hours.
Crisis Stabilization Services	*County Medi-Cal Specialty Mental Health – Mental Health Plan (MHP)* An unplanned, expedited service lasting less than 24 hours, to or on behalf of a beneficiary, to address an urgent condition requiring immediate attention that cannot be adequately or safely addressed in a community setting. The goal of crisis stabilization is to avoid the need for inpatient services which, if the condition and symptoms are not treated, present an imminent threat to the beneficiary or others, or substantially increase the risk of the beneficiary becoming gravely disabled.	Provider must have Medi-Cal Specialty Mental Health certification by the county Mental Health Plan (MHP). Must be provided on site at a licensed 24-hour health care facility, at a hospital-based outpatient program, or at a provider site certified by DHCS to perform crisis stabilization.	A professional person offering crisis stabilization services may be LPS-designated to take, or cause to be taken, a person into custody. A "Crisis Stabilization Unit" (CSU) may be designated by the county as a designated facility for evaluation and treatment under the LPS Act.	Maximum number of hours claimable in a 24-hour period is 20 hours.

Site/Facility Type	Coverage and Service Description	Licensing/Certification Roles and Requirements	Role in the Lanterman-Petris-Short (LPS) Act[1]	Key Limitations
Crisis Residential Treatment Services	County Medi-Cal Specialty Mental Health – Mental Health Plan (MHP) Therapeutic or rehabilitative services provided in a non-institutional residential setting which are provided as a structured, short-term program as an alternative to hospitalization for beneficiaries experiencing an acute psychiatric episode or crisis who do not have medical complications requiring nursing care. Service are available 24 hours a day, 7 days a week and structured day and evening services are available all 7 days.	Licensed as "social rehabilitation" facilities by Department of Social Services. Provider must have Medi-Cal Specialty Mental Health certification by county Mental Health Plan (if county-owned, DHCS certifies).	N/A	Maximum duration is 3 months.
Psychiatric Health Facility (PHF) Services	County Medi-Cal Specialty Mental Health – Mental Health Plan (MHP) A PHF is a health facility that provides 24-hour inpatient care for people with mental health disorders or other persons whose physical health needs can be met in an affiliated hospital or in outpatient settings. Therapeutic and/or rehabilitative services including one or more of the following are available: psychiatric, psychosocial, counseling services, psychiatric nursing services, social services, and rehabilitation services. Services are provided under a multidisciplinary model.	Licensed by DHCS. Provider must have Medi-Cal Specialty Mental Health certification by county Mental Health Plan (if county-owned, DHCS certifies).	A PHF may be designated by the county as a designated facility for evaluation and treatment under the LPS Act.	IMD exclusion applies. Federal Medicaid reimbursement excludes room and board.

Site/Facility Type	Coverage and Service Description	Licensing/Certification Roles and Requirements	Role in the Lanterman-Petris-Short (LPS) Act[1]	Key Limitations
Psychiatric inpatient hospital services in a Freestanding Acute Psychiatric Hospital (FAPH)	*Medicare and County Medi-Cal Specialty Mental Health – Mental Health Plan (MHP)* Psychiatric inpatient hospital services are both acute psychiatric inpatient hospital services and administrative day services provided in a hospital. Acute psychiatric inpatient hospital services are those services provided by a hospital to Medi-Cal beneficiaries for whom the facilities, services, and equipment are medically necessary for diagnosis and treatment of a mental disorder. A FAPH is a hospital having a duly constituted governing body with overall administrative and professional responsibility and an organized medical staff which provides 24-hour inpatient care for mentally disordered, incompetent, or other patients. Administrative day services are provided to a beneficiary who has been admitted to the hospital for acute psychiatric inpatient hospital services, and the beneficiary's stay at the hospital must be continued beyond the beneficiary's need for acute services due to a temporary lack of placement options that meet the needs of the beneficiary.	Licensed and certified by the CDPH.	May be designated by the county as a designated facility for evaluation and treatment under the LPS Act.	A FAPH shall not include separate buildings which are used exclusively to house personnel or provide activities not related to hospital patients. IMD exclusion applies. Medicare coverage for psychiatric hospitalization includes a lifetime maximum of 190 days.

Site/Facility Type	Coverage and Service Description	Licensing/Certification Roles and Requirements	Role in the Lanterman-Petris-Short (LPS) Act[1]	Key Limitations
Psychiatric inpatient hospital services in a General Acute Care Hospital (GACH)	Medicare and County Medi-Cal Specialty Mental Health – Mental Health Plan (MHP) See FAPH above. The amount, duration, and scope of Medi-Cal coverage for psychiatric inpatient hospital services is the same whether delivered in a FAPH or a GACH. A GACH may include more than one physical plant maintained and operated on separate premises. Hospitals with a consolidated license must meet certain requirements, including a single governing body, single administration, and single medical staff, and located not more than 15 miles apart.	Licensed and certified by CDPH.	May be designated by the county as a designated facility for evaluation and treatment under the LPS Act.	Note: IMD exclusion *does not apply.* Medicare coverage for psychiatric hospitalization includes a lifetime maximum of 190 days.

October 16, 2019

TO: CHA EMS/T Committee

FROM: BJ Bartleson, RN, MS, NEA-BC, Vice President Nursing & Clinical Services

SUBJECT: Geriatric ED

SUMMARY

Based upon research done for a report on hospital ED trends by an Agency for Healthcare Research and Quality, people ages 65 and older are the most likely to visit US emergency departments. For every year covered from 2006 – 2015, rates for older people were the highest among all age groups. Some hospitals are taking steps to provide better services and care for older patients.

The American college of Emergency Physicians (ACEP) provides hospitals with three levels of Geriatric Emergency Department Accreditation. ACEP, along with the American Geriatric Society, Emergency Nurses Association, and the Society for Academic Emergency Medicine developed and approved the guidelines for accreditation in 2013 and reaffirmed in January 2019. Currently, 99 hospitals in the US have received Geriatric Hospital Accreditation, 11 of which are in California.

DISCUSSION

1.   What are your thoughts about geriatric hospital ED care?

ACTION REQUESTED

➢   Information and feedback requested

Attachments: ACEP Policy Statement, Geriatric Emergency Department Guidelines, Reaffirmed 2019
                ACEP Geriatric Emergency Department Accreditation Criteria, levels 1, 2 & 3
                What is a Geriatric Emergency Department? US News & World Report, 9/28/2018

BJB:br

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American College of Emergency Physicians®

ADVANCING EMERGENCY CARE

POLICY STATEMENT

Approved January 2019

Geriatric Emergency Department Guidelines

Reaffirmed January 2019

Approved by The American Geriatrics Society October 2013; by the Emergency Nurses Association January 2014; and by the Society for Academic Emergency Medicine October 2013

Originally approved October 2013

A joint policy statement of the American College of Emergency Physicians, American Geriatric Society, Emergency Nurses Association, and Society for Academic Emergency Medicine

Table of Contents

This document is the product of two years of consensus-based work that included representatives from the American College of Emergency Physicians, The American Geriatrics Society, Emergency Nurses Association, and the Society for Academic Emergency Medicine.

INTRODUCTION

According to the 2010 Census, more than 40 million Americans were over the age of 65, which was "more people than in any previous census." In addition, "between 2000 and 2010, the population 65 years and over increased at a faster rate than the total U.S. population." The census data also demonstrated that the population 85 and older is growing at a rate almost three times the general population. The subsequent increased need for health care for this burgeoning geriatric population represents an unprecedented and overwhelming challenge to the American health care system as a whole and to emergency departments (EDs) specifically.[1-4] Geriatric EDs began appearing in the United States in 2008 and have become increasingly common.[5]

The ED is uniquely positioned to play a role in improving care to the geriatric population.[6] As an ever-increasing access point for medical care, the ED sits at a crossroads between inpatient and outpatient care (Figure 1).[7,8] Specifically, the ED represents 57% of hospital admissions in the United States, of which almost 70% receive a non-surgical diagnosis.[9] The expertise which an ED staff can bring to an encounter with a geriatric patient can meaningfully impact not only a patient's condition, but can also impact the decision to utilize relatively expensive inpatient modalities, or less expensive outpatient treatments.[10, 11] Emergency medicine experts recognize similar challenges around the world.[12] Geriatric ED core principles have been described in the United Kingdom.[13]
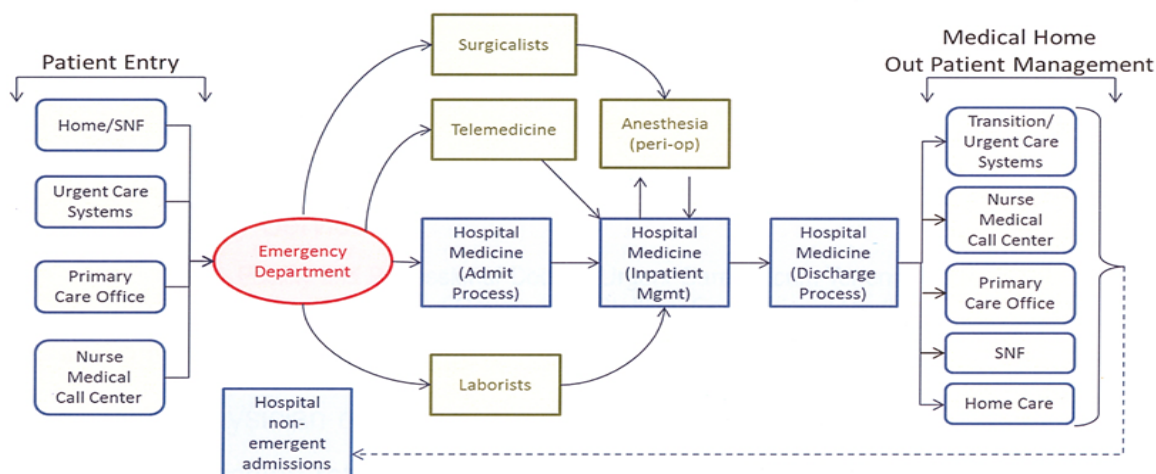
Figure 1. The central role of the ED in geriatric health care in contemporary medicine (reproduced with permission from TeamHealth's Patient Care Continuum Model.)

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Furthermore, as the initial site of care for both inpatient and outpatient events, the care provided in the ED has the opportunity to "set the stage" for subsequent care provided. More accurate diagnoses and improved therapeutic measures can not only expedite and improve inpatient care and outcomes, but can effectively guide the allocation of resources towards a patient population that, in general, utilizes significantly more resources per event than younger populations.[9,14] Geriatric ED patients represent 43% of admissions, including 48% admitted to the intensive care unit (ICU).[15, 16] On average, the geriatric patient has an ED length of stay that is 20% longer and they use 50% more lab/imaging services than younger populations.[17, 18] In addition, Geriatric ED patients are 400% more likely to require social services. Despite the focus on geriatric acute care in the ED manifest by disproportionate use of resources, these patients frequently leave the ED dissatisfied and optimal outcomes are not consistently attained.[19-21]

Despite the fact that the geriatric patient population accounts for a large, and ever increasing, proportion of ED visits, the contemporary emergency medicine management model may not be adequate for geriatric adults.[7,8] A number of challenges face emergency medicine to effectively and reliably improve post-ED geriatric adult outcomes.[22] Multiple studies demonstrate ED physicians' perceptions about inadequate geriatric emergency care model training.[14, 23] Many common geriatric ED problems remain under-researched leaving uncertainty in optimal management strategies.[24-26] In addition, quality indicators for minimal standard geriatric ED care continue to evolve.[27] Older adults with multiple medical co-morbidities, often multiple medications, and complex physiologic changes present even greater challenges.[28,29] Programs specifically designed to address these concerns are a realistic opportunity to improve care.[7,8]

Similar programs designed for other age groups (pediatrics) or directed towards specific diseases (STEMI, stroke, and trauma) have improved care both in individual EDs and system-wide, resulting in better, more cost effective care and ultimately better patient outcomes.[30-32]

GERIATRIC ED - PURPOSE

Purpose

The purpose of these Geriatric Emergency Department Guidelines is to provide a standardized set of guidelines that can effectively improve the care of the geriatric population and which is feasible to implement in the ED. These guidelines create a template for staffing, equipment, education, policies and procedures, follow-up care, and performance improvement measures. When implemented collectively, a geriatric ED can expect to see improvements in patient care, customer service, and staff satisfaction.[7, 11] Improved attention to the needs of this challenging population has the opportunity to more effectively allocate health care resources, optimize admission and readmission rates, while simultaneously decreasing iatrogenic complications and the resultant increased length-of-stay and decreased reimbursement.

A goal of the geriatric ED is to recognize those patients who will benefit from inpatient care, and to effectively implement outpatient care to those who do not require inpatient resources. To implement most effectively, the geriatric ED will utilize the resources of the hospital, ED and inpatient, as well as outpatient resources. Making effective and expedient outpatient arrangements available to the geriatric population is of critical importance to the care of this population, recognizing that acute inpatient events are often accompanied by functional decline, increased dependency and increased morbidity.[33, 34] By using providers, including nurse practitioners, nurses, social workers, physician assistants, and physicians to coordinate care in the ED, the inpatient units, and during the immediate post-ED discharge period, the geriatric ED creates the opportunity to care for geriatric patients in the environment most conducive to a positive outcome.

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The benefits of the Geriatric ED to the geriatric patient population are multiple and clear. By focusing attention and resources on the most common needs of the geriatric ED patient, care can be optimized. The benefit of a Geriatric ED to a hosting hospital can be multiple as well. These improved patient care standards can become a significant marketing tool for hospitals looking to reach out to the Medicare population and partner with extended care facilities. A Geriatric ED can market the ED to attract a patient population that may also utilize higher reimbursing hospital-based programs, including cardiac, orthopedic, and neurologic care. Further, with Medicare reimbursements decreasing and payment for iatrogenic complications such as wounds, catheter associated infections, etc. impacting hospital reimbursement; the need for special attention to geriatric needs has become even more pressing.

The term "geriatric" has had different definitions over the past decades. In 1985, the term "oldest old" was coined to identify those 85 years of age and older. Later Fries, et al defined three groups by dividing the older adult population into the young old (often 65-74), the middle old (75-85) and the oldest old (>85).[35, 36] The World Health Organization defined the older population starting at age 60.[37] Our guidelines used the construct that age 65 and older would be the geriatric population served by the Geriatric ED. Many hospitals may find that using the age 65 and older does not match the needs of their population and available resources. It may be most appropriate that each hospital identify the age for patients to be seen in their Geriatric ED. Through the continuum of physiologic aging complexity of health care issues increase and as such, the benefits of a Geriatric ED increase concurrently. The age range to be a patient in the Geriatric ED can be based on the literature, meaning age 60 or 65, or can be defined by the specific hospital community. One hospital uses age 55 based on when resources are available; another uses 65 years of age and another uses 75 years of age as the beginning age range for their Geriatric ED.

The recommendations found in this packet represent research and consensus-based best practices from the perspectives of the American College of Emergency Physicians, Society for Academic Emergency Medicine, American Geriatrics Society, and Emergency Nurses Association. With implementation of the following recommendations, hospitals, regardless of size, will positively impact the care of the geriatric emergency patients.

STAFFING/ADMINISTRATION

The Geriatric ED staff and administration provides a multi-disciplinary team of care providers focused on the varying needs of the geriatric population. By providing trained staff in the ED, as well as readily available staff for inpatient care and outpatient follow up, the Geriatric ED can optimize ED visits, effectively deliver and/or coordinate care in a less costly and more comfortable outpatient setting when appropriate and coordinate inpatient resources for high-risk patients. An effective program will involve hospital site-specific staff as well as overall local coordination resources.

Background:
Although published studies have not been clear on outcomes resulting from staffing modifications for the care of geriatric patients, they have demonstrated high levels of endorsement for ED staffing enhancements in general (94%), for the availability of specialized nurses (85%), pharmacists (74%), social workers (88%), geriatric consults (79%) and a designated professional to coordinate geriatric services (91%). There were moderate levels of endorsement for the availability of physical therapy (59%) and occupational therapy (53%).[38]

One common approach to enhanced older adult ED staffing in the literature is the use of geriatric consultation services in the ED.[39-42] Yuen, et al. found that over 26 months, there were 2202 geriatric

consultations (85 per month), with admission avoided in 85% (47% discharged home, 38% admitted to a "convalescent hospital").[42] Foo and colleagues evaluated geriatric assessment and intervention prior to discharge of geriatric patients from an ED observation unit. In the intervention group, 72% of patients had unrecognized needs requiring intervention. This group had fewer ED revisits (IRR 0.59) and hospital admissions (IRR 0.64) at 12 months.[41] However, results are not consistent across studies. Sinoff et al also evaluated an ED geriatric consult service and found a significantly higher admission rate (64%), with a 2-year mortality of 34% and institutionalization rate of 52%.[40] Social workers and case managers are essential to efficient geriatric ED management. Effective geriatric case management strategies continue to evolve.[43] Innovative models using volunteers to assess geriatric ED patients have also been evaluated and are acceptable to ED nurses and physicians.[29]

Recommendations:

- The Geriatric ED will have staffing protocols in place to provide for geriatric-trained providers, including physician and nurse leadership and ancillary services. These protocols should include plans for times when such services may not be available.
- Staff members of the Geriatric ED will participate in educational/training to ensure high-quality geriatric care.
- Although departments may differ in the availability of staffing resources, departments should have available the following positions either as part of a hospital-based Acute Care of Elders (ACE) team or specific for the ED:

Geriatric Emergency Department Medical Director
- Qualifications:
  - Best practiced by a board-certified emergency physician with training in geriatrics
  - Completion of eight hours of geriatric appropriate CME every two years
- Responsibilities:
  - Member of hospital ED *and* Medicine committee
  - Oversight of geriatric performance improvement program
  - Liaison with Medical Staff for geriatric care concerns
  - Liaison with outpatient care partners including Skilled Nursing Facilities (SNFs), Board and Care facilities, home health providers, etc.
  - Identify needs for staff education and implement educational programs when appropriate.
  - Review, approve, and assist in the development of all hospital geriatric policies and procedures

Geriatric Emergency Department Nurse Manager
- Qualifications:
  - At least two years of experience in geriatrics (or in an ED that sees geriatric patients) within the previous five years
  - Experience with QI programs is recommended
  - Completion of eight hours of Board of Registered Nursing (BRN) approved continuing education units (CEU) in geriatric topics every two years.
- Responsibilities:
  - Participate in the development and maintenance of a geriatric performance improvement program
  - Liaison with outpatient care partners including, but not limited to SNFs, Board and Care facilities, home health providers, etc.
  - Member of selected hospital-based ED and/or medicine committees
  - Identify needs for staff education and implement educational programs when appropriate.

Staff Physicians
- Provide twenty-four-hour ED coverage or directly supervised by physicians functioning as emergency physicians. This includes senior residents practicing at their respective hospitals only.
- Staff physicians are encouraged to participate in geriatric specific education with a goal of 4 hours of CME annually specifically focused on the care of geriatric patients.

Staff Nurses
- Nursing staff is encouraged to participate in geriatric specific education.

Medical Staff Specialists
- Specialists will be available for consultation either by established medical staff policies or by pre-arranged transfer arrangements. Although each hospital's medical staff will support different specialist services, it is recommended that the Geriatric ED have access to:
  o Geriatrics
  o Cardiology
  o General Surgery
  o GI
  o Neurology
  o Orthopedists
  o Psychiatry, preferably with a geriatric specialty
  o Radiology

Ancillary Services
- Case management and social services
- Mid-level provider/physician extenders (optional, but recommended)
- Occupational/Physical therapists
- Pharmacists

FOLLOW UP AND TRANSITION OF CARE

Acute hospitalization is associated with increased rates of acute delirium, nosocomial infections, iatrogenic complications, and functional declines in the geriatric adult.[44] Thus, one of the main goals of the Geriatric ED is to decrease hospital admissions. Making effective and expedient outpatient arrangements available to the geriatric population is of critical importance to the care of this population. However, discharge from the ED to the community presents significant challenges to the geriatric population.

Background:
Published studies on ED-based interventions with improved access to community resources have had mixed results. Most demonstrate little effect of these interventions on either ED utilization or prevention of complications.[45-48] However, effective transition of care is clearly required to facilitate outpatient care after an ED evaluation. This transition process presents many challenges. In an era of daily ED crowding, effective, reliable discharge instructions are a challenge to all populations, particularly for the geriatric population.[49] Older ED patients identify misinformation as a primary course of dissatisfaction with their emergency care, a problem confounded and magnified by ongoing under-recognition of cognitive dysfunction, lower health literacy, and financial impediments for prescriptions and recommended outpatient follow-up.[50-52]

Recommendations:

- The Geriatric ED will have discharge protocols in place that facilitate the communication of clinically relevant information to the patient/family and outpatient care providers, including nursing homes. Essential information to optimize continuity of care at the time of discharge should include the following data elements:

  o Presenting complaints
  o Test results and interpretation
  o ED therapy and clinical response
  o Consultation Notes (in person or via telephone) in ED
  o Working discharge diagnosis
  o ED physician note, or copy of dictation
  o New prescriptions and alterations with long-term medications
  o Follow-up plan

Clinical information will be presented in a format in a way best suited for elder adults:
- Large font discharge instructions
- Health Insurance Portability and Accountability Act (HIPAA) compliant copied discharge instructions should be provided to family and care providers.

The Geriatric ED will have a process in place that effectively provides appropriate outpatient follow up either via provider-to-patient communication or the provision of direct follow up clinical evaluation.
- Although telephone follow up is the most commonly used, the use of newer technology, including telemedicine alternatives is recommended.

The Geriatric ED will maintain relationships and resources in the community that can be used by patients on discharge to facilitate care.
- Medical follow up
- Primary MD or "medical home"
- Case Manager to assist with compliance with follow up
- Safety Assessments
- Mobility
- Access to care and medical transportation resources
- Medical equipment
- Prescription assistance and education
- Home health, including outpatient nursing resources
- ADL resources including meal programs, etc.

Although a goal of the Geriatric ED should be to maintain older adults in their own homes whenever possible, some patients will require either short term or long-term placement into facilities when care cannot be provided appropriately at home. Thus, the Geriatric ED should have available community resources for the placement of patients to the appropriate level of care, including nursing homes, rehab facilities, board and cares, etc.

EDUCATION

The success of the Geriatric ED program rests largely on the education of a multi-disciplinary staff directed toward the needs of the geriatric population. Residency and continuing medical education must take into account the unique physiology, atypical disease presentations, and psychosocial needs of older

persons.[14,23,53] Education and training evaluation of emergency personnel should be competency-based. The curriculum should contain interdisciplinary content, and learners should be assessed for interdisciplinary core competencies. Effective instructional methods include a mix of didactic lectures, case conferences, case simulations, clinical audits, journal clubs, web-based materials, and supervised patient care. Hands-on training is strongly preferred by many learners. Education may be effectively organized around the assessment of common and important geriatric chief complaints.

A Geriatric ED educational program is expected to include an initial initiative directed towards program implementation, increasing staff awareness of the geriatric population's needs, and specific policy and procedure initiatives.[54] Educational programs can be created and implemented internally (specific for each hospital), as part of a larger CME program, or through participation in externally created programs.

An educational program should include:
- Initial "go-live" implementation sessions
  o Involvement of multi-disciplinary teams including hospital-based leadership and outpatient resources
  o Geriatric emergency medicine didactic sessions for physician, nursing, and multi-disciplinary staff focused on geriatric care issues to be assessed and managed in the Geriatric ED
  o In-service education on geriatric-specific equipment
  o Program introduction for community-based organizations caring for geriatric patients with opportunity for input.
- Community awareness, involvement, and outreach
  o Emergency Medical Services (EMS) personnel perceive a deficit in their training as it relates to care of older patients, particularly in the areas of education and psychosocial issues.[55] The Geriatric ED should provide training for EMS personnel who rescue and transport older persons to their facilities.[56,57]
  o The Geriatric ED should also provide educational self-management materials for older adults and their families.
- Regular educational assessment and implementation of site-specific educational needs
  o QI data review with process improvement implementation
  o Periodic education/re-education of disease specific presentations with updates on policy/procedure changes, community care programs, etc.
  o An important educational goal is to provide familiarity with use of quick, bedside assessment tools.

Educational needs will be assessed on an ongoing basis by the Geriatric Medical Director and Geriatric Liaison nurse and implemented as needed based on staff needs. As the program grows and the competency of staff changes over time, it is expected that educational needs will change. It is highly recommended that education be coordinated with peer review cases, based on cases experienced in the local ED.

Although educational content should be tailored to individual department needs, recommended content includes the following:
- Atypical presentations of disease[23, 58-62]
- Trauma, including falls and hip fracture[23, 58, 62-66]
- Cognitive and behavioral disorders[23, 58-60, 62, 66-72]
- Modifications for older patients of emergent interventions[23]
- Medication management[23, 58-62, 66-69, 71]
- Transitions of care and referrals to services[23, 60, 61, 67-69, 71, 73]

- Pain management and palliative care[23, 66, 74]
- Effect of comorbid conditions[23, 58]
- Functional impairments and disorders[58-61, 71]
- Management of the group of diseases peculiar to the geriatric adult, including conditions causing abdominal pain[58-60, 62, 66-68, 75]
- Weakness and dizziness[58, 60, 63, 76]
- Iatrogenic injuries[67, 68, 77]
- Cross-cultural issues involving older patients in the emergency setting [63]
- Elder abuse and neglect[58, 61, 66, 71]
- Ethical issues, including advance directives[58, 61, 62, 69, 78]

QUALITY IMPROVEMENT

Implement an effective Quality Improvement (QI) program with the goal to collect and monitor data (Figure 2) in a manner conducive to staff education and program success.

Geriatric Program Quality Improvement Plan
- A geriatric program shall be developed and monitored by the Geriatric Medical Director and Geriatric Nurse Manager.
- A geriatric report shall be generated and delivered to the ED committee no less than quarterly by the Geriatric Medical Director.
- The program shall include an interface with pre-hospital care, ED, trauma, critical care, alternative level care facilities and hospital wide QI activities.
- A mechanism shall be established to easily identify geriatric patient (65 years & older) visits to the ED.
- The geriatric QI program will include identification of the indicators, methods to collect data, results and conclusions, recognition of improvement, action(s) taken, and assessment of effectiveness of actions and communication process for participants.
- A mechanism to document and monitor the geriatric education of the Geriatric ED staff shall be established.
- The geriatric QI program shall include reviews of the following geriatric patients seen in the ED:
  o Geriatric volume
  o Admission rate
  o Readmission rate
  o Deaths
  o Suspected abuse or neglect
  o Transfers to another facility for higher level of care
  o Admissions requiring upgrading of level of care to ICU within 24 hours of admission
  o Return visits to the ED within 72 hours
  o Completion of at-risk screening tool[79]
  o Completion of follow up reevaluation for discharged patients

- In addition to the above, individual disease specific entities that facilities may also monitor include:
  o Falls in the geriatric adult
    ▪ Prevalence
    ▪ Prevalence of traumatic injuries associated with falls
      o Hip fractures
      o Traumatic intracranial hemorrhage

- o Blunt abdominal injuries
- o Death
  - ▪ Poly-pharmacy screening in patients with falls
  - ▪ Screening of those at-risk of falls
    - o Physical therapy evaluation completed on at-risk patients.
  - ▪ Referral patterns after fall (visual screening, gait rehab, etc.)
- o Catheter use and catheter associated UTIs (CAUTIs)
  - ▪ Foley insertion and indication checklist usage data
  - ▪ Days of catheter use in hospital
  - ▪ Automatic discontinuation orders utilized
  - ▪ Total catheter days
  - ▪ ED CAUTI prevalence
- o Medication reconciliation/pharmacy oversight
  - ▪ Documentation of high-risk medications
  - ▪ Usage of high-risk medication in ED (See addendum)
  - ▪ Percentage of revisits for medication adverse reaction or noncompliance
- o Restraint
  - ▪ Indication documented
  - ▪ Chemical restraint attempted and with which medication

Figure 2. Sample Geriatric ED Quality Assessment Instrument (Dashboard)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
GLOBAL MEASURES												
Patient volume >65												
% of total admissions												
Readmissions												
72 hour ED revisits												
24 hour admission upgrades												
Geriatric abuse												
Deaths												
DISEASE SPECIFIC												
FALLS												
Hip Fractures												
Traumatic ICH												
Blunt Abdominal Injury												
Death												
Fall-Risk Assessment												
Physical Therapy Eval												
URINARY CATHETERS												
Check List Used												
Catheter Days												
Automatic Discontinue												
CAUTI Stay Length												
MEDICINE MANAGEMENT												
High Risk Meds Noted												
ED High Risk Meds												
Adverse Reaction Revisit												
Non-compliance Revisit												
DELIRIUM												
Screen Documented												
Restraint Indications												
Chemical Restraint Attempt												
Behavior Physical Restraint Used												

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EQUIPMENT AND SUPPLIES

Geriatric patient care requires equipment designed for a patient population with specific needs. Challenges involving mobility, incontinence, behavioral needs, etc. are best met with equipment designed for the effective and comfortable evaluation and treatment of geriatric patients, while minimizing iatrogenic complications. The physical plant of a Geriatric ED should focus on structural modifications that promote improvements in safety, comfort, mobility, memory cues, and sensorial perception both with vision and hearing for elders in the ED. Common key features are those that enhance lighting, colors, enhanced signage – all of these are better, not only for older adults, but for everyone. Although a separate space within an ED, or a separate ED entirely, devoted to geriatrics may be beneficial, most hospitals will be more capable of effectively implementing a program in which any ED bed can be made "geriatric friendly" with the presence of the equipment and supplies listed.

The list below is a suggested starting point for the design and equipping of a Geriatric ED.[7,11,80]

- Furniture improvements:
  - Exam chairs/reclining chairs – may be more comfortable for some geriatric patients and facilitate transfer processes.[81]
  - Furniture should be selected with sturdy armrests and ED beds at levels that allow patients to rise more easily for safe transferring. Furniture should be selected using the Evidence-Based Design Checklist. Some studies show that patients often fall when trying to get out of bed unsupervised or unassisted. They also show that bedrails do not reduce the amount of falls and may increase the severity of the fall.
  - Extra thick/soft gurney mattress – decreases possible development of skin break down and decubitus ulcer formation.[82]
  - Choice of upholstery should be soft and moisture proof to protect the fragile skin of older patients. Should also be selected to reduce surface contamination linked to health care associated infections. "Surfaces are easily cleaned, with no surface joints or seams," "materials for upholstery are impervious," "surfaces are nonporous and smooth." This should hold true especially in the ED where there is a high turnover with a large variety of diseases potentially present.
  - Economic evidence supports early prevention of pressure ulcers in ED patients by the use of pressure-redistributing foam mattresses.[83] Another alternative that has been shown to reduce pain and improve patient satisfaction is the use of reclining chairs in the ED instead of ED gurney beds.[81]
- Special equipment
  - Body warming devices/warm blankets
  - Fluid warmer
  - Non-slip fall mats[84]
  - Bedside commodes – where necessary to minimize fall risk
  - Walking aids/devices[85]
  - Hearing aids[86]
  - Monitoring equipment
  - Respiratory equipment to include a fiberoptic intubation device
  - Restraint devices
  - Urinary catheters to include condom catheters – minimize risk of CAUTI
- Visual Orientation improvements:
  - Lighting – soft light is recommended, but exposure to natural light is also shown to be beneficial for recovery times and decreasing delirium

- Light colored walls with a matte sheen and light flooring with a low-glare finish should be used to optimize lighting and reduce glare. While older adults require three to four times as much light as young adults for visual clarity, light scatter also increases with aging eyes. Simply increasing the level of lighting can improve acuity, and it is recommended that lighting consist of a combination of ambient and spot lighting. In contrast, glare and shine along with difficulty seeing the edges of pale colored objects have been shown to be impediments for older adults in their ability to function and confusing for those with cognitive impairments. Thus, improvements that increase lighting while reducing glare can include shielding of illuminating fixtures above the upper visual field. Fixtures that bounce light off the ceiling or of walls increase overall room lighting while glare can be reduced with the use of matte surfaces. Uniform indirect light.

    - Patients should have control of the lighting in their space if they wish to sleep at a time when the other lights are on, allowing for fewer sleep disturbances.

  o Patterns

    - Contrast sensitivity in aging vision can be both confusing and hinder movement in geriatric patients, especially with reduced depth perception. Patterns that have dominant contrasts may create a sense of vertigo or even seem to vibrate for older adults. Others may misperceive patterns as obstacles or objects (eg, leaf patterns on flooring may be seen as real live leaves to avoid when walking).

  o Colors

    - Secondary to vision and perception changes, color choice for facilities and structure should be considered. Color can be used to enhance visual function and depth perception. Avoid monochromatic color schemes and allow for colors to contrast between horizontal and vertical surfaces. Similar colors look the same for those with poor vision. Older adults experience a decrease in the ability to differentiate cool colors (greens, blues) as opposed to warm colors (yellows, oranges). In poorly lit areas, yellow is the most visible. Orange and reds are attention grabbing. Blues appear hazy and indistinct and may appear gray due to yellowing of the lens.

- Acoustic Orientation Improvements – private rooms or acoustically enhanced drapes, if necessary, for better communication and decrease levels of anxiety and delirium

  o An enhanced acoustical environment may facilitate communication between patients and staff and between staff. While older adults may have decreased ability to hear certain words secondary to a loss of hearing in high-frequency ranges, they also have increased sensitivity to loud sounds. The use of sound-absorbing materials (eg, carpet, curtains, ceiling tiles) may reduce background noise and can also increase patient privacy. The use of portable hearing assist devices for patients may also enhance communication. Loud noise sources in the hospital should be reduced (eg, overhead paging, machines). There is an increase in the amount of studies showing how music can decrease anxiety, heart rate and blood pressure.[87, 88] Patients could be provided with a way to listen to music and choose their programming without disturbing others.

  o An enhanced acoustical environment can also increase patient privacy and safety. One study performed in an ED found that "percent of the patients in curtained spaces reported they withheld portions of their medical history and refused parts of their physical examination because of lack of privacy. None of the patients in rooms with walls reported withholding information."

- Enhanced signage – enhance communication
- Miscellaneous safety enhancements
  o Doors should be fitted with handles (not round knobs) for ease of use

Hospitals are expected to utilize their existing resources to meet the needs of this population. With minimal additional expense for equipment suggested above, geriatric care can be optimized.

POLICIES, PROCEDURES AND PROTOCOLS

The policies, procedures, and protocols listed are recommended as a comprehensive, directed, although not exhaustive, approach to many of the challenges involved in the care of geriatric patients in the ED. Emergency departments are encouraged to use, change, or integrate their local policies, procedures, and protocols whenever possible. These policies should be available to be referenced by staff and should be followed as part of the routine care of patients.

- Triage and initial evaluation
  - Family/care provider presence/participation in the triage process is highly encouraged
- Initial screening tool to recognize and evaluate at-risk seniors *
- Patient safety
- Suspected elder/dependent adult abuse and neglect
- Sedation/analgesia in the geriatric patient
- Assessment and evaluation of delirium/agitation *
  - Restraint policies
- DNR/POLST/palliative care
- Patient Death
  - Inclusion of the grieving family in the "code" situation is encouraged
- Urinary catheter placement guidelines *
- Fall risk assessment and clinical guideline for the evaluation of the "geriatric adult fall" *
- Wound assessment and care
- Transition of Care and Follow-up
- Medication reconciliation and pharmacy review *

  *Denotes sample policies and procedures included in the next section

Sample Policy and Procedures

The Screening of Geriatric Patients for Risk of Added Needs Assessment, Consultation and Intervention

Background: The geriatric population presenting to the ED is a heterogeneous patient population. Although many patients in this population are functional, independent, and generally in good health, it has been shown that a visit to the ED, even for a relatively minor issue, may be a "red flag" event heralding functional decline and the potential need for added health resources. Other patients in this population are frailer. In general, these patients will require longer ED and hospital lengths-of-stay and consume more health care resources than their younger cohorts. Screening of this population in the ED may allow an opportunity to intervene in those patients who require added resources to help improve outcomes.

Previously published studies on the use of prognostic screening tools in this patient population have mixed results.[89-93] What seems to be clear though is that a team driven, simple to use screening tool can be powerful in helping act to prevent poor outcomes and improve the ED and hospital experience for the geriatric patient.[94-96]

Goals of an effective screening program include the prevention or limitation of delirium, prevention of functional decline, prevention of iatrogenic injury including adverse drug events and falls, as well as a

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more effective transition of care through the care cycle from outpatient to ED to inpatient and back again to outpatient.

Policy: It is the policy of the Geriatric ED to screen all geriatric patients for high-risk features. Those patients screened to be at risk will be referred to health care resources, both inpatient and outpatient, to help improve overall health and functional outcomes.

Recommended Resources:
- Nurse screening tool
- Resource list including, but not limited to:
  - Physical therapy
  - Occupational therapy
  - Home health providers
  - Case managers
- Outpatient follow up resources

Procedure:
- All geriatric patients, regardless of the presenting complaint shall be screened (on the initial index visit, not follow up visits) using the "Identification of Seniors at Risk Tool"[89] or a similar risk screening tool.[97, 98] This is a simple, quick screening tool that should be completed by the treating nurse as part of the initial evaluation. Answers to the screening questions can be provided by the patient, family, care providers, or others involved in the patient's assessment and care.

  Identification of Seniors At-Risk Tool
  - Before the injury or illness, did you need someone to help you on a regular basis?
  - Since the injury or illness, have you needed more help than usual?
  - Have you been hospitalized for one or more nights in the past six months?
  - In general, do you see well?
  - In general, do you have serious problems with your memory?
  - Do you take more than 3 medications daily?

    >1 positive response is considered high-risk

- The treating physician will review the results of the initial screening during the index visit.
- Any patient noted to be at-risk (on the ISAR that means one or more positive responses on the initial screening tool) will be provided with appropriate resources focused to the individual needs.
- All patients noted to be at-risk requiring admission to the hospital will be referred to case management upon admission with the risk assessment results communicated.
- All patients noted to be at-risk that are to be treated as an outpatient will be followed up the following day. Although phone consultation may be adequate, in-person evaluations either in the ED, by the primary physician, or by an RN or mid-level provider is preferable.
- Specific at-risk features will be addressed during the index visit in the ED. Recommendations and referrals will be documented as part of the "Medical Decision Making" and will be addressed along with the case-specific discharge instructions.

Performance Improvement: The screening of geriatric patients for general at-risk features will require ongoing education and reinforcement for physician, mid-level, and nursing providers. It is recommended that compliance of the completion of the initial assessment be assessed on a regular basis.

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Guidelines for the Use of Urinary Catheters in the Geriatric Population

Background: Health care-associated and hospital acquired infections are increasing occurrences and pose a significant risk of morbidity and mortality to affected patients. Between 1990 and 2002 hospital admissions for urinary tract infections soared to 16% of all hospital admissions. Urinary tract infections associated with urinary tract catheter insertion account for the highest percentage (80%) of hospital and health care associated infections and approximately 1 in 5 patients being admitted to the hospital receive an indwelling catheter at some point.[99-104] The risk of urinary tract infection from an indwelling catheter increase about 5% per day and a small portion of these patients develop bacteremia and sepsis as a result of indwelling urinary tract catheters with a significant increase in health expenditures and length of stay.[100, 103, 104] Several studies suggest that many of these urinary tract catheters are inappropriately placed and needlessly expose patients to the inherent risk of catheter placement without benefit.[105-107] The Centers for Medicare and Medicaid Services (CMS) has identified these health care-associated infections as preventable and have recommended that hospitals take measures to minimize the catheter related infections.[103] Several groups have identified specific measures aimed at decreasing the incidence of CAUTIs.[101, 102, 104] Yet, despite these proven efforts, national hospital compliance with preventative measures is lacking and lacks uniformity.[108, 109] Of primary importance is the screening and appropriate identification of patients for indwelling catheter placement, proper technique, educating staff and process improvement measures such as infection rate auditing and limited duration of use (references). As an integral part of the health care system the ED recognizes the importance of selecting appropriate patients for catheter insertion.

Purpose: The purpose of this policy and procedure is meant to provide a guideline on indications for the appropriate use of indwelling catheter and does not replace the clinical judgment of the physician.

Procedure: Insertion of urinary catheters (See Figure 3):
- The patient must have an indication for use of an indwelling catheter and a physician order in the chart. According to the Infectious Disease Society of America and other expert opinion, these indications are as follows:[102, 104, 110, 111]
  o Urinary retention/obstruction
  o Very close monitoring of urine output and patient unable to use urinal or bedpan
  o Open wound in sacral or perineal area with urinary incontinence
  o Patient too ill, fatigued or incapacitated to use alternative urine collection method
  o Patient s/p recent surgery
  o Management of urinary incontinence on patient's request
  o Other – needs specification and clarification documented

Other acceptable indications also include
- Neurogenic bladder
- Emergent pelvic ultrasound
- Emergent surgery
- Altered mental status or unresponsive
- Urologic procedures
- Hip fracture
- Hospice or palliative care

After receiving a physician order with the appropriate indications documented, nursing will insert the indwelling catheter as per protocol, using sterile technique.

Discontinuation of urinary catheters:

- Indwelling catheters will be removed as soon as feasibly possible. Evidence shows that catheter associated bacteriuria increases and is directly associated with catheter days. Accordingly, daily catheter rounds should prompt for continued use or removal of indwelling catheters .[104, 109]

Process improvement:
As part of ongoing efforts to improve use of indwelling catheters in appropriate patients, periodic audits will be performed to check for the following:

- Is a physician order for an indwelling urinary catheter present?
- Was the procedure documented including time and date?
- Was sterile technique used?
- What is the rate of CAUTI?

Figure 3. Foley Catheter Insertion Algorithm
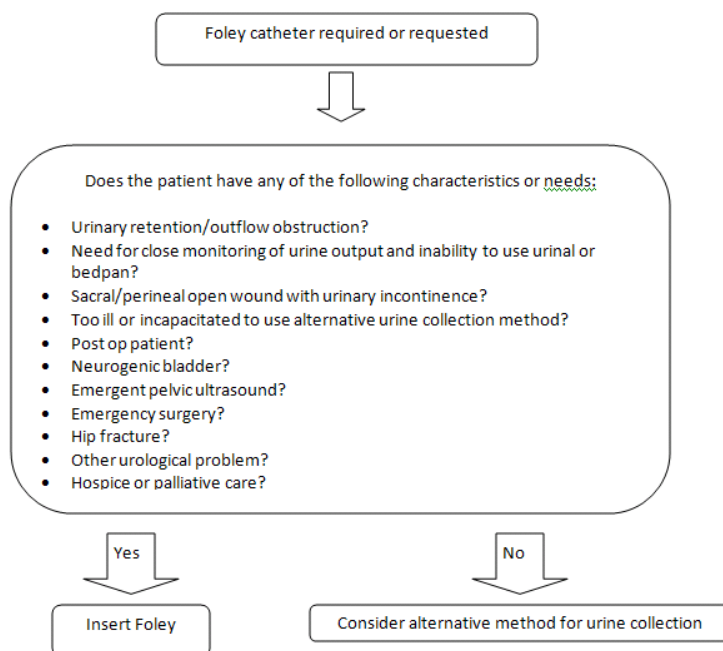
Geriatric Medication Management

Background: Geriatric patients are at high-risk for adverse events related to medication.[4, 26, 112, 113] The aging population tends to take more medications, have more co-morbidities, and have differing responses to medications when compared to their younger cohorts.[114] Furthermore, the "normal" aging physiology often leads to changes in metabolism with medications as well as problematic responses to "normal" medication dosing.

Polypharmacy in this population is especially problematic.[113, 115] Population studies have indicated that 40% of patients greater than 65 years of age take 5-9 medications daily, and 18% take more than 10. If you consider there is a 50-60% chance of a drug-drug interaction when taking 5 medications and a 90% chance of a drug-drug interaction when taking 10 or more medications, the burden of medications on the evaluation and care of the geriatric population seems clear.

Overall, adverse medication events not only represent a major cause of ED visits and hospital admissions, they can also lead to increased patient morbidity and mortality, increased resource utilization and increased overall ED and hospital length-of-stay.[115-118]

Current "medication reconciliation" procedures are a good start towards addressing this issue, but do not go far enough in the management of medications in the geriatric population. Implementation of a concise, goal-oriented, team approach to medication management beginning in the ED can potentially increase awareness of adverse drug events as presenting diagnoses, minimize the use of high-risk medications in the geriatric adult, minimize the use of medications with potential interactions, and positively influence the ED care, hospitalization, and subsequent outpatient care of these patients.

Policy: It is the policy of the Geriatric ED to address the use of medications in the geriatric population presenting to the ED. A medication list will be obtained and completed as accurately as possible, taking advantage of patients, caretakers, and medical record resources. Patients taking more than 5 medications, any high-risk medications, or presenting with signs or symptoms of adverse drug events will be managed with a multi-disciplinary approach focused on improving patient outcomes.

Required Resources:
- Established medication "reconciliation" tool
  - Computer-based resources can be effective for obtaining accurate medication lists when patients or care takers are not able to provide them.
- Pharmacy leadership/involvement
  - Maintenance of high-risk medication list
- A multi-disciplinary team, including geriatric specialists, pharmacists, etc. is recommended.

Procedure:
- All geriatric patients presenting to the ED, regardless of presenting complaint, will have a medication list completed.
  - Accuracy is often difficult in the ED scenario. Involving the patient, care providers, and family in this procedure is critical.
  - Computer resources should be developed and utilized whenever possible to maintain accurate medication lists for patients representing to the ED or hospital.
- The completed medication list will be made available to the attending ED physician and treating nurse as soon as possible.
- The medication list will be screened by both the nurse and attending physician for:
  - Polypharmacy >5 medications
  - Presence of any high-risk medications
    - Hospital pharmacies should develop and maintain a list of high-risk medications. Using "Beers criteria" or other established lists is recommended. Although these lists should be hospital specific, they should at least include:
      - Anti-coagulants and anti-platelet medications
      - Anti-hyperglycemics
      - Cardiac medications including digoxin, amiodarone, B-Blockers, Ca channel blockers
      - Diuretics
      - Narcotics
      - Anti-psychotics and other psychiatric medications
      - Immunosuppressant medications, including chemotherapy agents

- Patients requiring hospital admission that are noted to have either polypharmacy concerns or the presence of any high-risk medications will be referred to a multi-disciplinary team to include a pharmacist.
    - The multi-disciplinary team will interact with the attending physician with goals of minimizing drug-drug interactions, minimizing polypharmacy and high-risk medications during hospitalization and upon discharge.
- Patients discharged from the ED that are noted to have either polypharmacy concerns or the presence of any high-risk medications will be referred to their primary physician for review of their medications as appropriate for their clinical situation.

Performance Improvement:
- High-risk medication lists will be reviewed annually.
- Consider reviewing the use of a high-risk medication annually. For example, the use of diphenhydramine in the geriatric adult can be reviewed with a goal of limiting its use in the geriatric population.
- Tracking and trending of adverse drug response admissions
- Tracking and trending of pharmacist interventions for admitted patients noted with either polypharmacy or high-risk medications.

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American Geriatrics Society Beers Criteria 2012
Source: http://tinyurl.com/BeersMeds2012

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FOR POTENTIALLY INAPPROPRIATE MEDICATION USE IN OLDER ADULTS

FROM THE AMERICAN GERIATRICS SOCIETY

This clinical tool, based on The AGS 2012 Updated Beers Criteria for Potentially Inappropriate Medication Use in Older Adults (AGS 2012 Beers Criteria), has been developed to assist healthcare providers in improving medication safety in older adults. Our purpose is to inform clinical decision-making concerning the prescribing of medications for older adults in order to improve safety and quality of care.

Originally conceived of in 1991 by the late Mark Beers, MD, a geriatrician, the Beers Criteria catalogues medications that cause adverse drug events in older adults due to their pharmacologic properties and the physiologic changes of aging. In 2011, the AGS undertook an update of the criteria, assembling a team of experts and funding the development of the AGS 2012 Beers Criteria using an enhanced, evidence-based methodology. Each criterion is rated (quality of evidence and strength of evidence) using the American College of Physicians' Guideline Grading System, which is based on the GRADE scheme developed by Guyatt et al.

The full document together with accompanying resources can be viewed online at www.americangeriatrics.org.

INTENDED USE
The goal of this clinical tool is to improve care of older adults by reducing their exposure to Potentially Inappropriate Medications (PIMs).
- This should be viewed as a guide for identifying medications for which the risks of use in older adults outweigh the benefits.
- These criteria are not meant to be applied in a punitive manner.
- This list is not meant to supersede clinical judgment or an individual patient's values and needs. Prescribing and managing disease conditions should be individualized and involve shared decision-making.
- These criteria also underscore the importance of using a team approach to prescribing and the use of non-pharmacological approaches and of having economic and organizational incentives for this type of model.
- Implicit criteria such as the STOPP/START criteria and Medication Appropriateness Index should be used in a complementary manner with the 2012 AGS Beers Criteria to guide clinicians in making decisions about safe medication use in older adults.

The criteria are not applicable in all circumstances (eg, patient's receiving palliative and hospice care). If a clinician is not able to find an alternative and chooses to continue to use a drug on this list in an individual patient, designation of the medication as potentially inappropriate can serve as a reminder for close monitoring so that the potential for an adverse drug effect can be incorporated into the medical record and prevented or detected early.

TABLE 1: 2012 AGS Beers Criteria for Potentially Inappropriate Medication Use in Older Adults

Organ System/ Therapeutic Category/Drug(s)	Recommendation, Rationale, Quality of Evidence (QE) & Strength of Recommendation (SR)
Anticholinergics (excludes TCAs)	
First-generation antihistamines (as single agent or as part of combination products) ■ Brompheniramine ■ Carbinoxamine ■ Chlorpheniramine ■ Clemastine ■ Cyproheptadine ■ Dexbrompheniramine ■ Dexchlorpheniramine ■ Diphenhydramine (oral) ■ Doxylamine ■ Hydroxyzine ■ Promethazine ■ Triprolidine	**Avoid.** Highly anticholinergic; clearance reduced with advanced age, and tolerance develops when used as hypnotic; increased risk of confusion, dry mouth, constipation, and other anticholinergic effects/toxicity. Use of diphenhydramine in special situations such as acute treatment of severe allergic reaction may be appropriate. *QE = High (Hydroxyzine and Promethazine), Moderate (All others); SR = Strong*
Antiparkinson agents ■ Benztropine (oral) ■ Trihexyphenidyl	**Avoid.** Not recommended for prevention of extrapyramidal symptoms with antipsychotics; more effective agents available for treatment of Parkinson disease. *QE = Moderate; SR = Strong*

Table 1 (continued from page 1)

TABLE 1: 2012 AGS Beers Criteria for Potentially Inappropriate Medication Use in Older Adults

Organ System/ Therapeutic Category/Drug(s)	Recommendation, Rationale, Quality of Evidence (QE) & Strength of Recommendation (SR)
Antispasmodics ■ Belladonna alkaloids ■ Clidinium-chlordiazepoxide ■ Dicyclomine ■ Hyoscyamine ■ Propantheline ■ Scopolamine	**Avoid except in short-term palliative care to decrease oral secretions.** Highly anticholinergic, uncertain effectiveness. *QE = Moderate; SR = Strong*
Antithrombotics	
Dipyridamole, oral short-acting* (does not apply to the extended-release combination with aspirin)	**Avoid.** May cause orthostatic hypotension; more effective alternatives available; IV form acceptable for use in cardiac stress testing. *QE = Moderate; SR = Strong*
Ticlopidine*	**Avoid.** Safer, effective alternatives available. *QE = Moderate; SR = Strong*
Anti-infective	
Nitrofurantoin	**Avoid for long-term suppression; avoid in patients with CrCl <60 mL/min.** Potential for pulmonary toxicity; safer alternatives available; lack of efficacy in patients with CrCl <60 mL/min due to inadequate drug concentration in the urine. *QE = Moderate; SR = Strong*
Cardiovascular	
Alpha, blockers ■ Doxazosin ■ Prazosin ■ Terazosin	**Avoid use as an antihypertensive.** High risk of orthostatic hypotension; not recommended as routine treatment for hypertension; alternative agents have superior risk/benefit profile. *QE = Moderate; SR = Strong*
Alpha agonists ■ Clonidine ■ Guanabenz* ■ Guanfacine* ■ Methyldopa* ■ Reserpine (>0.1 mg/day)*	**Avoid clonidine as a first-line antihypertensive. Avoid others as listed.** High risk of adverse CNS effects; may cause bradycardia and orthostatic hypotension; not recommended as routine treatment for hypertension. *QE = Low; SR = Strong*
Antiarrhythmic drugs (Class Ia, Ic, III) ■ Amiodarone ■ Dofetilide ■ Dronedarone ■ Flecainide ■ Ibutilide ■ Procainamide ■ Propafenone ■ Quinidine ■ Sotalol	**Avoid antiarrhythmic drugs as first-line treatment of atrial fibrillation.** Data suggest that rate control yields better balance of benefits and harms than rhythm control for most older adults. Amiodarone is associated with multiple toxicities, including thyroid disease, pulmonary disorders, and QT interval prolongation. *QE = High; SR = Strong*
Disopyramide*	**Avoid.** Disopyramide is a potent negative inotrope and therefore may induce heart failure in older adults; strongly anticholinergic; other antiarrhythmic drugs preferred. *QE = Low; SR = Strong*
Dronedarone	**Avoid in patients with permanent atrial fibrillation or heart failure.** Worse outcomes have been reported in patients taking dronedarone who have permanent atrial fibrillation or heart failure. In general, rate control is preferred over rhythm control for atrial fibrillation. *QE = Moderate; SR = Strong*
Digoxin >0.125 mg/day	**Avoid.** In heart failure, higher dosages associated with no additional benefit and may increase risk of toxicity; decreased renal clearance may increase risk of toxicity. *QE = Moderate; SR = Strong*

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American Geriatrics Society Beers Criteria 2012 (continued)

Table 1 (continued from page 2)

TABLE 1: 2012 AGS Beers Criteria for Potentially Inappropriate Medication Use in Older Adults

Organ System/ Therapeutic Category/Drug(s)	Recommendation, Rationale, Quality of Evidence (QE) & Strength of Recommendation (SR)
Nifedipine, immediate release*	**Avoid.** Potential for hypotension; risk of precipitating myocardial ischemia. QE = High; SR = Strong
Spironolactone >25 mg/day	**Avoid in patients with heart failure or with a CrCl <30 mL/min.** In heart failure, the risk of hyperkalemia is higher in older adults if taking >25 mg/day. QE = Moderate; SR = Strong
Central Nervous System	
Tertiary TCAs, alone or in combination: ■ Amitriptyline ■ Chlordiazepoxide-amitriptyline ■ Clomipramine ■ Doxepin >6 mg/day ■ Imipramine ■ Perphenazine-amitriptyline ■ Trimipramine	**Avoid.** Highly anticholinergic, sedating, and cause orthostatic hypotension; the safety profile of low-dose doxepin (≤6 mg/day) is comparable to that of placebo. QE = High; SR = Strong
Antipsychotics, first- (conventional) and second- (atypical) generation (see online for full list)	**Avoid use for behavioral problems of dementia unless non-pharmacologic options have failed and patient is threat to self or others.** Increased risk of cerebrovascular accident (stroke) and mortality in persons with dementia. QE = Moderate; SR = Strong
Thioridazine Mesoridazine	**Avoid.** Highly anticholinergic and greater risk of QT-interval prolongation. QE = Moderate; SR = Strong
Barbiturates ■ Amobarbital* ■ Butabarbital* ■ Butalbital ■ Mephobarbital* ■ Pentobarbital* ■ Phenobarbital ■ Secobarbital*	**Avoid.** High rate of physical dependence; tolerance to sleep benefits; greater risk of overdose at low dosages. QE = High; SR = Strong
Benzodiazepines *Short- and intermediate-acting:* ■ Alprazolam ■ Estazolam ■ Lorazepam ■ Oxazepam ■ Temazepam ■ Triazolam *Long-acting:* ■ Chlorazepate ■ Chlordiazepoxide ■ Chlordiazepoxide-amitriptyline ■ Clidinium-chlordiazepoxide ■ Clonazepam ■ Diazepam ■ Flurazepam ■ Quazepam	**Avoid benzodiazepines (any type) for treatment of insomnia, agitation, or delirium.** Older adults have increased sensitivity to benzodiazepines and decreased metabolism of long-acting agents. In general, all benzodiazepines increase risk of cognitive impairment, delirium, falls, fractures, and motor vehicle accidents in older adults. May be appropriate for seizure disorders, rapid eye movement sleep disorders, benzodiazepine withdrawal, ethanol withdrawal, severe generalized anxiety disorder, periprocedural anesthesia, end-of-life care. QE = High; SR = Strong
Chloral hydrate*	**Avoid.** Tolerance occurs within 10 days and risk outweighs the benefits in light of overdose with doses only 3 times the recommended dose. QE = Low; SR = Strong
Meprobamate	**Avoid.** High rate of physical dependence; very sedating. QE = Moderate; SR = Strong

Table 1 (continued from page 3)

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Organ System/ Therapeutic Category/Drug(s)	Recommendation, Rationale, Quality of Evidence (QE) & Strength of Recommendation (SR)
Nonbenzodiazepine hypnotics ■ Eszopiclone ■ Zolpidem ■ Zaleplon	**Avoid chronic use (>90 days)** Benzodiazepine-receptor agonists that have adverse events similar to those of benzodiazepines in older adults (e.g., delirium, falls, fractures); minimal improvement in sleep latency and duration. QE = Moderate; SR = Strong
Ergot mesylates* Isoxsuprine*	**Avoid.** Lack of efficacy. QE = High; SR = Strong
Endocrine	
Androgens ■ Methyltestosterone* ■ Testosterone	**Avoid unless indicated for moderate to severe hypogonadism.** Potential for cardiac problems and contraindicated in men with prostate cancer. QE = Moderate; SR = Weak
Desiccated thyroid	**Avoid.** Concerns about cardiac effects; safer alternatives available. QE = Low; SR = Strong
Estrogens with or without progestins	**Avoid oral and topical patch. Topical vaginal cream: Acceptable to use low-dose intravaginal estrogen for the management of dyspareunia, lower urinary tract infections, and other vaginal symptoms.** Evidence of carcinogenic potential (breast and endometrium); lack of cardioprotective effect and cognitive protection in older women. Evidence that vaginal estrogens for treatment of vaginal dryness is safe and effective in women with breast cancer, especially at dosages of estradiol <25 mcg twice weekly. QE = High (Oral and Patch), Moderate (Topical); SR = Strong (Oral and Patch), Weak (Topical)
Growth hormone	**Avoid, except as hormone replacement following pituitary gland removal.** Effect on body composition is small and associated with edema, arthralgia, carpal tunnel syndrome, gynecomastia, impaired fasting glucose. QE = High; SR = Strong
Insulin, sliding scale	**Avoid.** Higher risk of hypoglycemia without improvement in hyperglycemia management regardless of care setting. QE = Moderate; SR = Strong
Megestrol	**Avoid.** Minimal effect on weight; increases risk of thrombotic events and possibly death in older adults. QE = Moderate; SR = Strong
Sulfonylureas, long-duration ■ Chlorpropamide ■ Glyburide	**Avoid.** Chlorpropamide: prolonged half-life in older adults; can cause prolonged hypoglycemia; causes SIADH Glyburide: higher risk of severe prolonged hypoglycemia in older adults. QE = High; SR = Strong
Gastrointestinal	
Metoclopramide	**Avoid, unless for gastroparesis.** Can cause extrapyramidal effects including tardive dyskinesia; risk may be further increased in frail older adults. QE = Moderate; SR = Strong
Mineral oil, given orally	**Avoid.** Potential for aspiration and adverse effects; safer alternatives available. QE = Moderate; SR = Strong
Trimethobenzamide	**Avoid.** One of the least effective antiemetic drugs; can cause extrapyramidal adverse effects. QE = Moderate; SR = Strong

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American Geriatrics Society Beers Criteria 2012 (continued)

Table 1 (continued from page 4)

TABLE 1: 2012 AGS Beers Criteria for Potentially Inappropriate Medication Use in Older Adults

Organ System/ Therapeutic Category/Drug(s)	Recommendation, Rationale, Quality of Evidence (QE) & Strength of Recommendation (SR)
Pain Medications	
Meperidine	**Avoid.** Not an effective oral analgesic in dosages commonly used; may cause neurotoxicity; safer alternatives available. QE = High; SR = Strong
Non-COX-selective NSAIDs, oral ▪ Aspirin >325 mg/day ▪ Diclofenac ▪ Diflunisal ▪ Etodolac ▪ Fenoprofen ▪ Ibuprofen ▪ Ketoprofen ▪ Meclofenamate ▪ Mefenamic acid ▪ Meloxicam ▪ Nabumetone ▪ Naproxen ▪ Oxaprozin ▪ Piroxicam ▪ Sulindac ▪ Tolmetin	**Avoid chronic use unless other alternatives are not effective and patient can take gastroprotective agent (proton-pump inhibitor or misoprostol).** Increases risk of GI bleeding/peptic ulcer disease in high-risk groups, including those ≥75 years old or taking oral or parenteral corticosteroids, anticoagulants, or antiplatelet agents. Use of proton pump inhibitor or misoprostol reduces but does not eliminate risk. Upper GI ulcers, gross bleeding, or perforation caused by NSAIDs occur in approximately 1% of patients treated for 3–6 months, and in about 2%–4% of patients treated for 1 year. These trends continue with longer duration of use. QE = Moderate; SR = Strong
Indomethacin Ketorolac, includes parenteral	**Avoid.** Increases risk of GI bleeding/peptic ulcer disease in high-risk groups (See Non-COX selective NSAIDs). Of all the NSAIDs, indomethacin has most adverse effects. QE = Moderate (Indomethacin), High (Ketorolac); SR = Strong
Pentazocine*	**Avoid.** Opioid analgesic that causes CNS adverse effects, including confusion and hallucinations, more commonly than other narcotic drugs; is also a mixed agonist and antagonist; safer alternatives available. QE = Low; SR = Strong
Skeletal muscle relaxants ▪ Carisoprodol ▪ Chlorzoxazone ▪ Cyclobenzaprine ▪ Metaxalone ▪ Methocarbamol ▪ Orphenadrine	**Avoid.** Most muscle relaxants poorly tolerated by older adults, because of anticholinergic adverse effects, sedation, increased risk of fractures; effectiveness at dosages tolerated by older adults is questionable. QE = Moderate; SR = Strong

*Infrequently used drugs. Table 1 Abbreviations: ACEI, angiotensin converting-enzyme inhibitors; ARB, angiotensin receptor blockers; CNS, central nervous system; COX, cyclooxygenase; CrCl, creatinine clearance; GI, gastrointestinal; NSAIDs, nonsteroidal anti-inflammatory drugs; SIADH, syndrome of inappropriate antidiuretic hormone secretion; SR, Strength of Recommendation; TCAs, tricyclic antidepressants; QE, Quality of Evidence

TABLE 2: 2012 AGS Beers Criteria for Potentially Inappropriate Medication Use in Older Adults Due to Drug-Disease or Drug-Syndrome Interactions That May Exacerbate the Disease or Syndrome

Disease or Syndrome	Drug(s)	Recommendation, Rationale, Quality of Evidence (QE) & Strength of Recommendation (SR)
Cardiovascular		
Heart failure	NSAIDs and COX-2 inhibitors	**Avoid.**
	Nondihydropyridine CCBs (avoid only for systolic heart failure) ▪ Diltiazem ▪ Verapamil	Potential to promote fluid retention and/or exacerbate heart failure.
	Pioglitazone, rosiglitazone	QE = Moderate (NSAIDs, CCBs, Dronedarone), High (Thiazolidinediones (glitazones)), Low (Cilostazol); SR = Strong
	Cilostazol Dronedarone	

Table 2 (continued from page 5)

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Disease or Syndrome	Drug(s)	Recommendation, Rationale, Quality of Evidence (QE) & Strength of Recommendation (SR)
Syncope	Acetylcholinesterase inhibitors (AChEIs) Peripheral alpha blockers ▪ Doxazosin ▪ Prazosin ▪ Terazosin Tertiary TCAs Chlorpromazine, thioridazine, and olanzapine	**Avoid.** Increases risk of orthostatic hypotension or bradycardia. QE = High (Alpha blockers), Moderate (AChEIs, TCAs and antipsychotics); SR = Strong (AChEIs and TCAs), Weak (Alpha blockers and antipsychotics)
Central Nervous System		
Chronic seizures or epilepsy	Bupropion Chlorpromazine Clozapine Maprotiline Olanzapine Thioridazine Thiothixene Tramadol	**Avoid.** Lowers seizure threshold; may be acceptable in patients with well-controlled seizures in whom alternative agents have not been effective. QE = Moderate; SR = Strong
Delirium	All TCAs Anticholinergics (see online for full list) Benzodiazepines Chlorpromazine Corticosteroids H₂-receptor antagonist Meperidine Sedative hypnotics Thioridazine	**Avoid.** Avoid in older adults with or at high risk of delirium because of inducing or worsening delirium in older adults; if discontinuing drugs used chronically, taper to avoid withdrawal symptoms. QE = Moderate; SR = Strong
Dementia & cognitive impairment	Anticholinergics (see online for full list) Benzodiazepines H₂-receptor antagonists Zolpidem Antipsychotics, chronic and as-needed use	**Avoid.** Avoid due to adverse CNS effects. Avoid antipsychotics for behavioral problems of dementia unless non-pharmacologic options have failed and patient is a threat to themselves or others. Antipsychotics are associated with an increased risk of cerebrovascular accident (stroke) and mortality in persons with dementia. QE = High; SR = Strong
History of falls or fractures	Anticonvulsants Antipsychotics Benzodiazepines Nonbenzodiazepine hypnotics ▪ Eszopiclone ▪ Zaleplon ▪ Zolpidem TCAs/SSRIs	**Avoid unless safer alternatives are not available; avoid anticonvulsants except for seizure.** Ability to produce ataxia, impaired psychomotor function, syncope, and additional falls; shorter-acting benzodiazepines are not safer than long-acting ones. QE = High; SR = Strong
Insomnia	Oral decongestants ▪ Pseudoephedrine ▪ Phenylephrine Stimulants ▪ Amphetamine ▪ Methylphenidate ▪ Pemoline Theobromines ▪ Theophylline ▪ Caffeine	**Avoid.** CNS stimulant effects. QE = Moderate; SR = Strong
Parkinson's disease	All antipsychotics (see online publication for full list, except for quetiapine and clozapine) Antiemetics ▪ Metoclopramide ▪ Prochlorperazine ▪ Promethazine	**Avoid.** Dopamine receptor antagonists with potential to worsen parkinsonian symptoms. Quetiapine and clozapine appear to be less likely to precipitate worsening of Parkinson disease. QE = Moderate; SR = Strong

American Geriatrics Society Beers Criteria 2012 (continued)

Table 2 (continued from page 6)

TABLE 2: 2012 AGS Beers Criteria for Potentially Inappropriate Medication Use in Older Adults Due to Drug-Disease or Drug-Syndrome Interactions That May Exacerbate the Disease or Syndrome

Disease or Syndrome	Drug(s)	Recommendation, Rationale, Quality of Evidence (QE) & Strength of Recommendation (SR)
Gastrointestinal		
Chronic constipation	Oral antimuscarinics for urinary incontinence ■ Darifenacin ■ Fesoterodine ■ Oxybutynin (oral) ■ Solifenacin ■ Tolterodine ■ Trospium Nondihydropyridine CCB ■ Diltiazem ■ Verapamil First-generation antihistamines as single agent or part of combination products ■ Brompheniramine (various) ■ Carbinoxamine ■ Chlorpheniramine ■ Clemastine (various) ■ Cyproheptadine ■ Dexbrompheniramine ■ Dexchlorpheniramine (various) ■ Diphenhydramine ■ Doxylamine ■ Hydroxyzine ■ Promethazine ■ Triprolidine Anticholinergics/antispasmodics (see online for full list of drugs with strong anticholinergic properties) ■ Antipsychotics ■ Belladonna alkaloids ■ Clidinium-chlordiazepoxide ■ Dicyclomine ■ Hyoscyamine ■ Propantheline ■ Scopolamine ■ Tertiary TCAs (amitriptyline, clomipramine, doxepin, imipramine, and trimipramine)	**Avoid unless no other alternatives.** Can worsen constipation; agents for urinary incontinence: antimuscarinics overall differ in incidence of constipation; response variable; consider alternative agent if constipation develops. QE = High (For Urinary Incontinence), Moderate/Low (All Others); SR = Strong
History of gastric or duodenal ulcers	Aspirin (>325 mg/day) Non–COX-2 selective NSAIDs	**Avoid unless other alternatives are not effective and patient can take gastroprotective agent (proton-pump inhibitor or misoprostol).** May exacerbate existing ulcers or cause new/additional ulcers. QE = Moderate; SR = Strong
Kidney/Urinary Tract		
Chronic kidney disease stages IV and V	NSAIDs Triamterene (alone or in combination)	**Avoid.** May increase risk of kidney injury. May increase risk of acute kidney injury. QE = Moderate (NSAIDs), Low (Triamterene); SR = Strong (NSAIDs), Weak (Triamterene)
Urinary incontinence (all types) in women	Estrogen oral and transdermal (excludes intravaginal estrogen)	**Avoid in women.** Aggravation of incontinence. QE = High; SR = Strong

Table 2 (continued from page 7)

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Disease or Syndrome	Drug(s)	Recommendation, Rationale, Quality of Evidence (QE) & Strength of Recommendation (SR)
Lower urinary tract symptoms, benign prostatic hyperplasia	Inhaled anticholinergic agents Strongly anticholinergic drugs, except antimuscarinics for urinary incontinence (see Table 9 for complete list).	**Avoid in men.** May decrease urinary flow and cause urinary retention. QE = Moderate; SR = Strong (Inhaled agents), Weak (All others)
Stress or mixed urinary incontinence	Alpha-blockers ■ Doxazosin ■ Prazosin ■ Terazosin	**Avoid in women.** Aggravation of incontinence. QE = Moderate; SR = Strong

Table 2 Abbreviations: CCBs, calcium channel blockers; AChEIs, acetylcholinesterase inhibitors; CNS, central nervous system; COX, cyclooxygenase; NSAIDs, nonsteroidal anti-inflammatory drugs; SR, Strength of Recommendation; SSRIs, selective serotonin reuptake inhibitors; TCAs, tricyclic antidepressants; QE, Quality of Evidence

TABLE 3: 2012 AGS Beers Criteria for Potentially Inappropriate Medications to Be Used with Caution in Older Adults

Drug(s)	Recommendation, Rationale, Quality of Evidence (QE) & Strength of Recommendation (SR)
Aspirin for primary prevention of cardiac events	**Use with caution in adults ≥80 years old.** Lack of evidence of benefit versus risk in individuals ≥80 years old. QE = Low; SR = Weak
Dabigatran	**Use with caution in adults ≥75 years old or if CrCl <30 mL/min.** Increased risk of bleeding compared with warfarin in adults ≥75 years old; lack of evidence for efficacy and safety in patients with CrCl <30 mL/min QE = Moderate; SR = Weak
Prasugrel	**Use with caution in adults ≥75 years old.** Greater risk of bleeding in older adults; risk may be offset by benefit in highest-risk older patients (eg, those with prior myocardial infarction or diabetes). QE = Moderate; SR = Weak
Antipsychotics Carbamazepine Carboplatin Cisplatin Mirtazapine SNRIs SSRIs TCAs Vincristine	**Use with caution.** May exacerbate or cause SIADH or hyponatremia; need to monitor sodium level closely when starting or changing dosages in older adults due to increased risk. QE = Moderate; SR = Strong
Vasodilators	**Use with caution.** May exacerbate episodes of syncope in individuals with history of syncope. QE = Moderate; SR = Weak

Table 3 Abbreviations: CrCl, creatinine clearance; SIADH, syndrome of inappropriate antidiuretic hormone secretion; SSRIs, selective serotonin reuptake inhibitors; SNRIs, serotonin–norepinephrine reuptake inhibitors; SR, Strength of Recommendation; TCAs, tricyclic antidepressants; QE, Quality of Evidence

Geriatric Fall Assessment

Background: Trauma is one of the leading causes of death in the geriatric population. Falls, even relatively minor impact falls, often represent a major traumatic mechanism in the geriatric population and can lead to significant morbidity and mortality compared to younger patients. As the population continues to age these falls will continue to increase disproportionately to other age groups. In fact, over a five-year period between 2005 and 2009, fall-related visits to the ED increased approximately 37.5%.[119] These falls are increasingly common, occurring in up to 1/3 of the population over 65 years old and surge to 51% in those older than 85.[120] Furthermore, the financial burden of fall-related injuries and hospitalizations are estimated to be more than 28 billion dollars each year.[120-123]

The appropriate evaluation of a patient who either has fallen or is at high risk of falling involves not only a thorough assessment for traumatic injuries, but an assessment of the cause of the fall and an estimation of future fall risk. This assessment is often a complex and time-consuming evaluation and usually involves a multifaceted and multi-disciplined approach. For those geriatric patients who present to the ED after a fall, traumatic injuries may be "occult," presenting without "classic" signs or symptoms. High-risk injuries such as blunt head trauma, spinal fractures and hip fractures warrant a higher degree of suspicion and extensive workups.[124-127] Furthermore, the cause of the fall is often multifactorial, resulting from a complex combination of causes, described as the "geriatric syndrome."

The goal of the evaluation of a patient who has fallen or is at increased risk of falling is therefore to diagnose and treat traumatic injuries, discover and manage the predisposing causes of the fall, and ultimately to prevent complications of falling and future falls. Unfortunately, predicting future falls in geriatric ED patients is challenging. [128]The ED plays a critical role in initiating appropriate evaluation, disposition, and follow up in order to meet these goals.[129-131] However, in spite of this safety-net position within the health care system, few fall assessments are initiated appropriately from the ED.[132] Studies have shown that having appropriate policies and procedures in place can play a pivotal role in increasing the detection of at-risk seniors and possibly prevent future falls and injuries.[133, 134]

Policy: It is the policy of the Geriatric ED to initiate a comprehensive evaluation for geriatric patients presenting after a fall or for those who may be at high risk for a future fall. Patients will be evaluated for injuries, including those injuries that may be "occult" in the geriatric population. Furthermore, patients will be evaluated for causes of and risk factors for falls. Patients will be assessed prior to disposition for safety with the goal to prevent further injury and falls.

Required Resources:
- Fall risk assessment tool: Although many hospitals have a comprehensive fall assessment tool for in-patients, these are often not appropriate for implementation in the ED setting.[135, 136] An appropriate tool is a direct, easily implemented tool to screen for risk of falls. Specific policies and procedures should be in place for the assessment and evaluation of patients presenting to the ED with a high risk of fall or those who have suffered a fall. Assessment should include both intrinsic and extrinsic risk factors for falls.
- Radiology imaging protocols focused on the special evaluation of the geriatric population.[137]
- A multi-disciplinary team including PT/OT, social work, nursing, physician and "mid-level" providers (where appropriate) is recommended.
- In order to better facilitate the care of seniors, EDs should make an effort to align their physical and personnel resources with the physical needs of the geriatric patient. Several elements have been suggested as possible interventions for the prevention of fall within the ED.[7]
- Equipment to prevent falls in the ED should include:

- o Rubber or nonskid flood surfaces/mats
- o Even floor surfaces
- o Handrails on walls and hallways
- o Aisle lighting
- o Bedside commodes and grab bars in restrooms
- o Bedrails properly positioned and functioning
- o Patient gown and hospital clothing that minimize fall risk (long, baggy, loose tie strings, etc)
- Expedited outpatient follow-up for those patients discharged from the ED/hospital to include home safety assessments is recommended.
- Walkers and other gait assistance devices should be available for patients on discharge.

Procedure: All geriatric patients presenting after a fall will be assessed by the attending physician. Although the cause of the fall may be straightforward, a thoughtful assessment begins by answering the question "if this patient was a healthy 20-year-old, would he/she have fallen?" If the answer is "no," then an assessment of the underlying cause of the fall should be more comprehensive and should include:

- History is the most critical component of the evaluation of a patient with or at risk for a fall. Several studies and authorities have suggested that there are several key elements to an appropriate history in the patients with a fall.[121, 138-144] These key historical elements are as follows:
  - o Age greater than 65
  - o Location and cause of fall
  - o Difficulty with gait and/or balance
  - o Falls in the previous (XX time)
  - o Time spent on floor or ground
  - o Loss of Consciousness/AMS
  - o Near/syncope/orthostasis
  - o Melena
  - o Specific comorbidities such as dementia, Parkinson's, stroke, diabetes, hip fracture and depression
  - o Visual or neurological impairments such peripheral neuropathies
  - o Alcohol use
  - o Medications
  - o Activities of daily living
  - o Appropriate foot wear
- Medication assessment should be performed on all patients at risk or who have suffered from a fall. Special attention should be to those patients currently taking any of the following classes of medications: vasodilators, diuretics, antipsychotics sedative/hypnotics, and other high-risk medications.[114]
- Orthostatic blood pressure assessment
- Neurologic assessment with special attention to presence/absence of neuropathies and proximal motor strength
- Although there is no recommended set of diagnostic tests for the cause of a fall, a threshold should be maintained for obtaining an EKG, complete blood count, standard electrolyte panel, measurable medication levels and appropriate imaging.
- Evaluation of the patient for injury should include a complete head to toe evaluation for ALL patients, including those presenting with seemingly isolated injuries.
- Safety assessment prior to discharge should include an evaluation of gait, and a "get up and go test" (reference). Patients not able to rise from the bed, turn, and steadily ambulate out of the ED should be reassessed. Admission should be considered if patient safety cannot be assured.
- All patients admitted to the hospital after a fall will be evaluated by PT/OT.

Performance Improvement:
Home assessments for safety for all patients evaluated for a fall.[145, 146]

Delirium and Dementia in the Geriatric Emergency Department

Background: Delirium and agitation are among the most common problems in the geriatric adult, occurring in approximately 25% of hospitalized geriatric patients.[147, 148] Consequences of delirium include increased mortality, morbidity, extended hospital length-of-stay, increased need for restraints and/or added staffing (sitters), and increased potential for lasting functional decline and subsequent need for nursing home placement.[149, 150]

The ED is challenged with providing a comprehensive, thoughtful evaluation of patients presenting with delirium.[51, 151-153] One issue is that dementia and mild cognitive impairment are common in geriatric ED patients and often undetected.[52, 152, 154] Routine cognitive screening and documentation provides a formal assessment of mental status at the index ED evaluation, but also provides a baseline for future ED visits. Several dementia screening instruments have been validated in ED settings.[155] When done well, this assessment can lead to directed interventions that can positively affect the duration of the patient's hospitalization. The features that distinguish dementia and delirium are presented in the Table. Often the cause of a delirium is multifactorial, including acute medical illness overlying baseline cognitive dysfunction, medication effects and interactions, and decompensating co- morbidities. An appropriate evaluation and management of each of these factors is critical to a positive outcome.[156]

Another challenge for the ED is the effective management of agitated geriatric patients. Medications and restraints (both chemical and physical) are critical interventions that, when used well, can improve patient health and safety, but when used inappropriately can actually increase the severity or length of a delirium. Fundamentally, the treatment of the geriatric patient with this concern is very different from that of a younger patient with similar concerns.
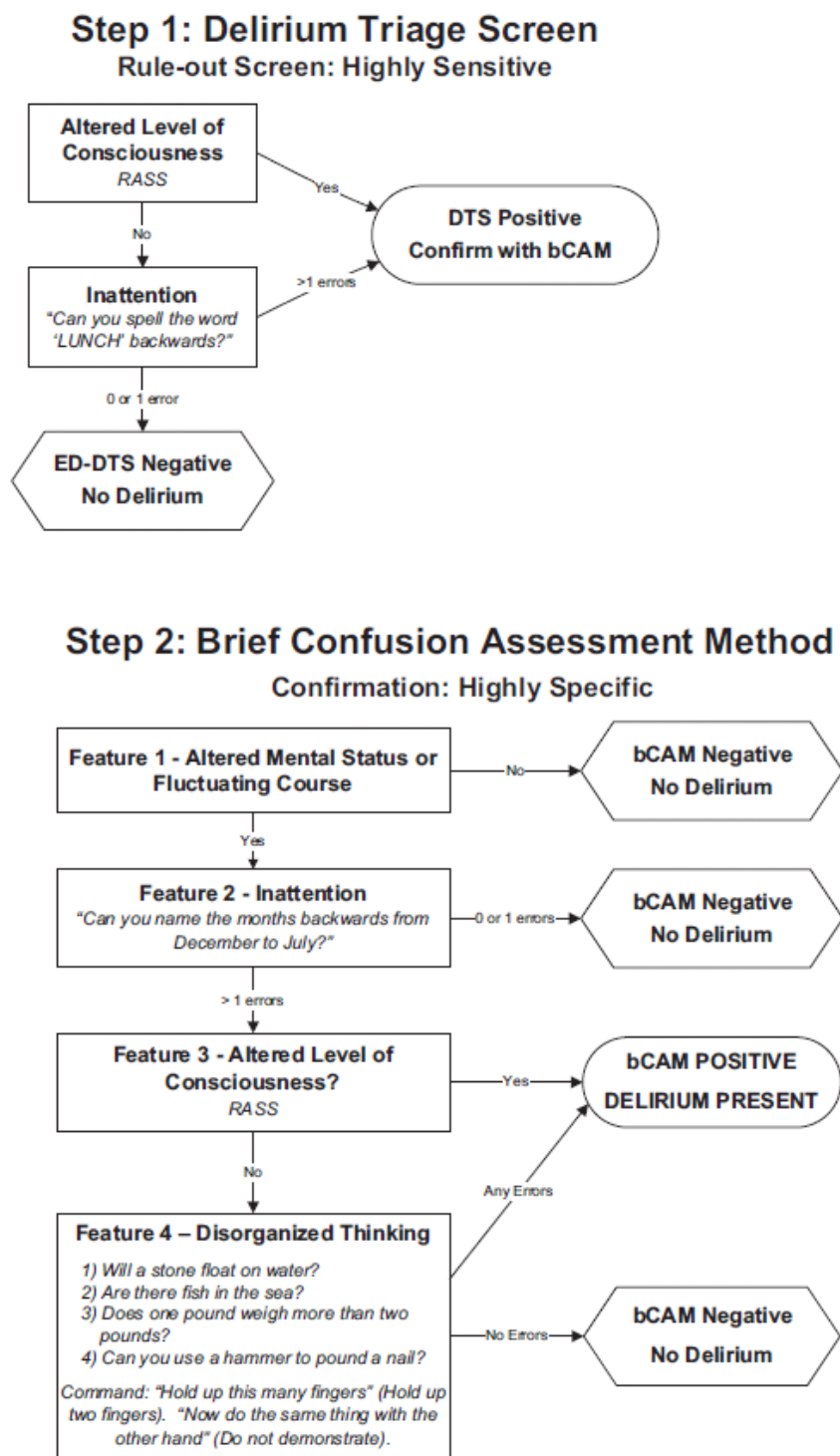
Policy: It is the policy of the Geriatric ED to comprehensively evaluate geriatric adults presenting with delirium, encephalopathy, or an altered mental status. Coordination of care, with special attention to directing interventions towards improving reversible causes and limiting factors that extend or cause delirium is the main goal.

It is the policy of the Geriatric ED to limit the use of chemical and physical restraints to only those situations in which they are absolutely necessary. Appropriate use of medications and alternative safety measures will be maximized to manage the agitated geriatric patient.[156]

Procedure:
Validated screening tools will be used to identify patients presenting with dementia and delirium. The assessment for delirium will use a two-step process. Step 1 (Figure 4) is the highly sensitive delirium triage screen. Step 2 is the highly specific Brief Confusion Assessment Method.[157] A variety of ED-appropriate dementia and mild cognitive impairment screening instruments have been validated, but all are most useful to reduce the probability of non-delirium cognitive impairment (dementia or mild cognitive impairment) rather than to rule-in the diagnosis. An assessment for dementia should be conducted after delirium screening. One of the most accurate dementia screening instruments is reproduced below in Figure 5.[155, 158]

Figure 4. Delirium Screening Instruments

Step 1: Delirium Triage Screen
Rule-out Screen: Highly Sensitive

```
Altered Level of
Consciousness          ──Yes──┐
RASS                          │
   │                          ▼
   No                  ┌──────────────────┐
   │                  │  DTS Positive     │
   ▼                  │  Confirm with bCAM │
Inattention    ──>1 errors──►              │
"Can you spell the word       └──────────────────┘
'LUNCH' backwards?"

   │
0 or 1 error
   │
   ▼
ED-DTS Negative
No Delirium
```

Step 2: Brief Confusion Assessment Method
Confirmation: Highly Specific

```
Feature 1 - Altered Mental Status or   ──No──►   bCAM Negative
Fluctuating Course                                No Delirium
   │
  Yes
   │
   ▼
Feature 2 - Inattention                ─0 or 1 errors─►  bCAM Negative
"Can you name the months backwards from               No Delirium
December to July?"
   │
> 1 errors
   │
   ▼
Feature 3 - Altered Level of           ──Yes──►  bCAM POSITIVE
Consciousness?                                   DELIRIUM PRESENT
RASS                              Any Errors ─────┘
   │
  No
   │
   ▼
Feature 4 – Disorganized Thinking

1) Will a stone float on water?
2) Are there fish in the sea?
3) Does one pound weigh more than two
   pounds?
4) Can you use a hammer to pound a nail?

Command: "Hold up this many fingers" (Hold up   ──No Errors──►  bCAM Negative
two fingers). "Now do the same thing with the                  No Delirium
other hand" (Do not demonstrate).
```

Figure 5. The <u>Short Blessed Test</u> (SBT) for ED Dementia Screening

Adapted from Katzman R, Brown T, Fuld P, et al. Validation of a short orientation-memory-concentration test of cognitive impairment. *Am J Psvchiatry*. 1983;140(6):734-739.

Instructions to the patient: "Now I would like to ask you some questions to check your memory and concentration. Some of them may be easy and some of them may be hard."

		Correct (0)	**Incorrect (1)**
1)	What year is it now? _____	**(0)**	**(1)**
2)	What month is this? _____	**(0)**	**(1)**

Please repeat this name and address after me:
John Brown, 42 Market Street, Chicago
John Brown, 42 Market Street, Chicago
John Brown, 42 Market Street, Chicago

(underline words repeated correctly in each trial)
Trials to learning ____ (if unable to do in 3 trials = C)

3) Without looking at your watch or the clock, tell me what time it is.
   (If response is vague, prompt for specific response)

	Correct (0)	**Incorrect (1)**
(within 1-hour) _____	**(0)**	**(1)**
Actual time: _____		

4) Count aloud backwards from 20 to 1   **0 1 2 Errors**

(mark correctly sequenced numerals)
If subject starts counting forward or forgets the task, repeat instructions and score one error.

20 19 18 17 16 15 14 13 12 11
10   9   8   7   6   5   4   3   2   1

5) Say the months of the year in reverse order.
   If the tester needs to prompt with the last name of the month of the year, one error should be scored.
   (Mark correctly sequenced months.)

D N O S A JL JN MY AP MR F J   **0 1 2 Errors**

6) Repeat the name and address you were asked to remember.

(John Brown, 42 Market Street, Chicago)   **0 1 2 3 4 5 Errors**
_____, ____, ___, _____, _____

Scoring the Short Blessed Test

Item #	Errors (0-5)	Weighting Factor	Final Item Score
1		x 4	
2		x 3	
3		x 3	
4		x 2	
5		x 2	
6		x 2	
			Sum Total = _____ (Range 0-28)

0-4	Normal Cognition
5-9	Questionable Impairment
≥ 10	Impairment consistent with dementia

The evaluation of a mental status change should begin with an understanding of the difference between a delirium and a progression of an underlying dementia.

The following criteria can be helpful to diagnose an acute delirium:

TABLE: Distinguishing Features Between Delirium and Dementia

Feature	Delirium	Dementia
Onset	Acute	Insidious
Course	Fluctuating	Constant
Attention	Disordered	Generally Preserved[*]
Consciousness	Disordered	Generally Preserved[*]
Hallucinations	Often Present	Generally Absent[*]

[*] = Variable in Advanced Dementia

- As mental status changes may wax and wane, delirium screening will be reevaluated on a regular basis.
- Upon diagnosis of an acute delirium, attention will be paid to underlying causes including, but not limited to:
  - Infections
    - UTI, pneumonia most commonly
  - Medications
    - Anti-cholinergic medications
    - Sedative/hypnotics
    - Narcotics
    - Any new medication, especially if multiple medications have been recently added
  - Electrolyte imbalances
  - Alcohol/drug use or withdrawal
  - New focal neurologic findings should guide an evaluation for stroke syndromes

- Any geriatric patient being admitted to the hospital, regardless of primary diagnosis, should be evaluated for the presence/absence of the following risk factors for the development of a delirium while hospitalized:
  o Decreased vision or hearing
  o Decreased cognitive ability
  o Severe illness
  o Dehydration/pre-renal azotemia
    *The presence of 1-2 factors increases the risk of inpatient delirium by 2.5x, the presence of 3-4 factors increases the risk of inpatient delirium by >9x.
- Patients presenting with agitated delirium should be managed in a manner that improves safety and decreases the likelihood of injury. A therapeutic environment should be provided whenever possible. Preventative measures should include:
  o Eliminate or minimize identified risk factors
  o Avoid high-risk medications
  o Prevent/promptly and appropriately treat infections
  o Prevent/promptly treat dehydration and electrolyte disturbances.
  o Provide adequate pain control
  o Maximize oxygen delivery (supplemental oxygen, blood, and BP support as needed).
  o Use sensory aids as appropriate.
  o Foster orientation: frequently reassure and reorient patient (unless patient becomes agitated); use easily visible calendars, clocks, caregiver identification; carefully explain all activities; communicate clearly
  o Regulate bowel/bladder function.
  o Provide adequate nutrition
  o Increase supervised mobility
  o Increase awareness and vision whenever possible.
  o The use of restraints should be minimized whenever possible.
  o Chemical restraint/sedation should be minimized whenever possible.
    ▪ When necessary, haloperidol is recommended over lorazepam for acute treatment.
  o Provide appropriate sensory stimulation: quiet room; adequate light; one task at a time; noise-reduction strategies
  o Foster familiarity: encourage family/friends to stay at bedside; bring familiar objects from home; maintain consistency of caregivers; minimize relocations
  o Communicate clearly, provide explanations
  o Reassure and educate family
  o Minimize invasive interventions

Recommended Resources:
- Sitters
- Dry erase boards and markers to increase communication and orientation

Performance Improvement:
- Physical restraint utilization hours/days
- Use of benzodiazepines in geriatric patients with agitated delirium
- Utilization rates of orientation techniques including dry erase boards

Palliative Care in the Geriatric ED

Background: The provision of appropriate end-of-life care in the geriatric population is essential to a

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successful Geriatric ED program.[74, 78, 159] The ED will provide access to palliative care and end-of-life care for medically complex patients in the Geriatric ED. By providing multidisciplinary teams for palliative care interventions, recent literature suggests this will improve quality of life,[160] reduce hospital length of stay [161] and ED recidivism,[162] improve patient and family satisfaction,[163] result in less utilization of intensive care,[164] and provide significant cost savings.[164, 165]

Policy: It is the policy of the Geriatric ED to recognize the role of palliative and end-of-life care. This includes several aspects of emergency practice already in place such as symptom management and discussion of critical decisions with family/caregivers.

Required Resources:
- Establish clinical protocol to identify ED patients who might benefit from palliative interventions
  - Pain management
  - Non-pain symptom management
  - Comfort care
  - Coordination of in-house palliative care team

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Criteria

for Levels 1, 2 & 3

Glossary of key terms

Accreditation	The process whereby an association or agency grants public recognition to a hospital, health care institution or specialized program of care to ensure it has met certain established qualifications or standards as determined through initial and periodic evaluations. Both the qualifications and evaluations are determined by the accreditation organization.
Standardization	The process by which a product of service is assessed against standards and specifications
Certification	A voluntary process by which a nongovernmental agency or association grants recognition to an individual/organization who has met certain predetermined qualifications specified by that agency or association
Recognition	Award, something given in recognition of an achievement
GED	Geriatric Emergency Department
GEM	Geriatric Emergency Medicine
ACEP	American College of Emergency Physicians
SAEM	Society for Academic Emergency Medicine
AGS	American Geriatrics Society
ENA	Emergency Nurses Association

Source: Knapp, J. (2000). Designing certification and accreditation programs. *American Society of Association Executives.*

Certifying an Emergency Department as Senior-Friendly – Why and How?

The proportion of the United States (U.S.) population over 65 years of age is projected to nearly double from 43 million in 2012 to 83 million in 2050.[1] Aging adults currently comprise 18% of total emergency department (ED) visits. This represents a 42% increase between 2002 and 2012 with anticipated continued expansion for decades to come.[2] Unique models of pre-hospital, ED, and inpatient geriatric healthcare delivery are being developed and evaluated partially because older adults are more likely to be admitted to the hospital after longer ED lengths of stay.[3] This population increase is partially responsible for the projected non-sustainable healthcare spending increase in the U.S. Health care spending is predicted to increase from the 2013 level of 17.4% of the U.S. gross domestic product (GDP) to 19.6% in 2024. At this point, medical costs will represent over 20% of U.S. GDP.[4,5]

The ED has historically been viewed as the front door of the hospital, determining use of inpatient versus outpatient resources. However a new model viewing the ED as the "front porch" of the hospital is emerging. In the "front porch" paradigm patients receive more definitive investigations and consultations in the ED without requiring a hospital admission. This practice evolution must occur without compromising patient safety or patient satisfaction.[6]

Figure 1. Projected number of U.S. residents 65 years and older
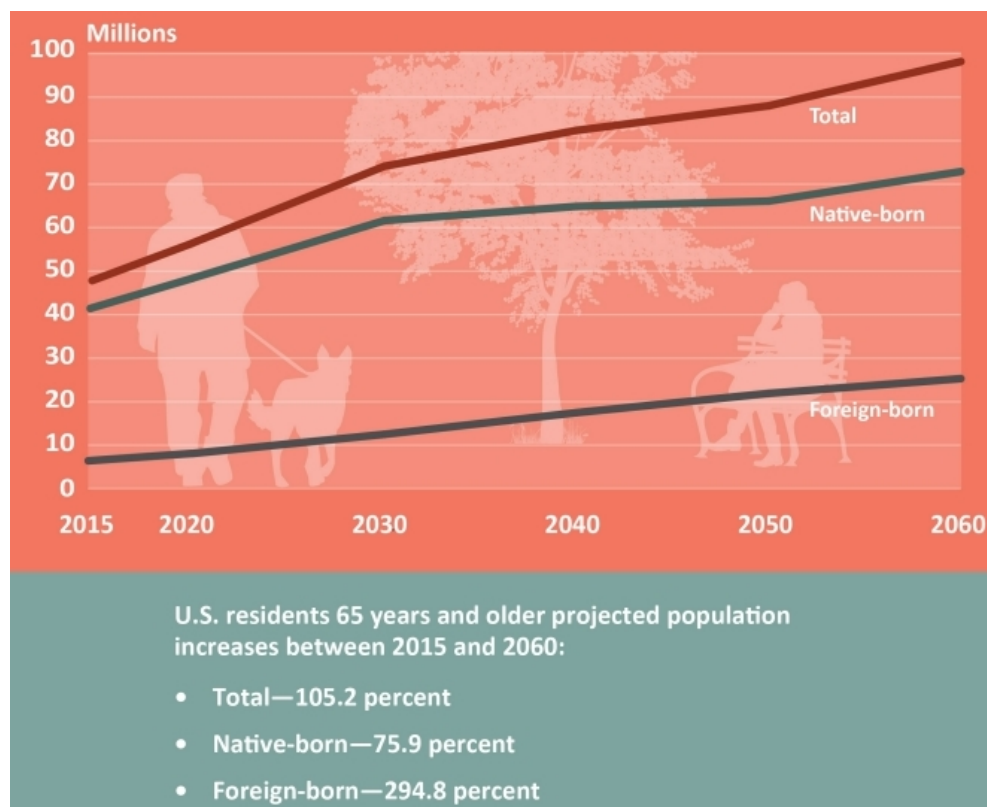
Source: https://www.census.gov/library/visualizations/2017/comm/cb17-ff08_older_americans.html

The American College of Emergency Physicians' Geriatric Section, in conjunction with the Society for Academic Emergency Medicine's Academy for Geriatric Emergency Medicine, the American Geriatrics Society, and Emergency Nurses Association have responded in a number of ways. These include the development of peer-reviewed and multi-stakeholder educational core competencies for certified emergency providers,[7] high-yield research opportunities to improve the underlying evidence-basis for specific recommendations,[8,9] and guidelines to focus resources on the most essential geriatric medical care priorities.[10] Implementation science (*also known as knowledge translation*) demonstrates the 17-year delay for only 14% of published recommendations to actually influence patient

care and improve patient outcomes.[11] Evidence shows how rare it is for ED nurses or physicians to follow published guidelines that recommend screening for common geriatric syndromes.,[12] These ED providers fail to identify delirium in up to 76% of cases,[13] and fail to provide recommended fall prevention interventions.[14] Dozens of U.S. hospitals have developed special emergency elder care processes, and refer to themselves as "Senior Friendly" or "Geriatric Emergency Departments" (GEDs). However, the attributes that differentiate these EDs from others lacking such processes remain poorly described. The characteristics of enhanced elder emergency services vary widely by location, with no standard reporting showing any improvement of patient outcomes .[15] How then can patients, healthcare providers, hospitals, or the public determine what enhancements truly improve elder emergency care? One approach is to standardize senior-friendly emergency care across multiple settings through an accreditation program based on objective measurable criteria.

Accreditation of facilities has long been used to assure and improve the quality of care rendered. From the first attempts in 1919 by the American College of Surgeons, accreditation programs have provided a framework of best practices and a level of public assurance regarding the quality of care provided. Trauma centers are an excellent example of a modern accreditation program that has impacted care. Early in their development, critics suggested trauma centers were unnecessary, that all general surgeons could provide equal care, and that postoperative rehabilitation in a community setting was preferred. However, trauma centers have had a positive impact on mortality and morbidity, and few today would argue against trauma center existence or certification, based on the recognized value created by these processes for patients, providers, and hospitals.

In this regard, accreditation of GEDs can provide value to patients, emergency physicians, and hospitals.

The value to our patients

- Accredited GEDs will provide a clearly defined set of measurable criteria, standardized to improve quality of emergency care for older adults.
- Patients and families can make more informed decisions when choosing a facility for care by searching for identified accredited GEDs.
- Patients will be protected from misleading marketing claims.
- There will be greater transparency regarding services provided in an emergency department
- Screening for geriatric syndromes improves the quality of life for older adults who otherwise might not receive such screening.
- Enhancements in policies, protocols, procedures, personnel, and equipment will improve health care delivery for older adults.
- Improving care for older adults will improve care for all patients. Complexity of care is not just age-based and additional resources can also be utilized for younger patients with multiple needs.

The value to our members

- ACEP accreditation provides members with maximal control and member participation in the criteria selected and the processes used to determine what is and what is not considered a GED.
- An ACEP-based program will emphasize those facets of geriatric emergency care that are most meaningful and feasible as determined by emergency physicians.
- ACEP accreditation will prevent the layering-on of unnecessary rules, additional educational requirements, and burdensome administrative obligations that could be imposed by accreditation from outside organizations.
- Availability of new resources helpful for patient care may be provided by hospitals that desire accreditation.
    - *For example*:

- New personnel such as physical therapists, care managers or social workers.
- Policies to expedite older patient discharge and care transitions.
- Equipment such as blanket warmers, walkers, and mattresses.
- Improvements to lighting and flooring in the ED.
- It will be important for our members to understand that every ED needs to have the basic resources to care for geriatric patients, which will be outlined our program. However, accreditation will highlight facilities that have advanced capabilities. Accreditation will provide a structure and a framework for improving care to rise to the next level.

The value to hospitals

- The structure of the program will be feasible in large and in small hospitals, permitting hospitals and hospital systems to improve care and attain accreditation.
- Cost for converting a standard treatment room to a geriatric room is about $1,500, making it affordable to all facilities.
- The program is flexible and designed to meet the needs of the community. In addition, by sharing innovations between accredited hospitals, institutions can choose to adopt those that are pertinent to their population.
- Geriatric EDs, when studied, have a lower admission rate, and a lower readmission rate to acute care hospitals and nursing homes. This not only reduces cost, but prevents hospital-acquired infections and reduces unnecessary procedures such as urinary catheters.

The value to ACEP

As the leader in emergency medicine, it is our duty to determine and promote best practices in the emergency care setting. GED accreditation:

- strengthens our brand and recognition with other organizations and the public.
- provides us an opportunity to work with AARP and other specialty organizations as patient advocates.
- provides an opportunity to partner with the CDC in injury prevention, specifically the fall prevention program.
- promotes the triple aim of healthcare and helps our members prepare for ACOs and population health.
- provides non-dues revenue for the college.

A key first step preceding accreditation is to distinguish higher and lower priorities based on general availability and anticipated patient-centric value. Establishing distinctions between sites that exhibit the highest level of senior-friendly care and other levels is also important. A working group of six ACEP Geriatric Emergency Medicine Section members identified by the ACEP President developed the following priorities and leveling recommendations over a series of meetings between November and December 2016. The following criteria relate to minimum standards across 3 levels of accreditation.

Level Three accreditation signifies excellence in older adult care as represented by one or more geriatric-specific initiatives that are reasonably expected to elevate the level of elder care in one or more specific areas. Additionally, personnel to implement these efforts are identified and trained.

Level Two accreditation identifies sites that have integrated and sustained older adult care initiatives into daily operations. They demonstrate interdisciplinary cooperation for delivery of senior-friendly services and have an established supervisor or director coordinating staff tasked with the daily performance of these services.

Level One accreditation defines an ED with, policies, guidelines, procedures, and staff (both within the ED and

throughout the institution) providing a coherent system of care targeting and measuring specific ED outcomes for older adults elevating ED operations and transitions of care both to and from the ED, all coordinated for the improved care of older adults. Additionally identified physical plant enhancements targeted to improve older adult care exist.

Criteria for any level of GED accreditation are comprised of the following seven categories:

a) Staffing
b) Education
c) Policies/protocols, guidelines and procedures
d) Quality improvement
e) Outcome measures
f) Equipment and supplies
g) Physical environment

The following section provides greater detail on accreditation criteria by level.

Level Three:

This is a basic standard of care that every ED should provide and focuses on the following domains:

a) Staffing:

1. The institution should ensure availability of at least one MD/DO on staff who can provide evidence of some focused emergency department physician education specifically relevant to the provision of emergency care of older people
2. The institution should ensure availability of at least one RN on staff who can provide evidence of some focused emergency nursing education specifically relevant to the provision of emergency care of older people

b) Education:

1. A physician champion / medical director is required for all levels of Geriatric ED. This physician champion / medical director must demonstrate focused training in geriatric emergency medicine that provides added expertise in the emergency care of older adults and added ability to teach other physicians and advanced practice providers how to improve this care.

   This training requirement must be demonstrated through coursework:
   1) focused on geriatric specific syndromes and concepts (e.g., atypical presentation of disease, changes with age, transitions of care) relevant to emergency medicine,

   2) focused on clinical issues nearly exclusive to geriatric ED patients (e.g., end of life care, dementia, delirium, systems of care for older adults), or

   3) discussing issues common to all ED patients but focused on the unique factors found in older adults (e.g., trauma in older adults, cardiac arrest care for the geriatric patient).

   Training in common emergency medicine conditions (e.g., stroke) that happen to affect older adults does not qualify for this requirement. Qualifying training courses may be in person, web-based (e.g., Geri-EM.com) or equivalent provided through or led by an authoritative resource. *Reading a book or credit for a topic search in Up to Date (or similar) do not qualify for this training requirement unless CME is earned for this activity.*

   - For physician champion / medical directors applying to lead Level 3 Geriatric EDs, 4 hours of education are required for the initial certification and for each renewal.

   These educational requirements may be demonstrated through appropriate geriatric-focused CME with completion certificates (please be ready to share these certificates and which of the above mentioned geriatric content this includes.) Alternatively, applicants may submit other coursework that they believe should fulfill this requirement for review by the GEDA Board of Governors.   The Board of Governors are under no obligation to accept this other coursework.

2. Appropriate education will relate to the eight domains of Geriatric EM as defined by Hogan et al.:
   a. Atypical presentations of disease
   b. Trauma including falls

      c.   Cognitive and Behavioral disorders
      d.   Emergency intervention modifications
      e.   Medication management/polypharmacy
      f.   Transitions of care
      g.   Effect of comorbid conditions/polymorbidity
      h.   End-of-life care

3. Education of nursing personnel about geriatric emergency care of older patients is critically important in a Geriatric ED. A department should document its nursing educational activity and submit the documentation for consideration. Some examples:

      a.   GENE course from Emergency Nurses Association
           https://www.ena.org/education/education/GENE/Pages/default.aspx
      b.   Emergency Department nursing modules from NICHE http://www.nicheprogram.org/knowledge-center/webinars/archived-webinars/
      c.   Locally developed nursing education modules

c) Policies/protocols, guidelines, and procedures:

Provide evidence of at least one geriatric-specific emergency care initiative (e.g. elder mistreatment, cognitive impairment, or other policies/ protocols / procedures.)

We are looking for protocols that specifically address the emergency care needs of older adults. These protocols or procedures should describe the process through which this care improvement activity takes place for older patients while in the ED and how it is tracked with regards to adherence and care. (i.e., Who does the process, on whom the process is done, and how the process is triggered, etc.)

Sites submitting hospital-wide policies / protocols / procedures should provide detailed explanation for how these are applied to older adults and address ED specific issues.

Examples:

- A hospital screen for cognitive impairment in older ED adults at risk for delirium with the Delirium Triage Screen followed by the Brief Confusion Assessment Method in all ED patients 65+ years of age at triage. This is a geriatric specific protocol done on ED patients.
- A hospital restraints protocol should provide additional information about how restraints are used during ED care of older adults and how this is different from protocols with younger patients;
- Urinary catheter policies should have a component describing how the policy is applied tracked with regards to implementation for older patients in the ED.
- A falls policy describing how patients that presented for a fall or at risk of a fall are screened for falls risk and measures are taken to reduce fall risk: for example: home assessment, physical therapy follow-up, etc. (Please note that if a Falls policy is chosen, it cannot be focused only on preventing in-hospital falls. It should to strive to identify older adults presenting to the ED with falls, as well as demonstrate a process that strives to reduce future risk of falling after ED or hospital discharge.)

d) Quality improvement – *N/A*

e) Outcome measures – *N/A*

f) Equipment and supplies:

Access to mobility aids (4-point walkers, canes) for use in the ED.

g) **Physical environment:**

Easy access to food and drink, 24 hours a day

Level Two:

a) **Staffing:**

1. **Physician**
   The institution should provide an emergency physician 'champion' or medical director who possesses expertise specifically relevant to the provision of emergency care of older people with the following responsibilities:
   a. to act as Geriatric EM educational leader/coordinator for EM providers across multiple disciplines
   b. to Oversee GED operations including:
      i. Implementation and regular assessment of protocol and policy guidelines of geriatric-specific initiatives
      ii. Coordination/guidance of GED staff workflow
      iii. Coordination of interdisciplinary team workflow in the GED
   c. to act as the Quality improvement team leader overseeing adherence to geriatric-specific protocols
   d. to develop and oversee outcome measures documentation including specific GED process and outcome metrics
   e. to act as Coordinator for maintenance of GED environment (i.e., specific equipment and supplies)
   f. to Liaison between hospital leadership and the GED
   g. to act as Quality assurance team leader for geriatric patient case reviews/complaints
   h. to Coordinator of GEM research initiatives (*if applicable*)

   -EDs that seek accreditation but lack involvement of an emergency physician in the Geriatric ED Medical Director position should appoint co-directors of the geriatric emergency department.   In these cases, one GED co-director would be an emergency physician who can then partner with the other co-director in the role of GED director.

   -EDs that seek accreditation but lack any emergency physicians capable of serving as co-Medical Director at minimum must request a special exemption to appoint a non-emergency physician as Geriatric ED Medical Director for no more than three years while an emergency physician is recruited.   Renewal of the exemption is unlikely without remarkable circumstances (e.g., an extremely rural hospital, failure of extensive attempts to recruit, etc.) We ask that this request come from hospital leadership (e.g., Chief Medical Officer or equivalent) to demonstrate their understanding of the issues present and commitment to adhering to the GEDA requirements in time for the first renewal.

2. **Nursing**
   The institution should provide an identified nurse case manager or transitional care nurse or equivalent who should be present in the ED for at least **56** hours/week of clinical coverage. This nurse case manager or social worker shall have responsibility for complex geriatric patient care and responsibility for geriatric patient capacity development/performance improvement within the ED.

3. **Interdisciplinary**
   The institution should ensure availability of an Inter-disciplinary geriatric assessment team, including at least 2 of the following roles available to the ED.
   a. Physiotherapy, occupational therapy, social work, or medication management

4. Administrative

The institution should ensure that at least one member of the executive/administrative team of the hospital should have, as a part of his/her portfolio, supervision of the Geriatric ED program and be actively committed to enhancing senior-friendly emergency care.

b) Education:

4. A physician champion / medical director is required for all levels of Geriatric ED. This physician champion / medical director must demonstrate focused training in geriatric emergency medicine that provides added expertise in the emergency care of older adults and added ability to teach other physicians and advanced practice providers how to improve this care.

   This training requirement must be demonstrated through coursework:
   2) focused on geriatric specific syndromes and concepts (e.g., atypical presentation of disease, changes with age, transitions of care) relevant to emergency medicine,

   2) focused on clinical issues nearly exclusive to geriatric ED patients (e.g., end of life care, dementia, delirium, systems of care for older adults), or

   3) discussing issues common to all ED patients but focused on the unique factors found in older adults (e.g., trauma in older adults, cardiac arrest care for the geriatric patient).

   Training in common emergency medicine conditions (e.g., stroke) that happen to affect older adults does not qualify for this requirement. Qualifying training courses may be in person, web-based (e.g., Geri-EM.com) or equivalent provided through or led by an authoritative resource. *Reading a book or credit for a topic search in Up to Date (or similar) do not qualify for this training requirement unless CME is earned for this activity.*

   - For physician champion / medical directors applying to lead Level 2 Geriatric EDs, 6 hours of education are required for the initial certification and for each renewal.

   These educational requirements may be demonstrated through appropriate geriatric-focused CME with completion certificates (please be ready to share these certificates and which of the above mentioned geriatric content this includes.) Alternatively, applicants may submit other coursework that they believe should fulfill this requirement for review by the GEDA Board of Governors. The Board of Governors are under no obligation to accept this other coursework.

5. Appropriate education will relate to the eight domains of Geriatric EM as defined by Hogan et al.:

   i. Atypical presentations of disease
   j. Trauma including falls
   k. Cognitive and Behavioral disorders
   l. Emergency intervention modifications
   m. Medication management/polypharmacy
   n. Transitions of care
   o. Effect of comorbid conditions/polymorbidity
   p. End-of-life care

6. Education of nursing personnel about geriatric emergency care of older patients is critically important in a

Geriatric ED. A department should document its nursing educational activity and submit the documentation for consideration. Some examples:

    d. GENE course from Emergency Nurses Association
https://www.ena.org/education/education/GENE/Pages/default.aspx

    e. Emergency Department nursing modules from NICHE http://www.nicheprogram.org/knowledge-center/webinars/archived-webinars/

    f. Locally developed nursing education modules

c) Policies/protocols, guidelines and procedures:

At least **10** of the following items should be part of the ED's model of care (as evidenced by well-established policies and guidelines to ensure implementation and integration of those guidelines into electronic medical records, if possible and applicable). Applicants should provide supporting documentation demonstrating the application of these policies in the majority of eligible GED patients at their institution.

We are looking for protocols that specifically address the emergency care needs of older adults. These protocols or procedures should describe the process through which this care improvement activity takes place for older patients while in the ED and how it is tracked with regards to adherence and care. (i.e., Who does the process, on whom the process is done, and how the process is triggered, etc.)

Sites submitting hospital-wide policies / protocols / procedures should provide detailed explanation for how these are applied to older adults and address ED specific issues.

Examples:

- A hospital screen for cognitive impairment in older ED adults at risk for delirium with the Delirium Triage Screen followed by the Brief Confusion Assessment Method in all ED patients 65+ years of age at triage. This is a geriatric specific protocol done on ED patients.
- A hospital restraints protocol should provide additional information about how restraints are used during ED care of older adults and how this is different from protocols with younger patients;
- Urinary catheter policies should have a component describing how the policy is applied tracked with regards to implementation for older patients in the ED.
- A falls policy describing how patients that presented for a fall or at risk of a fall are screened for falls risk and measures are taken to reduce fall risk: for example: home assessment, physical therapy follow-up, etc. (Please note that if a Falls policy is chosen, it cannot be focused only on preventing in-hospital falls. It should to strive to identify older adults presenting to the ED with falls, as well as demonstrate a process that strives to reduce future risk of falling after ED or hospital discharge.)

Describing Patient Eligibility for GED Services

A patient's eligibility for GED initiatives may vary across intervention type and institution. For example, eligibility may be based on age, screening tool results, or prior ED history. While we will accept a range of definitions of patient eligibility, the applying institution should specify how they are defining eligibility for the purposes of measuring adherence (i.e., the denominator) for each criterion being evaluated.

Table 1. Level 2: GED policies/protocols, guidelines and procedures

1	A standardized delirium screening guideline (examples: DTS; CAM; 4AT, other) with appropriate follow-up
2	A standardized dementia screening process (Ottawa 3DY; Mini Cog; SIS; Short Blessed Test; other)
3	A guideline for standardized assessment of function and functional decline (ISAR; AUA; interRAI Screener; other) with appropriate follow-up

4	A guideline for standardized fall assessment guideline (including mobility assessment, e.g. TUG or other) with appropriate follow-up
5	A guideline for identification of elder abuse with appropriate follow-up
6	A guideline for medication reconciliation in conjunction with a pharmacist
7	A guideline for to minimize the use of potentially inappropriate medications (Beers' list, or other hospital-specific strategy, access to an ED-based pharmacist)
8	A guideline for pain control in elder patients
9	A guideline for accessing palliative care consultation in the ED
10	A guideline for accessing Geriatric Psychiatry consultation in the ED
11	Development and implementation of at least three order sets for common geriatric ED presentations developed with particular attention to geriatric-appropriate medications and dosing and management plans (e.g. delirium, hip fracture, sepsis, stroke, ACS)
12	A guideline to standardize and minimize urinary catheter use
13	A guideline to minimize NPO designation and to promote access to appropriate food and drink
14	A guideline to promote mobility
15	A guideline to guide the use of volunteer engagement
16	A standardized discharge guideline for patients discharged home that addresses age-specific communication needs (large-font, lay person's language, clear follow-up plan, evidence of patient communication)
17	A guideline for PCP notification
18	A guideline to address transitions of care to residential care
19	A guideline to minimize use of physical restraints including use of trained companions/sitters
20	Standardized access to geriatric specific follow-up clinics: comprehensive geriatric assessment clinic, falls clinic, memory clinic, other
21	A guideline for post-discharge follow up (phone, telemedicine, other)
22	Access to transportation services for return to residence
23	A pathway program providing easy access to short- or long-term rehabilitation services, including inpatient
24	Access to an outreach program providing home assessment of function and safety
25	Access to and an active relationship with community paramedicine follow up services
26	An outreach program to residential care homes to enhance quality of care and of ED transfers

d) Quality Improvement

There should be evidence of efforts to ensure effective and appropriate utilization of above policies and guidelines with adherence to the **10** components chosen in "*Policies guidelines and procedures*".

e) Outcomes measures

The ED should track both process and outcomes metrics related to eligible GED patients. These should include demonstration of process and outcome metrics in the majority of eligible GED patients in ***at least 3*** of the following metrics for ***at least 3*** of the policies/ protocols guidelines or procedures chosen in Section c. (please refer to the note on "Describing Patient Eligibility for GED Services" in part c ("Policies/protocols, guidelines and procedures above):

Table 2. Level 2: GED outcomes

1	Percentage of eligible patients who receive the designated intervention(s) above
2	Numbers of patients screening positively for applicable intervention(s)
3	Designation of a referral pathway for positively screened patients
4	Percentage of eligible positively screened patients who are referred as designated
5	Percentage of eligible positively screened patients who complete the referral
6	Outcomes of all completed referrals for positively screened patients
7	Numbers of older adults admitted to the hospital including the primary admitting diagnosis and chief complaint

8	Numbers of older adults discharged to home, SNF, or NH with including the primary ED diagnosis and chief complaint
9	Numbers of older adults with repeat ED visits and the percentage of all elder visits this represents
10	Numbers of older adults with repeat ED admissions and the percentage of all elder visits this represents
11	Number of older adults staying >8 hours in the ED and the percentage of all elder visits this represents

*Future re-accreditation will consider demonstration of implementation of successful QI projects that use these outcome measures

f)   Equipment and supplies

In-department access to four-point walkers, canes, and **_at least 3_** additional pieces of equipment/supplies from the following:

Table 3. Level 2: GED equipment and supplies

1	Non-slip socks
2	Pressure-ulcer reducing mattresses and pillows
3	Blanket warmer
4	Hearing assist devices
5	Bedside commodes
6	Condom catheters
7	Transition stools for each bed

g)   Physical environment

Presence of the following characteristics to the GED physical environment:

Table 4. Level 2: GED physical environment

1	Two chairs per patient bed to promote visitors and the possibility of sitting
2	A large-face analog clock in each GED patient room
3	Easy access to food and drink

Level One:

All of the additional/different requirements to move from Level Two to Level One are marked *****

a) Staffing:

1. Physician
The institution should provide an emergency physician 'champion' or medical director expertise specifically relevant to the provision of emergency care of older people with the following responsibilities:
  a. Geriatric EM educational leader/coordinator for EM providers across multiple disciplines
  b. Oversee GED operations including:
      i.   Implementation and regular assessment of protocol and policy guidelines of geriatric-specific initiatives
      ii. Coordination/guidance of GED staff workflow
      iii. Coordination of interdisciplinary team workflow in the GED
  c. Quality improvement team leader for adherence to geriatric-specific protocols
  d. Oversee outcome measures documentation including process and outcome metrics
  e. Coordinator for maintenance of GED environment (i.e., specific equipment and supplies)
  f. Liaison between hospital leadership and the GED
  g. Quality assurance team leader for geriatric patient case reviews/complaints
  h. Coordinator of GEM research initiatives (*if applicable*)

-EDs that seek accreditation but lack involvement of an emergency physician in the Geriatric ED Medical Director position should appoint co-directors of the geriatric emergency department.   In these cases, one GED co-director would be an emergency physician who can then partner with the other co-director in the role of GED director.

-EDs that seek accreditation but lack any emergency physicians capable of serving as co-Medical Director at minimum must request a special exemption to appoint a non-emergency physician as Geriatric ED Medical Director for no more than three years while an emergency physician is recruited.   Renewal of the exemption is unlikely without remarkable circumstances (e.g., an extremely rural hospital, failure of extensive attempts to recruit, etc.) We ask that this request come from hospital leadership (e.g., Chief Medical Officer or equivalent) to demonstrate their understanding of the issues present and commitment to adhering to the GEDA requirements in time for the first renewal.

2. Nursing
The institution should provide an identified nurse case manager or transitional care nurse or equivalent who should be present in the ED for at least **56** hours/week of clinical coverage. This nurse case manager or social worker shall have responsibility for complex geriatric patient care and responsibility for geriatric patient capacity development/performance improvement within the ED.

3. Interdisciplinary
The institution should ensure availability of an **Inter-disciplinary geriatric assessment team, including the following roles available to the ED.*
  a. Physiotherapy, occupational therapy, social work, medication management

4. Administrative

The institution should ensure that at least one member of the executive/administrative team of the hospital should have, as a part of his/her portfolio, supervision of the Geriatric ED program and be actively committed to enhancing senior-friendly emergency care.

5. **Patient advisor**

The institution should ensure that **A patient advisor or patient council should be appointed and be able to provide at least monthly input on potential for quality improvement.*

b) Education:

7. A physician champion / medical director is required for all levels of Geriatric ED. This physician champion / medical director must demonstrate focused training in geriatric emergency medicine that provides added expertise in the emergency care of older adults and added ability to teach other physicians and advanced practice providers how to improve this care.

   This training requirement must be demonstrated through coursework:
   1) focused on geriatric specific syndromes and concepts (e.g., atypical presentation of disease, changes with age, transitions of care) relevant to emergency medicine,

   2) focused on clinical issues nearly exclusive to geriatric ED patients (e.g., end of life care, dementia, delirium, systems of care for older adults), or

   3) discussing issues common to all ED patients but focused on the unique factors found in older adults (e.g., trauma in older adults, cardiac arrest care for the geriatric patient).

   Training in common emergency medicine conditions (e.g., stroke) that happen to affect older adults does not qualify for this requirement. Qualifying training courses may be in person, web-based (e.g., Geri-EM.com) or equivalent provided through or led by an authoritative resource. *Reading a book or credit for a topic search in Up to Date (or similar) do not qualify for this training requirement unless CME is earned for this activity.*

   - For physician champion / medical directors applying to lead Level 1 Geriatric EDs, 8 hours of education are required for the initial certification and for each renewal.

   These educational requirements may be demonstrated through appropriate geriatric-focused CME with completion certificates (please be ready to share these certificates and which of the above mentioned geriatric content this includes.) Alternatively, applicants may submit other coursework that they believe should fulfill this requirement for review by the GEDA Board of Governors. The Board of Governors are under no obligation to accept this other coursework.

8. Appropriate education will relate to the eight domains of Geriatric EM as defined by Hogan et al.:
   q. Atypical presentations of disease
   r. Trauma including falls
   s. Cognitive and Behavioral disorders
   t. Emergency intervention modifications
   u. Medication management/polypharmacy

     v.   Transitions of care

     w. Effect of comorbid conditions/polymorbidity

     x.   End-of-life care

9. Education of nursing personnel about geriatric emergency care of older patients is critically important in a Geriatric ED. A department should document its nursing educational activity and submit the documentation for consideration. Some examples:

    g. GENE course from Emergency Nurses Association
       https://www.ena.org/education/education/GENE/Pages/default.aspx

    h. Emergency Department nursing modules from NICHE http://www.nicheprogram.org/knowledge-center/webinars/archived-webinars/

    i.   Locally developed nursing education modules

c) Policies/protocols, guidelines and procedures:

At least 20 of the following (*note*: guideline *1), should be part of the ED's model of care (as evidenced by well-established guidelines and with integration of those guidelines into electronic medical records, if applicable). Given the high likelihood of variability across sites, adherence and presence of policies and guidelines will determined primarily by reviewer evaluation during the site visit. In preparation for the site visit, applicants should be prepared to provide supporting documentation of relevant guidelines in the majority of eligible GED patients at their institution.

We are looking for protocols that specifically address the emergency care needs of older adults. These protocols or procedures should describe the process through which this care improvement activity takes place for older patients while in the ED and how it is tracked with regards to adherence and care. (i.e., Who does the process, on whom the process is done, and how the process is triggered, etc.)

Sites submitting hospital-wide policies / protocols / procedures should provide detailed explanation for how these are applied to older adults and address ED specific issues.

Examples:

- A hospital screen for cognitive impairment in older ED adults at risk for delirium with the Delirium Triage Screen followed by the Brief Confusion Assessment Method in all ED patients 65+ years of age at triage. This is a geriatric specific protocol done on ED patients.
- A hospital restraints protocol should provide additional information about how restraints are used during ED care of older adults and how this is different from protocols with younger patients;
- Urinary catheter policies should have a component describing how the policy is applied tracked with regards to implementation for older patients in the ED.
- A falls policy describing how patients that presented for a fall or at risk of a fall are screened for falls risk and measures are taken to reduce fall risk: for example: home assessment, physical therapy follow-up, etc. (Please note that if a Falls policy is chosen, it cannot be focused only on preventing in-hospital falls. It should to strive to identify older adults presenting to the ED with falls, as well as demonstrate a process that strives to reduce future risk of falling after ED or hospital discharge.)

Describing Patient Eligibility for GED Services

A patient's eligibility for GED initiatives may vary across intervention type and institution. For example, eligibility may be based on age, screening tool results, or prior ED history. While we will accept a range of

definitions of patient eligibility, the applying institution should specify how they are defining eligibility for the purposes of measuring adherence (i.e., the denominator) for each criterion being evaluated.

Table 1a. Level 1: GED policies/protocols, guidelines, and procedures

*1	A guideline to define criteria for access to Geriatric Emergency Department Care from ED triage
2	A standardized delirium screening guideline (examples: DTS; CAM; 4AT, other) with appropriate follow-up
3	A standardized dementia screening process (Ottawa 3DY; Mini Cog; SIS; Short Blessed Test; other)
4	A guideline for standardized assessment of function and functional decline (ISAR; AUA; interRAI Screener; other) with appropriate follow-up
5	A guideline for standardized fall assessment guideline (including mobility assessment, e.g. TUG or other) with appropriate follow-up
6	A guideline for identification of elder abuse with appropriate follow-up
7	A guideline for medication reconciliation in conjunction with a pharmacist
8	A guideline for to minimize the use of potentially inappropriate medications (Beers' list, or other hospital-specific strategy, access to an ED-based pharmacist)
9	A guideline for pain control in elder patients
10	A guideline for accessing palliative care consultation in the ED
11	A guideline for accessing Geriatric Psychiatry consultation in the ED
12	Development and implementation of at least three order sets for common geriatric ED presentations developed with particular attention to geriatric-appropriate medications and dosing and management plans (e.g. delirium, hip fracture, sepsis, stroke, ACS)
13	A guideline to standardize and minimize urinary catheter use
14	A guideline to minimize NPO designation and to promote access to appropriate food and drink;
15	A guideline to promote mobility
16	A guideline to guide the use of volunteer engagement
17	A standardized discharge guideline for patients discharged home that addresses age-specific communication needs (large-font, lay person's language, clear follow-up plan, evidence of patient communication)
18	A guideline for PCP notification
19	A guideline to address transitions of care to residential care
20	A guideline to minimize use of physical restraints including use of trained companions/sitters
21	Standardized access to geriatric specific follow-up clinics: comprehensive geriatric assessment clinic, falls clinic, memory clinic, other
22	A guideline for post-discharge follow up (phone, telemedicine, other)
23	Access to transportation services for return to residence
24	A pathway program providing easy access to short- or long-term rehabilitation services, including inpatient
25	Access to an outreach program providing home assessment of function and safety
26	Access to and an active relationship with community paramedicine follow up services
27	An outreach program to residential care homes to enhance quality of care and of ED transfers

*New criteria

d) Quality Improvement

There should be evidence of efforts to ensure effective and appropriate utilization of above policies and guidelines to the 20 components chosen in "*Policies guidelines and procedures*".

e) Outcomes measures

The ED should track both process and outcomes metrics related to eligible GED patients. These should include demonstration of process and outcome metrics in the majority of eligible GED patients in *__at least 5__* of the following metrics for *__at least 5__* of the "policies/ protocols, guidelines or procedures" chosen in Section c.

(please refer to the note on "Describing Patient Eligibility for GED Services" in part c ("Policies/protocols,

guidelines and procedures" above):

Table 2a. Level 1: GED outcomes

1	Percentage of eligible patients who receive the designated intervention(s) above
2	Numbers of patients screening positively for applicable intervention(s)
3	Designation of a referral pathway for positively screened patients
4	Percentage of eligible positively screened patients who are referred as designated
5	Percentage of eligible positively screened patients who complete the referral
6	Outcomes of all completed referrals for positively screened patients
7	Numbers of older adults admitted to the hospital including the primary admitting diagnosis and chief complaint
8	Numbers of older adults discharged to home, SNF, or NH with including the primary ED diagnosis and chief complaint
9	Numbers of older adults with repeat ED visits and the percentage of all elder visits this represents
10	Numbers of older adults with repeat ED admissions and the percentage of all elder visits this represents
11	Number of older adults staying >8 hours in the ED and the percentage of all elder visits this represents

Future re-accreditation will consider demonstration of implementation of successful QI projects that use these outcome measures

f) Equipment and Supplies

Easy in-department access to four-point walkers, canes, and the following list of equipment/supplies (*note*:*1 and *2)

Table 3a. Level 1: GED equipment and supplies

*1	*Low beds*
*2	*Reclining arm chairs*
3	Non-slip socks
4	Pressure-ulcer reducing mattresses and pillows
5	Blanket warmer
6	Hearing assist devices
7	Bedside commodes
8	Condom catheters

New criteria

g) Physical environment

Ideally a separate physically enclosed space for the Geriatric ED is identified. If that is not possible a space that prioritizes the best qualities of senior-friendly environmental design with attention to the following (*note:* * indicates new criteria for Level 1 accreditation).

Table 4a. Level 1: GED physical environment

*1	*Ample seating for visitors and family (at least 2/room)*
2	A large-face analog clock in each patient room
3	Easy access to food and drink
*4	*Enhanced lighting (e.g. natural light, artificial skylight or window, etc.*
*5	*Efforts at noise reduction (separate enclosed rooms*
*6	*Non-slip floors*
*7	*Adequate hand rails*
*8	*High-quality signage and way-finding*
*9	*Wheel-chair accessible toilets*
*10	*Availability of raised toilet seats*

New criteria

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Table 1. Criteria by accreditation level

CRITERIA	LEVEL 3	LEVEL 2	LEVEL 1
a) Staffing			
1 MD/DO with evidence of focused education for geriatric EM	X	X	X
1 RN with evidence of focused education for geriatric EM	X	X	X
Physician champion/Medical director		X	X
Nurse case manager/transitional care nurse present > 56 hrs/week		X	X
Interdisciplinary geriatric assessment team includes > 2 roles		X	
Interdisciplinary geriatric assessment team includes > 4 roles			X
> 1 executive/administrative sponsor supervising GED program		X	X
Patient advisor/patient council			X
b) Education			
Staff physician education (hours) related to 8 domains of GEM	4	6	8
Nursing education in geriatric emergency care	X	X	X
c) Policies/protocols guidelines & procedures			
Evidence of a geriatric emergency care initiative	X	X	X
> 10 items as part of the ED model of care for patients >65ysr		X	
> 20 items as part of the ED model of care for patients >65yrs			X
d) Quality improvement			
Adherence to 10 policies/protocols, guidelines & procedures		X	
Adherence to 20 policies/protocols, guidelines & procedures			X
e) Outcome measures			
Track > 3 process and outcome metrics for eligible patients		X	
Track > 5 process and outcome metrics for eligible patients			X
f) Equipment and supplies			
Access to mobility aids (canes, walkers)	X	X	X
Access to > 5 supplies (including mobility aids)		X	
Access to the following 10 supplies			X
g) Physical environment			
Easy access to food/drink	X	X	X
2 chairs per patient bed		X	X
Large analog clock		X	X
Enhanced lighting			X
Efforts at noise reduction			X
Non-slip floors			X
Adequate hand rails			X
High quality signage and way-finding			X
Wheel-chair accessible toilets			X
Availability of raised toilet seats			X

U.S.News & WORLD REPORT   **HEALTH**

What Is a Geriatric Emergency Department?

Older adults may receive care more attuned to their needs in specialized hospital ERs.

By **Lisa Esposito**, **Staff Writer**   Sept. 28, 2018

NOBODY LOVES AN emergency room visit, least of all older patients. Everything about the ER experience can be more challenging for older adults. Time in the waiting room is harder to tolerate: You're cold and they've run out of blankets. If you're confused or disoriented, the harsh lighting, bursts of yelling and constant noise make it worse. If you're unsteady on your feet and need the bathroom, navigating cramped ER quarters is difficult. If your joints are painful or your skin is thin and delicate, "resting" on a cot or stretcher is tough. If you're alone, without a friend or family member, it's frightening.

When older patients are admitted to the emergency department, vague-sounding symptoms ("I feel dizzy." Or "I just don't feel right.") may actually be more serious than for someone younger. Common conditions like urinary tract infections can present themselves quite differently depending on age, and treatments may vary. For these reasons and more, some emergency departments are making changes to tailor their care and better meet the needs of older adults.

Geriatric emergency departments incorporate specially trained staff, assess older patients in a more comprehensive way and take steps to make the experience more comfortable and less intimidating. However, not all geriatric EDs are the same. Below, clinical experts spell out basic criteria for geriatric emergency departments and describe what patients and families should look for and expect.

[See: **12 Medical Emergencies You Need to Address Right Away**.]

Older Patients: Growing Group

People ages 65 and older are the most likely to visit U.S. emergency departments. According to an Agency for Healthcare Research and Quality report on hospital ED

trends, rates for older patients were the highest among all age groups every year covered from 2006 through 2015.
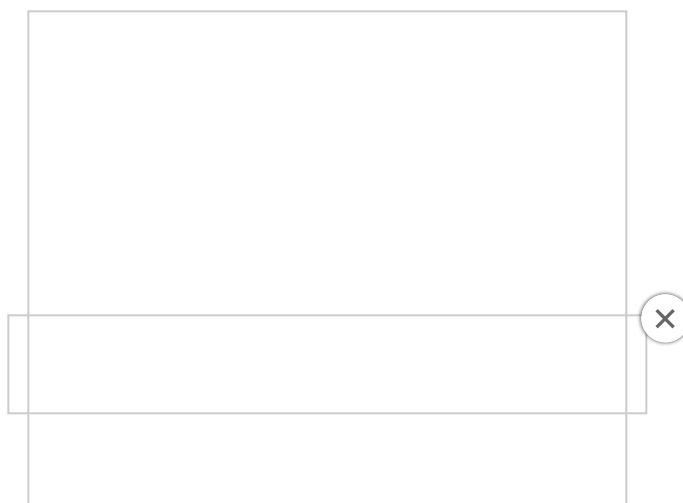
Over time, EDs will increasingly serve older patients. "The population is aging," says Dr. Denise Nassisi, an associate professor in the emergency medicine department at the Icahn School of Medicine and director of the geriatric emergency department at Mount Sinai Hospital in New York City. "We are doing a better job of taking care of patients, and people are living longer so it's not uncommon to see multiple patients on a given day that are in their 90s or that even have reached 100."

Complexity of care rises with age. Older patients are more likely to have several conditions such as heart disorders and chronic obstructive pulmonary disease, or COPD. Many patients who are on multiple prescribed medications might benefit most from having their drug regimens trimmed. Instead, they may receive new drugs in the ER that can cause side effects and possibly interact with drugs they're already taking.

In the past, the tendency in emergency medicine was to admit older patients to the hospital in an abundance of caution, Nassisi says. Today, she says, "We're really trying to stay away from that for a number of reasons." First of all, she points out, patients don't want to be in the hospital. "Actually, for older patients, coming to the hospital is risky," she says. Older adults may not see or hear as well and are more likely to develop delirium (an acute state of confusion), have a drug reaction or lose some of their functional ability. They're more vulnerable to infections and other hospital complications.

[See: 11 Things Seniors Should Look for in a Health Provider.]
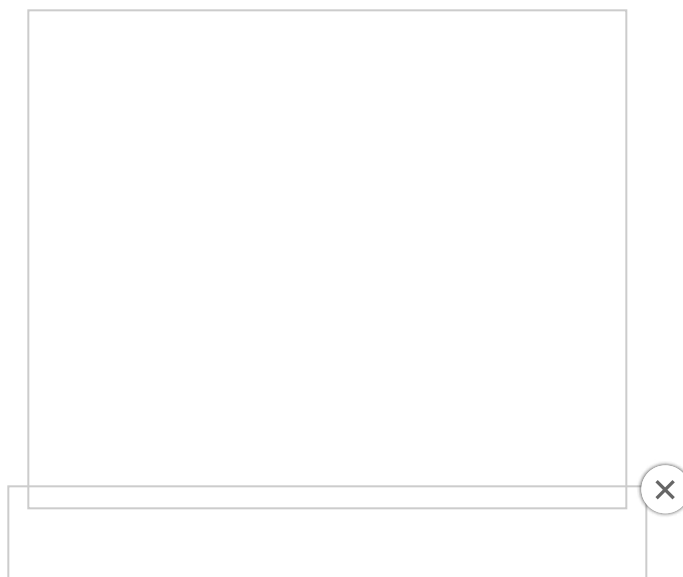
Geriatric ED Difference

"Over 60 percent of hospital admissions for patients over the age of 65 come through the emergency department," says Dr. Kevin Biese, an emergency medicine physician with University of North Carolina Hospitals who has a focus in geriatrics.

In 2014, the American College of Emergency Physicians, American Geriatrics Society, Emergency Nurses Association and the Society for Academic Emergency Medicine created geriatric emergency department guidelines.

These are four basic components that set apart geriatric emergency departments:

- **Structure.** This feature will be most obvious to patients and family members entering an emergency department. "It should be quieter," Biese says. "You shouldn't be in the hallway. You should be in a more comfortable bed or cot, not a thin cot that's going to cause skin breakdown in older adults. The lights should dim at night. There should be some nonstick flooring to minimize falls within the department."

- **Screening processes.** A variety of screening tools can quickly uncover physical or mental health risks that are more common in older adults. When ER clinicians screen older patients to determine their frailty, risks of falls or delirium, or check prescriptions against criteria for potentially inappropriate medication use in older adults, it's a chance to safeguard their health in the moment and later at home.

- **Staff education.** Nurses and doctors receive additional education in geriatrics, above and beyond what they learned about caring for older adults during emergency medical training. "We need to know something about their physiology, polypharmacy [taking multiple medications] and the risks they face," Biese says.

- **Community connections.** "The geriatrics emergency department isn't just the front door of the hospital," Biese says. "It's the front porch of the health care system." You don't necessarily have to stay in the house when you drop in on a neighbor and chat on the porch, he says, and an emergency department visit needn't always lead to hospitalization for older patients. "Rather, you might have an opportunity to connect with your community, figure out what your needs are and see whether those can be met at your house," he says. Team members can reach out to the local Agency on Aging, services like Meals on Wheels, physical therapy providers and home health agencies.

Volunteers provide an extra human touch to patients when they're feeling most isolated and vulnerable. At Mount Sinai, through a "robust" volunteer program called Care and Respect for Elders, or CARE, specially trained volunteers particularly try to focus on anyone who comes in unaccompanied, Nassisi says: "We found a lot of our older patients are coming in by themselves." Volunteers provide one-on-one comfort care, such as offering pillows, reading glasses, generic hearing amplifiers and other amenities.

[See: **10 Interesting Ways to Volunteer at a Hospital**.]

Need Is There

Geriatric emergency departments are needed to fill substantial gaps in care for older adults, says Dr. Christopher Carpenter, an associate professor of emergency medicine with Washington University School of Medicine in St. Louis.

"Unprecedented growth in aging demographics – with 10,000 baby boomers turning 65 every day – yet a health care system that is not adapting to address unique geriatric needs" are contributing factors to these gaps, according to Carpenter, who is also deputy editor in chief of Academic Emergency Medicine and associate editor of the Journal of the American Geriatrics Society.
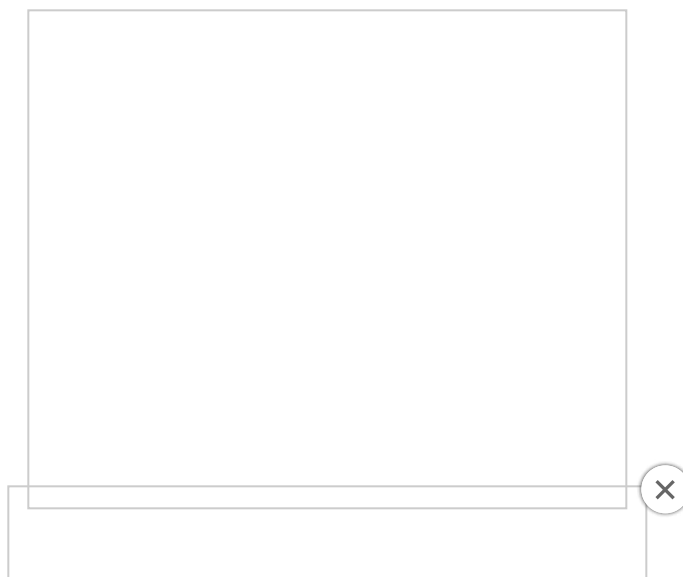
Too few geriatricians, a shrinking primary care safety net, inadequate exposure to geriatric health issues in medical schools and a lack of related guidelines for family and internal medicine practitioners are part of the problem, Carpenter says.

Carpenter points to "numerous examples of suboptimal emergency care," including emergency department clinicians failing to diagnose dementia and delirium in a significant number of patients, and lack of adherence to guidelines for fall prevention.

The decision by hospitals to pursue accreditation and meet higher standards may serve "as a motivator and facilitator of local geriatric emergency medicine quality-improvement efforts," Carpenter suggests.

Accreditation Option

"There are 140 self-declared geriatric emergency departments across the country as of about six months ago," Biese says. "However, I have visited some of them and there's a wide variation of quality."

In May 2018, ACEP, with support from the Gary and Mary West Health Institute and the John A. Hartford Foundation, launched an accreditation program for geriatric emergency departments that have met certain quality standards. Biese is chair of the project.

Three levels of accreditation are offered, with increased recognition dependent on multiple factors including policies, outcomes and staff. One quality indicator is the availability of a geriatric assessment team including physical therapists, occupational therapists and social workers, for instance, or having a pharmacy within the ED.

Mount Sinai Hospital, St. Joseph's University Medical Center in New Jersey and UC San Diego Health are among participating hospitals. Soon, Biese says, there will be 20 such accredited geriatric EDs in 10 states across the country, with many other hospitals expressing interest.
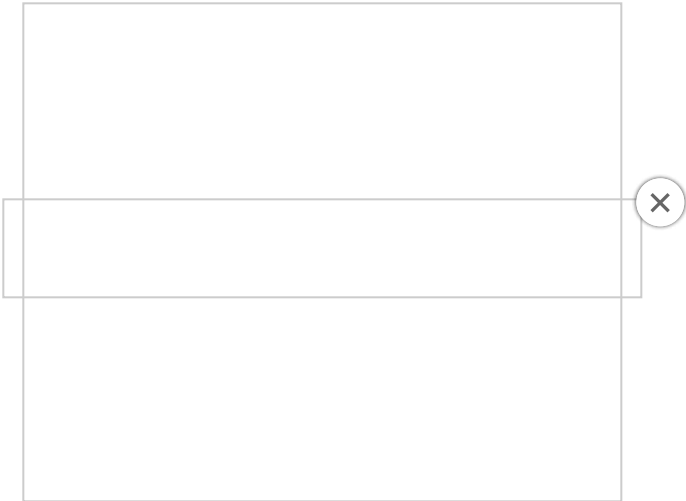
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All-Hazard Health Services Capacity Management Plan
2019-2020

Introduction

The initial Health Services Capacity Plan was developed in 1997 with the goal of providing a framework for community partner collaboration to manage a severe influenza season. The resulting Health Services Capacity Task Force (HSCTF) has become a critical part of the San Diego region's emergency management system. The new Health Services Capacity Management Plan (Capacity Plan) has expanded to an all-hazard management tool for any acute situation in which medical care is strained, or medical needs exceed the health system's resources at a point in time. Resources extend across the delivery spectrum – from prehospital to hospital to outpatient and rehabilitation to community care. The Capacity Plan is built to provide flexibility to address regional care delivery strain regardless of the cause. Alongside the implementation of the County of San Diego Local Emergency Medical Services Information System (CoSD LEMSIS), the 2019 *All-Hazard Health Services Capacity Management Plan* has undergone further revisions following a larger restructuring.

The 2019 *All-Hazard Health Services Capacity Management Plan* (commonly known as the *Capacity Plan*) maintains the five-level design of prior versions while redesigning the activation criteria, linked actions, and the basis for deactivation at each level. The Capacity Plan mirrors the Federal Emergency Management Agency and the County of San Diego Emergency Operations Center activation levels, aligning with modern emergency management terminology.

The Capacity Plan is designed to provide clear and measurable guidance for level escalation and de-escalation, along with linked actions for each level. Under this new construct, the first two levels represent "Baseline" and "Enhanced Surveillance." The pre-activation information-gathering activities that take place at these levels proactively detect changes and provide early recognition of health system strain. The next three levels are implemented when systemwide or sector-specific resources are exceeded, thereby requiring targeted actions to maintain health services for all San Diego County residents and visitors.
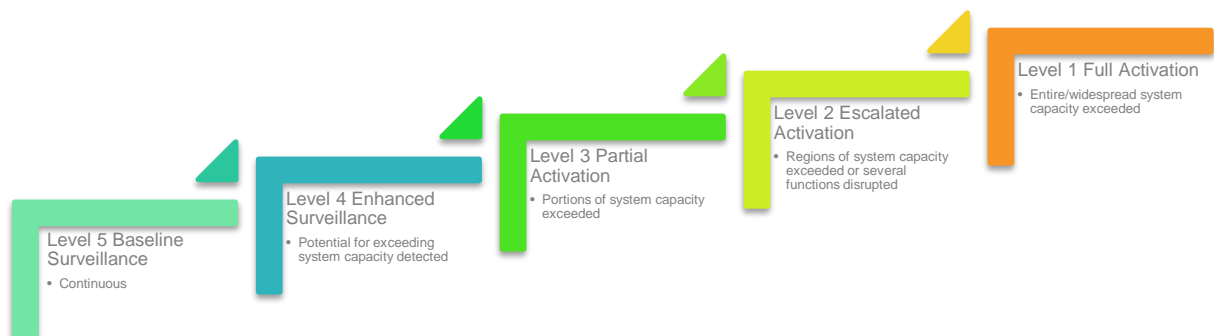
Figure 1: All-Hazard Health Service Capacity Management Plan Levels

Policy Statement

The County of San Diego Health and Human Services Agency's Chief Medical Officer (CMO), or designee, shall establish a Health Services Capacity Task Force consisting of healthcare partners. This task force is responsible for reviewing, endorsing, and implementing the *All-Hazard Health Services Capacity Management Plan* each year in the early fall. The CMO, or designee, shall appoint a subgroup of the HSCTF to serve as an advisory Operational Core Group (see *Appendix A: HSCTF Stakeholder Team Elements*).

Goals

The purpose of the Capacity Plan is to optimize systems that protect and preserve the health and safety of all San Diego County residents and visitors before, during, and after an acute situation affecting the community. With earlier detection of health system strains, the Health Services Capacity Task Force can manage events more efficiently and effectively.

The goals of the Capacity Plan are to:

- Ensure optimal patient and population medical and health outcomes;
- Determine the most appropriate healthcare settings for patient care;
- Increase capacity/capability to meet the anticipated increased demand from an event – regardless of the cause – that requires health system surge;
- Support continuity of business operations countywide for prehospital agencies and healthcare facilities; and
- Provide early coordination of regional resources during periods of system capacity stress.

To meet these overarching goals, the Capacity Plan's strategies are organized around the 3S Concept of Surge Capacity: *Stuff*, *Staff*, and *Structure*.

- **Stuff**: Ensure adequate supplies and equipment
- **Staff**: Support staffing levels and/or expand the workforce to aid with event management (may include absolute numbers of staff and those with specialized types of expertise such as infectious disease specialists, radiation experts, or neurosurgeons)
- **Structure**: Two components make up *Structure-*
  - Physical Structure: Address patient care areas, including expanding and/or repurposing space to care for current and/or additional patients; using alternate care sites; and conserving prehospital resources to meet demand; and
  - Management Structure: Use of an incident management or command system to ensure operations are adapted/maintained as needed to meet the population and patient care needs resulting from an event that strains system capacity.

Framework Overview

Level 5 Baseline Surveillance is the continuous system monitoring performed by County staff. The surveillance process includes ongoing analysis with weekly reporting. Surveillance, report elements, and reporting frequency are modifiable at the discretion of the County of San Diego Health and Human Services Agency's Emergency Medical Services (EMS) Medical Director, regardless of plan activation level.

Level 4 Enhanced Surveillance is triggered by a change in baseline surveillance data analysis and is event-specific. Enhanced Surveillance is initiated to identify and characterize the degree of system stress and potential for ongoing effects. This surveillance informs the activation of/communication to appropriate personnel and facilities. Enhanced Surveillance data shall be distributed to the Operational Core Group, an intersectoral team composed of health system representatives (see *Appendix A*). In addition, County of San Diego staff may issue community communications based upon a possible or burgeoning health situation in the region.

Level 3 Partial Activation is linked to the first significant system actions. These may include public messaging; anticipating the need for regulatory relief, waivers, or other special exceptions to baseline authorities; providing situational reports to stakeholder organizations, such as the California Department of Public Health (CDPH); and communicating the need to augment operational staffing or other resources to manage the event.

Level 2 Escalated Activation provides additional tools to the county's health services providers to address sustained system stress. Selected County EMS policy and protocol requirements may be temporarily waived to provide relief to emergency medical services provider agencies, emergency departments, and hospitals. This may include: suspending the EMS medical home standard; implementing changes to triage at the level of dispatch; managing certain patients with Basic Life Support (BLS) providers who would normally be managed by paramedics; and other non-standard response methods. The County may also engage hospital, outpatient, and health plan resources to identify and implement measures to increase the health system's patient care capacity.

Level 1 Full Activation is intended for use only during catastrophic events that result in major and sustained infrastructure disruptions. This activation level would result in the deployment of state and federal resources such as the National Disaster Medical System, Strategic National Stockpile, and Medical Reserve Corps. In addition, the need for alternate care sites and crisis care would be anticipated in this scarce resource environment.

Level 5 Baseline Surveillance

Baseline surveillance consists of the routine County Medical Care Services Division (MCSD) and Public Health Services (PHS) systems monitoring. This monitoring draws upon several existing surveillance processes and data streams, providing emergency system and epidemiologic analysis. Each metric is designed to place minimal non-routine demand on partner organizations while creating a picture of the 3S Elements of Surge Capacity.

Weekly analytic summaries are provided to designated County staff, represented as the Internal Core Group (see *Appendix A*: *HSCTF Stakeholder Team Elements*). An example of baseline surveillance data, termed Transfer of Care (TOC), tracks the time needed to transfer care of patients from paramedics to ED staff in a hospital emergency department. TOC data is monitored every business day under normal operations. See *Appendix E: Baseline Monitoring Reporting Details* for further details on the report elements, sources, and recipients.

Level 4 Enhanced Surveillance

Enhanced Surveillance is initiated at the discretion of the CMO or the EMS Medical Director, as the CMO's designee. Data are gathered, analyzed, summarized, and reported to County leaders and the Operational Core Group, as appropriate. The increased analysis frequency and intensity enable County decision-makers and partner agencies to analyze the same standardized information, helping ensure coordinated and focused event management.

The EMS Medical Director may modify surveillance report elements and reporting frequency, regardless of the Capacity Plan level. Enhanced Surveillance products shall be reported during County workdays unless a need to increase reporting frequency is identified. During Enhanced Surveillance, County staff shall create externally-accessible web-based dashboards, as authorized.[1] Metrics demonstrating variation from expected levels shall be color-coded, with callouts and relevant context provided. See *Appendix F: Enhanced Surveillance Report* for details on the report elements, sources, periodicity, and recipients.

> *Enhanced Surveillance allows County leadership to monitor Health System stress through specific trended metrics for a set period, designed to detect a developing situation before it becomes a crisis.*

The standard Enhanced Surveillance operational period is seven days after the last triggering event was detected.[2] The EMS Medical Director may extend or reduce the Enhanced Surveillance reporting period based on the event, including for the following reasons:

- MCSD and PHS leadership clinical impression;
- Operational Core Group recommendation;
- Situational elements, e.g., extended weather forecasts or operational updates; and/or
- Incubation periods for infectious disease events.

These operational extensions or reductions may include or exclude weekend and holiday reporting.

Actions may also be initiated through the County Emergency Medical Services/Public Health Preparedness and Response Duty Officer (EMS-PHPR DO) cadre, under the direction of the CMO, the EMS Medical Director, or their designee.

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[1] Dashboards shall be password-protected, near-real time, and presented in easily interpreted formats.
[2] The EMS Medical Director continuously monitors EMS metrics. Activations for planned events may have a shorter duration than the seven-day term, as determined by the EMS Medical Director, in consultation with partner/jurisdictional agencies. For details, please see *Appendix H: Trigger Metric Statistical Details*.

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Level 4 Enhanced Surveillance Initiation

The CMO, or designee, has the authority to initiate Enhanced Surveillance.

Enhanced Surveillance initiation shall be informed by:

- EMS/PHS metric triggers (see *Table 1: Level 4 Enhanced Surveillance Initiation Metrics*)
- Sentinel or significant local events, including anticipated (e.g., heat emergency), planned (e.g., mass gathering), and unplanned (e.g., earthquake)
- Recommendation of the Public Health Officer (PHO) or EMS Medical Director

Table 1: Level 4 Enhanced Surveillance Initiation Metrics

Surveillance Indicator	Trigger to enter Enhanced Surveillance	
Transfer of Care (TOC) Time	Above range for 2 out of 3 consecutive days[3]	Enhanced Surveillance
Prehospital Patient Volume	Above range for 2 out of 3 consecutive days[4]	
Influenza/Influenza-Like Illness (ILI) and Emergency Department Surveillance during Influenza Season[5]	Influenza Activity Level 6 with ED ILI at 3% for 2 weeks in a row[6]	
Influenza/ILI and Emergency Department Surveillance outside Influenza Season	ED-respiratory complaints at 12% or higher for 2 weeks in a row[7]	

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[3] Defined as 1.5 standard deviations above baseline mean for two out of 3 consecutive days.

[4] Defined as total number of provider impressions above 2 standard deviations for 2 out of 3 consecutive days.

[5] Influenza Season is defined as the duration the *Health Officer Order for Influenza Vaccination Program or Masking of Healthcare Personnel during Annual Influenza Season* is in effect, usually October to April.

[6] Defined as 2 weeks in which the percent of ED influenza cases has exceeded 4 standard deviations above the mean combined with 3% of ED volume with ILI symptoms. This indicator will be used during the timeframe that the *Health Officer Order for Influenza Vaccination Program or Masking of Healthcare Personnel during Annual Influenza Season* is in effect, usually October to April.

[7] Outside of influenza season, this trigger is defined as 12% of all ED cases with respiratory complaints in the preceding two weeks. This alternate trigger is designed to recognize infectious disease or bioterrorism activity outside of the traditional influenza season and will only be used while the *Health Officer Order for Influenza Vaccination Program or Masking of Healthcare Personnel during Annual Influenza Season* is not in effect.

In addition to Baseline Surveillance data, Enhanced Surveillance may also include other monitoring options, such as:

- Solicit situation reports from fire, EMS, hospital, and/or other health system organization administrators:
    - Staffing shortages/unable to report to work (i.e., infrastructure damage inhibiting transportation)
    - Sick calls (compared to expected sick call rate for the organization)
    - Other sector-specific reports as situationally appropriate
- Monitor, track, and report:
    - Provider impression trends
    - Bypass hour trends (both countywide and by County-defined regions)
    - TOC/Public Safety Answering Point (PSAP) metric trends (both countywide and by County-defined regions)[8]
    - Emergency department boarding trends
    - Relevant syndromic, environmental, or situational updates
    - Information published in the County of San Diego Influenza Watch or other syndromic reports[9]

Actions that may be taken during a Level 4 Enhanced Surveillance period:
County of San Diego:
- Activate Operational Core Group upon the CMO's direction
- Issue annual influenza-season targeted public messaging pending confirmation of influenza activity in the community (e.g., wash your hands, obtain vaccinations)
- Prepare and/or provide public messaging, as appropriate to the situation
- Alert clinics to develop clinical criteria for triaging patients to the appropriate level of care
    - This activity may include telephonic visits with prophylactic and/or therapeutic pharmaceutical prescriptions as the situation dictates
- Broadly distribute communications including, but not limited to, PHO orders, relevant best practices, and public health and preparedness response advisements. Best practices may include initiating workforce respirator fit tests, providing personal protective equipment recommendations, confirming or updating vaccination status, and revising cleaning/decontamination procedures
- The CMO, PHO, and EMS Medical Director coordinate communications for specific patient screening criteria, as appropriate to the situation (e.g., travel history, exposure management)

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[8] PSAP data are pending LEMSIS integration. County-defined regions are geographically grouped – north, central, east, and south.
[9] For more information regarding Influenza Watch, please see https://www.sandiegocounty.gov/hhsa/programs/phs/community_epidemiology/dc/influenza.html.

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- The CMO, PHO, and EMS Medical Director may consider California Health Alert Network (CAHAN) and/or Medical Health Operational Area Coordination (MHOAC) report distribution
- The EMS Medical Director may direct County EMS-PHPR Duty Officers to:
    - Initiate LEMSIS hospital status reporting platform alerts requesting EDs to provide relevant information (e.g., surge plan activations, space conversions)[10]
    - Contact CDPH Licensing and Certification Program District Office, County PHS, or other partners to provide situational awareness updates or to call for expedited request processing for County partners

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[10] The LEMSIS hospital status reporting platform is used to notify HHSA that a hospital has requested a Department of Health and Human Services §1135/Program Flexibility waiver. Hospitals will also be asked to record when internal surge plans are implemented.

Level 3 Partial Activation

Level 3 Partial Activation provides tools for health services organizations to address a surge in patient demand by improving coordination, messaging, and methods while ensuring high-quality care. These tactics allow operational elements to receive updated information, enabling partner organizations to prepare, mitigate, and manage surge situations in an all-hazard environment.

> *Level 3 Partial Activation is designed to allow health services partners to collaboratively address demands exceeding portions of health system capacity.*

Level 3 Partial Activation actions are focused on the 3S Surge Capacity framework:

- **Stuff**: Monitoring and preparing adequate supplies and equipment
- **Staff**: Augment numbers and staff with relevant skills; support and prepare staff for surge situation
- **Structure**: Engage system partners, evaluate temporary space conversions, activate Incident Command Systems (including Hospital Incident Command Systems [HICS] at hospitals)

Level 3 Partial Activation escalation is a collaborative process among the CMO, PHO, EMS Medical Director, and the Operational Core Group. The final activation authority is the CMO, or designee. The indicator metrics inform this decision. Unless otherwise directed by the CMO, when Level 3 is activated, it is maintained for seven days after the last recorded Level 3 indicator threshold was exceeded.[11] When Level 3 is deactivated, a reversion to Enhanced Surveillance will occur for seven days.

The CMO, or designee, has the authority to initiate Level 3 Partial Activation. Initiation of Level 3 Partial Activation may be informed by:

- PHO or EMS Medical Director or designee's recommendation
- Operational Core Group recommendation
- EMS/PHS metrics exceeding thresholds (see *Table 2: Level 3 Partial Activation Metrics)*
- Regional events with significant impacts on the county's health system, including but not limited to:
  - o Wildfire with an immediate threat to a hospital causing evacuation
  - o Anticipated labor actions affecting 3 or more hospitals

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[11] The EMS Medical Director continuously monitors all EMS metrics. Activations may have a shorter or longer duration than the seven-day term, as determined by the EMS Medical Director, in consultation with partner/jurisdictional agencies.

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Table 2: Level 3 Partial Activation Initiation Metrics

Baseline Surveillance Indicator	Trigger to Activate Level 3	
Transfer of Care Time	Above range 4 days in a 7-day period[12] -OR- Considerably above range 2 days in a 3-day period[13]	Activate Level 3 Actions
Emergency Department Bypass	6 or more hospitals reporting 8 or more bypass hours in a single day, 2 days in a row[14]	
Prehospital Provider Impressions	Four symptom categories substantially above range for 4 days in a 7-day period	
Influenza/ILI and Emergency Department Surveillance	Influenza Activity Level 8 with ED ILI 5% for 2 weeks in a row[15]	
Emergency Department Boarding	Supplement to other indicators[16]	
Prehospital Patient Volume		

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[12] Defined as 4 days above 1.5 standard deviations in a 7-day period.
[13] Defined as 2 days above 2 standard deviations in a 3-day period.
[14] The ED Bypass metric is calculated as 6 or more hospitals on ED bypass for 8 or more hours over 2 consecutive days.
[15] Defined as greater than 6 standard deviations above the mean combined with ED ILI cases making up at least 5% of ED volume over the prior two weeks.
[16] These triggers will be developed in the future as EMS data become more robust and baselines more statistically stable

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Level 3 Partial Activation De-escalation:

The duration of activations may vary from the seven-day term, as determined by the CMO or designee, the EMS Medical Director, in consultation with partner/jurisdictional agencies. The EMS Medical Director will continuously monitor indicator metrics.

Deactivation from Level 3 is a collaborative process among the CMO, PHO, EMS Medical Director, and the Operational Core Group. The final deactivation decision-maker is the CMO, or designee.

De-activation from Level 3 may be informed by:

- EMS/PHS metrics triggers
- Recommendation of the Operational Core Group
- CMO/PHO/EMS Medical Director or designee's clinical impression

Actions to be taken during a Level 3 Partial Activation period:

County of San Diego:

County staff implements enhanced surveillance and reporting throughout the Level 3 activation period.

- EMS Epidemiology shall issue regular reports to the Operational Group (see *Appendix A*: *HSCTF Stakeholder Team Elements* for member list)
- Alerts may be issued in the LEMSIS hospital status reporting platform-tracked data, as appropriate:
    - Daily bed counts
    - Daily ED boarding
    - Daily ventilator, critical care supplies, personal protective equipment (PPE) stock, and other event-dependent specific supply levels
- EMS Medical Director may:
    - Implement twice-daily hospital status reporting platform counts
    - Contact California Emergency Medical Services Authority, CDPH, CDPH Licensing and Certifications staff, and other partners to provide situational awareness updates
    - Engage Operational Group for regular meetings
    - Coordinate with CDPH and County medical leadership to develop patient screening criteria
    - Coordinate with PHS/MCSD leadership for public messaging distribution
    - Mandate EMS staff wear event-specific PPE
    - Prepare medical guidance documents should situation escalate (e.g., screening tools, criteria for non-transport, alternate transport modalities)[17]

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[17] If County EMS waives any standard operating procedure or issues a policy adjustment during a Capacity Plan activation, this waiver/adjustment shall be time-limited and include an expiration or need for reauthorization date.

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- o Develop/adopt patient screening tools, situation updates, CDC/CDPH directives and other authoritative guidance documents, and/or best practice decontamination procedures
- County Health and Human Services Agency (HHSA) Public Information Officer (PIO) and County communications office, partner agencies, medical groups, and health plans may issue public communications. These messages will be distributed through social media, traditional media, and other information systems. The message may include a tone of urgency, instructions on the proper use of resources, or other critical updates and recommendations.
- County EMS and PHS shall:
  - o Initiate requests for regulatory relief, waivers, or other special exceptions to baseline County authorities, in consultation with County counsel, as indicated
  - o Ensure County logistic support is deployment-ready
  - o Consider activating backup duty officer to assist with monitoring hospital status reporting platform, PSAPs and/or other communications/system portals
  - o Establish communications with local CDPH office to provide situational awareness
  - o Consider issuing supplementary radios to Base Hospitals (BH) to increase Mobile Intensive Care Nurse (MICN) medical control availability
  - o Distribute relevant guidance directly to providers through LEMSIS/distribution groups
    - This guidance may include patient screening tools, situation updates, CDC/CDPH directives, and other authoritative guidance documents, and/or best practice decontamination procedures
  - o Consider CAHAN development/distribution and/or MHOAC reporting
  - o Open County EOCs, if not yet done[18]
  - o Engage Chief Pharmacy Officer for medication tracking/regional pharmaceutical availability status
  - o Establish dialogue with military and Veterans Affairs personnel for resource access assessment for non-military patients/supplies/support

Fire/EMS Agencies:

Fire and EMS agencies may consider:
- Staffing additional units or altering shift deployment
  - o This may include all county Advanced Life Support (ALS), First Responder (FR), and BLS agencies
- Encouraging dispatch centers to augment numbers of call-taking staff

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[18] County EOCs include the Health and Human Services Agency Department Operations Center (DOC) and/or the Medical Operations Center.

- Instituting medical dispatch severe respiratory illness or other event-specific triage criteria, if appropriate to the situation[19]
- Directing dispatch centers to alert EMS crews for potential PPE needs, if appropriate to the situation
- Encouraging or requiring, when mandated, immunizations for staff
- Recommending BLS transport to non-Basic Emergency Facilities (BEF) from 911 scenes for low-acuity patients, if authorized by the EMS Medical Director
- Discourage non-essential family members/visitors/riders from accompanying ill or potentially infectious patients to the ED to avoid further exposures, if appropriate to the situation
- Recommending surgical masks and other relevant infection precautions for all transported patients, if appropriate to the situation
- Communicating capacity situation with on- and off-duty staff
  - Prepare for increased demand
  - Encourage off-duty staff to have a personal/family/pet preparedness plan (e.g., identify sources of personal medications, fuel, food, child/family/pet care)
- Providing logistics to support longer shift durations (e.g., food, child/family/pet care)
- Requesting PPE stock monitoring reporting on a daily or weekly basis
- Being ready to perform prompt shelter/space conversion inspections
- Preparing public safety resources for support functions (e.g., high-risk entry or transport teams, decontamination resources)

EDs and Base Hospitals:

EDs and base hospitals may consider:
- Staffing additional MICNs at peak periods at base hospitals
  - May split MICNs to monitor a single medical control channel as a split team, with each of the two ALS medical control radio systems monitored by a dedicated MICN[20]
- Deploying extra ED staff focused on triaging arriving EMS patients to improve ambulance back-to-service times[21]
- Reporting PPE stock, if appropriate to the situation

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[19] In medical call-taking triage systems, severe respiratory distress protocols may screen for contagious disease, allowing early notification to responders to don appropriate PPE prior to entering the scene.

[20] Paramedic medical control is divided between the City of San Diego's radio system and the Regional Communication System (RCS). Most MICN staffing patterns require a single MICN to monitor both radio systems. Splitting the team could increase radio traffic capacity, assisting EMS crews to transport patients in a coordinated, streamlined manner.

[21] Returning units to service in under 20 minutes is the goal, with times over 30 minutes considered an offload delay under County EMS Policy S-610. This is measured using the Transfer of Care system.

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Hospitals:

Acute care hospitals may consider:

- Monitoring the LEMSIS hospital status platform for incoming units
- Reporting internal hospital surge plan implementation and space conversion requests in the LEMSIS hospital status reporting platform[22]
- Converting existing outpatient beds to inpatient beds
- Reporting PPE stock, if requested
- Encouraging throughput:
  - Direct non-EMS patients with low acuity to non-ED destinations, if authorized
  - Expedite discharges
  - Expand the capacity of traditional facilities
- Communicating capacity situation with staff:
  - Prepare for increased demand
  - Encourage off-duty staff to prepare at home (e.g., fuel, food, child/family care)
  - Agency to prepare logistics to support longer duration shifts (e.g., food, child/family/pet care)
- Encouraging medical logistics preparation (e.g., treatments and testing supplies)
- Encouraging early contact with jurisdiction fire inspectors for anticipated hospital tent deployments
- Encouraging deploying increased housekeeping staff to increase bed turnover
- Enhancing staff and visitor handwashing procedures
- Posting influenza/situational awareness fliers for visitors
- Suggesting or requiring non-patient visitors delay visits until well and/or prohibiting children from entering healthcare buildings
- Issuing phone messaging/patient portal messaging to plan-covered patients with instructions on when to use advice lines, primary care, the ED, or to call 911
- Requesting staff immunize patients seen at all clinics, dialysis centers, and long-term care facilities
- Activating hospital command centers (if not done already), which link to County EOCs

Health Plans:

Health plans may consider:

- Issuing phone/patient portal messaging to plan-covered patients with directions for appropriate use of emergency services, including information regarding when to access advice lines, primary care, and/or 911

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[22] The LEMSIS hospital status reporting platform will be used to record when Department of Health and Human Services §1135/Program Flexibility waivers are requested and when a facility's internal surge plan is implemented.

- Requesting network providers immunize patients at all facilities, including but not limited to outpatient clinics, dialysis centers, and long-term care facilities
- Requesting contracted facilities extend hours of operation
- Requesting plans and pharmacy benefit managers to release restrictions (e.g., prior authorizations, refill limits, quantities, generic substitution) for medications that may be needed to treat patients affected by these emergencies

Community Health Centers, Outpatient Clinics, Urgent Care Facilities, Skilled Nursing Facilities, and Long-Term/Tertiary Care:

Community health centers, outpatient clinics, urgent care centers, skilled nursing/rehabilitation facilities, and long-term care facilities may consider:

- Communicating situational awareness information and encouraging personal and family preparedness for staff that may be requested to report to work
- Reviewing the facility's surge and disaster plans
- Enhancing staff and visitor handwashing procedures
- Posting influenza/situational awareness fliers for visitors
- Suggesting non-patient visitors delay visits until well and/or prohibit children from entering healthcare buildings
- Deploying increased housekeeping staff to increase patient space/beds/rooms turnover
- Requesting staff immunize patients seen at all clinics, dialysis centers, and long-term care facilities, as appropriate
- Requesting clinics and outpatient facilities extend hours of operation, as appropriate
- Reporting 3S Surge Capacity elements to HSCTF representatives, as appropriate

Level 2 Escalated Activation

The Level 2 Escalated Activation provides tools to health system agencies to address a significant, sustained surge in patient demand. This level engages a broader group of community partners and includes tactics to significantly expand health system capacity through non-traditional resource assignment, optimization of existing resources, and initiation of temporary changes to standard procedures.

> *Level 2 Escalated Activation addresses situations where regions of the health system are unable to meet demand or where several functions are disrupted.*

Level 2 Escalated Activation actions are focused on the 3S Surge Capacity framework:

- **Stuff**: Preserve resources where possible, and access emergency stores
- **Staff**: Expand the workforce through non-traditional resource assignment
- **Structure**: Expand and/or repurpose space, focus prehospital resources to meet demand; activate Incident Command Systems

Level 2 Escalated Activation initiation is a collaborative process among the CMO, PHO, EMS Medical Director, and the Operational Core Group. The final activation authority is the CMO, or designee. The indicator metrics inform this decision. Unless otherwise directed by the CMO, when Level 2 is activated, it shall be maintained for seven days after the last recorded Level 2 indicator was exceeded. When Level 2 is concluded, a step down to either Level 3 or Level 4 Enhanced Surveillance shall occur over at least seven days. All Capacity Plan activations are intended to remain in effect for the shortest time possible and de-escalate as soon as clinically and operationally indicated.

The CMO, or designee, has the authority to initiate Level 2 Escalated Activation. This decision may be informed by:

- PHO or EMS Medical Director or designee's recommendation
- Operational Core Group recommendation
- EMS/PHS metrics exceeding thresholds (see *Table 3: Level 2 Escalated Activation Metrics*)
- Regional events with substantial impacts on the county's health system, including but not limited to:
  - 2 or more hospitals evacuating all patients
  - One or more PSAPs disabled during an event
  - Power disruption with an anticipated duration of at least 24 hours during a heatwave

Indicator	Trigger to Activate Level 2	
Transfer of Care Time	Substantially above baseline range[23]	Activate Level 2 Actions
Influenza/ILI and Emergency Department Surveillance	Influenza Activity Level 10 with ED ILI 8% for 2 weeks in a row[24]	
Emergency Department Boarding	Supplement to other indicators[25] These data are used to support the operational and clinical decision-making process	
Emergency Department Bypass		
Prehospital Provider Impressions		
Prehospital Patient Volume		

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[23] Defined as 3 standard deviations above the baseline mean for two days in a three-day period.

[24] Defined as greater than 8 standard deviations above mean combined with ED ILI cases making up at least 8% of ED volume for the last two weeks.

[25] These triggers will be developed in the future as EMS data becomes more robust and baselines are statistically stable.

Level 2 Escalated Activation De-escalation:

Durations of activations may vary from the seven-day term, as determined by the CMO or designee, the EMS Medical Director, in consultation with partner/jurisdictional agencies. The EMS Medical Director shall continuously monitor indicator metrics.

Deactivation from Level 2 is a collaborative process among the CMO, PHO, EMS Medical Director, and the Operational Core Group. The final deactivation decision-maker is the CMO, or designee.

De-escalation from level 2 may be informed by:
- EMS/PHS metric triggers
- Recommendation of the Operational Core Group
- CMO/PHO/EMS Medical Director or designee's clinical impression

Actions to be taken during a Level 2 Escalated Activation:
County of San Diego:

County staff will continue Enhanced Surveillance and regular reporting throughout the Level 2 activation period.

- EMS Medical Director may consider:
  - Implementing closest appropriate destinations and/or suspending the medical home directive
    - May be guided by event-specific patient presentation parameters
  - Instituting radio report format changes
    - Adopting an abbreviated reporting format to maximize airtime availability while maintaining coordinated destination decisions
  - Issuing supplementary radios to BHs to increase MICN availability, if not previously done
  - Implementing a rotating receiving ED policy
  - Implementing Annex D and/or E
  - Engaging Expanded Operational Group for regular meetings (see *Appendix A: HSCTF Stakeholder Team Elements* for member list)
  - Engaging receiving EDs to accelerate EMS turnovers
  - Authorizing alternate transportation providers (e.g., transit services, non-emergency transportation providers)
  - Contacting CDPH to request assistance for space conversions and tent deployments
  - Issuing daily reports to the Operational Group, hospitals, and EMS administrators
- County CMO, PHO, and EMS Medical Director or their designee may consider:
  - Increasing messaging frequency, urgency of tone, and directives
    - This may include directives to self-isolate if ill, appropriate 911 use, or other messaging, as appropriate
  - CAHAN alerting
  - MHOAC alerting

- o Placing Medical Reserve Corps on standby
- o Preparing Public Health Emergency Orders
- o Extending County clinic open hours
- o Promoting community primary care provider use of telephone and other remote triage schemes and tele-visits using nationally-recognized triage protocols and community emergency standards
- o Assigning licensed County medical staff to clinical services
- o Assessing the need for alternate care site(s)
- o Requesting military or VA medical facilities to accept non-military/VA patients
- o Preparing requests for nurse ratio requirement waivers and waiving alternate destinations restrictions in concert with a Governor's Standby Order for Statutory Suspension

Fire/EMS Agencies:

Fire and EMS agencies may consider:

- Encouraging staffing deployment extension (e.g., longer shifts, callbacks, temporary staffing)
- Implementing alternate destination using alternate transportation methods (e.g., using BLS or other resources to transport low-acuity patients to non-BEF destinations)
- Providing just-in-time (J-I-T) training for alternate transportation methods (e.g., requesting nontraditional transport criteria and process)
- Permitting ALS units to deliver radio reports to satellite facilities for low acuity patients using BLS channels, if authorized by the EMS Medical Director
- Encouraging non-ALS response for BLS triaged patients from 911 PSAPs
- Implementing stacked call dispatching/non-traditional EMS transport
  - o Potential resource assignment tactics include:
    - Holding low acuity calls
    - Dispatching EMS providers in a non-traditional EMS vehicle (e.g., van, shuttle)
    - Implementing resource assignments to evaluate and transport two or more callers from nearby locations
- Identifying Disaster Medical Supply Units/County stock in case needed for EMS unit restocking

EDs and Base Hospitals:

EDs and base hospitals may consider:

- Encouraging staffing deployment extension through increased shift length, callbacks, and/or temporary staffing
- Requesting MICNs to staff BLS radio channels
- Coordinating with neighboring facilities, clinics, and tertiary care facilities for capacity/throughput resources
- Encouraging alternate staffing sources for deployment

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- Engaging non-clinical staff (e.g., clerical, administrative) for clinical support
- Identifying Disaster Medical Supply Units/County stock for logistic support
- Accepting stable patients in the waiting room, after EMS handover to ED personnel, allowing EMS resources to return to service more quickly

Hospitals:

Acute care hospitals may consider:
- Encouraging staffing deployment extension through increased shift length, callbacks, and/or temporary staffing
- Opening clinics, care centers, and outpatient facilities to the licensed maximum
- Contacting alternate staffing sources for deployment
- Engaging non-clinical staff (e.g., clerical, administrative) for clinical support
- Implementing phone calls, emails, and messaging via patient portals to patients with immunization locations, local alternates to seeking ED care, and other situation-appropriate advisements
- Engaging partner health systems to encourage them to delay or suspend patient reunification
- Activating hospital command centers (if not already done), link to County EOCs

Health Plans:

Health plans may consider:
- Implementing phone calls, emails, and messaging via patient portals to members to communicate immunization locations, local alternates to seeking ED care, and other situation-appropriate advisements
- In concert with contract or affiliated facilities, requesting administrators to open clinics, care centers, and outpatient facilities to the licensed maximum
- Requesting plans and pharmacy benefit managers to release restrictions (e.g., prior authorizations, refill limits, quantities, generic substitution) for medications that may be needed to treat patients affected by these emergencies
- Requesting plans and pharmacy benefit managers to speed mailed prescriptions or use courier services to deliver medications
- Expanding plan networks on a temporary basis

Community Health Centers, Outpatient Clinics, Urgent Care Centers, Skilled Nursing Facilities, and Long-Term/Tertiary Care:

Community health centers, outpatient clinics, urgent care centers, skilled nursing/rehabilitation facilities, and long-term care facilities may consider:
- Encouraging staffing deployment extension through increased shift length, callbacks, and/or temporary staffing
- Cohorting patients, if possible and/or appropriate for the situation
- Encouraging deploying supplemental housekeeping staff to increase patient space turnover

- Requesting staff immunize patients seen at all clinics, dialysis centers, and long-term care facilities
- Requesting clinics and outpatient facilities extend hours of operation
- Reporting 3S Surge Capacity elements (Stuff, Staff, Structure) to the HSCTF, as appropriate

Level 1: Full Activation

The Level 1 Full Activation provides methods to health system organizations to address a catastrophic surge in patient care needs. Level 1 engages the most comprehensive group of partners and includes tactics to employ all available resources, including mutual aid, state, military, and other federal sources. An extremely rare and catastrophic event would be required to trigger a Level 1 activation.

> *Level 1 Full Activation will be instituted for widespread system overload requiring resources from outside the area.*

Level 1 Full Activation actions are focused on the 3S Surge Capacity framework:

- **Stuff**: Distribute available resources, equipment, and supplies as available and to the areas of greatest effect
- **Staff**: Augment fully-engaged staff with volunteers and outside resources
- **Structure**: Activate alternate care sites, fully engage emergency structures

Level 1 Full Activation escalation is a collaborative process among the CMO, PHO, EMS Medical Director, and the Operational Core Group. The final activation authority is the CMO, or designee. When Level 1 is activated, the level is maintained for seven days after the last day in which Level 1 would have been activated. When Level 1 is de-activated, a step down to Level 2 or Level 3 will occur for seven days. All Capacity Plan activations are intended to remain in effect for the shortest time possible and de-escalate as soon as clinically indicated. In order to maintain flexibility for Capacity Plan activations, this level may also be activated through a formal State of Emergency declaration.[26]

The CMO, or designee, has the authority to initiate Level 1 Full Activation. These elements are part of the decision process:

- PHO or EMS Medical Director or designee's recommendation
- Operational Core Group recommendation
- Declaration of a State of Emergency for a specific event causing a significant disruption to the healthcare delivery systems
- EMS/PHS data shall be used to support operational and clinical decision-making (see *Table 4: Level 1 Full Activation Metrics*)
- Major infrastructure damage or degradation to communications, transportation, or other critical emergency response/health services organizations, including but not limited to:

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[26] Some emergency orders may not be associated with EMS/ED/hospital strain and can be excluded from this activation decision. Relevant States of Emergency may be proclaimed at the county, state, or federal level.

- Damage to two or more hospitals, rendering them unable to provide services
- Transportation infrastructure disruption affecting patient routing
- Inability of a large percentage of staff to report to work (e.g., due to widespread illness or transportation infrastructure disruptions) leading to inadequate personnel to provide necessary patient care activities

Table 4: Level 1 Full Activation Initiation Metrics

Indicator	Trigger to Activate Level 1	
Transfer of Care Time	These data streams are used to support the operational and clinical decision-making process[27]	Activate Level 1 Actions
Emergency Department Boarding		
Emergency Department Bypass		
Prehospital Provider Impressions		
Prehospital Patient Volume		
Influenza/ILI and Emergency Department Surveillance		

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[27] No clear trigger exists in current data for this trigger point without further data/evaluation. These triggers will be developed in the future as EMS data become more robust and baselines are statistically stable.

Level 1 Full Activation De-escalation:

Durations of activations may vary from the seven-day term, as determined by the CMO or designee, the EMS Medical Director, in consultation with partner/jurisdictional agencies. The EMS Medical Director shall continuously monitor indicator metrics.

Deactivation from Level 1 is a collaborative process among the CMO, PHO, EMS Medical Director, and the Operational Core Group. The final deactivation decision-maker is the CMO, or designee.

These elements will inform the de-escalation decision:

- EMS/PHS metrics (*Table 4: Level 1 Full Activation Metrics*)
- Recommendation of the Operational Core Group
- CMO/PHO/EMS Medical Director or designee's clinical impression

Actions to be considered during Level 1 Full Activation:
County of San Diego:

County staff will continue enhanced surveillance and daily reporting throughout the Level 1 activation period.

The Expanded Operational Group will meet regularly.

County will consider:
- Proclaiming Local Health Emergency
- Waiving base hospital contact for non-transports
- Issuing non-transport standing order criteria
- Implementing Annex D and/or E
- Deploying Medical Reserve Corps
- Activating alternate care site(s)
- Opening County EOCs, if not yet done
- Requesting mutual aid resources (e.g., state, federal, military)

Fire/EMS Agencies:

Fire and EMS agencies may consider:
- Instituting closest appropriate destinations – suspending the medical home directive upon EMS Medical Director authorization
- Instituting alternate destinations/alternate transportation methods (e.g., BLS transportation for patients that would have normally received an ALS transport or transporting BLS patients to nontraditional destinations)
- Implementing stacked call dispatching/non-traditional EMS transport

ED/Hospital:

Acute care hospitals, emergency departments, and base hospitals may consider:
- Engaging alternate staffing providers/deployment options
- Rescheduling of elective procedures
- Activating hospital command centers (if not done already), link to County EOCs

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Health Plans:

Health plans may consider:

- Removing restrictions (e.g., prior authorizations, refill limits, quantities) for medications that may be needed to treat patients affected by these emergencies
- Issuing phone messaging/patient portal messaging to plan members with updates, education, and/or directives

Community Health Centers, Outpatient Clinics, Urgent Care Facilities, Skilled Nursing Facilities, and Long-Term/Tertiary Care:

Community health centers, outpatient clinics, urgent care centers, skilled nursing/rehabilitation facilities, and long-term care facilities may consider:

- Issuing phone messaging/patient portal messaging to patients and family members with updates, education, and/or directives, as appropriate
- Reporting the organization's ability to sustain operations through HSCTF representatives

Appendix A: HSCTF Stakeholder Team Elements

Team Element	Representatives	Level activated

Internal Core Group	• HHSA MCSD staff:
	   o MCSD Chief Medical Officer, Deputy Chief Medical Officer, Child Health Medical Officer, and Chief Pharmacy Officer
	   o EMS Medical Director, EMS Administrator, and EMS program managers
	• HHSA PHS staff:
	   o Public Health Officer, Deputy Public Health Officer,
	   o Public Health Preparedness and Response managers
	   o Hospital Preparedness Program managers
	   o Medical Reserve Corps Coordinator
	• HHSA EMS-PHPR Duty Officer
		Level 5 Baseline Surveillance

Operational Core Group	• Internal Core Group • HASDIC/Hospital representative • Private EMS representative • Public EMS representative • Base Hospital representative • Metro area fire department representative	**Level 4 Enhanced Surveillance**
Operational Group	• Internal Core Group/Operational Core Group • San Diego County Fire Authority representative • County Office of Emergency Services representative • Skilled Nursing Facilities representative • Military (Naval Medical Center San Diego) • Healthy San Diego representative • Community Clinics (FHC, Health Center Partners) • Health Systems (e.g., representatives from each regional healthcare system operating acute care hospitals) • San Diego County Medical Society representative • PHS Border Health	**Level 3 Partial Activation**
Expanded Operational Group	• Internal Core Group/Operational Core Group/Operational Group • Subject Matter Experts, as appropriate • Veteran Affairs representative • CDPH Licensing and Certifications representative • County HHSA PIO/communications staff • Law enforcement representatives (local/state/federal), as appropriate	**Level 2 Escalated Activation**
Ad Hoc	• Ad hoc invitees, as appropriate	**Level 1 Full Activation**

Appendix B: HSCTF Sector Actions

County of San Diego Actions	
Level 5 Baseline Monitoring	Weekly summarized reporting of: • 911 medical call volume acquired from integrated Public Safety Answering Point (PSAP) data • Emergency department Transfer of Care times (both countywide and by County-defined regions) • ED bypass hours • Trends for Prehospital Provider Impressions derived from Base Hospital Records and Prehospital Care Reports • Sentinel event and ED reports made to County Emergency Medical Services (EMS) or Public Health Services (PHS) officials • Updates to earlier sentinel reports • Hospitals deploying space conversions or using alternate care sites (reported by the time/date the permit request is made to CDPH) • Hospitals with activated internal surge plans as recorded in the LEMSIS hospital status reporting platform • Weather events, advisories, and air quality reports
Level 4 Enhanced Surveillance	Activate Operational Core Group upon the CMO's direction
	Issue annual influenza-season targeted public messaging pending confirmation of influenza activity in the community (e.g., wash your hands, obtain vaccinations)
	Prepare and/or provide public messaging, as appropriate to the situation
	Solicit reports from fire, EMS, hospital, and/or other health system organization administrators: • Staffing shortages/unable to report to work (i.e., infrastructure damage inhibiting transportation) • Sick calls (compared to expected sick call rate for the organization) • Other sector-specific reports as situationally appropriate
	County Epidemiology team will monitor, track, and report: • Provider impression trends • Bypass hour trends (both county-wide and by County-defined regions) • TOC/PSAP metric trends (both county-wide and by County-defined regions) • Emergency department boarding trends • Relevant syndromic, environmental, or situational updates • Information published in Influenza Watch or other syndromic reports
	Alert clinics to develop clinical criteria for triaging patients to the appropriate level of care. • This may include telephonic visits with prophylactic and/or therapeutic pharmaceutical prescriptions as the situation dictates
	Broadly distribute communications including, but not limited to, PHO orders, relevant best practices, and public health and preparedness response advisements. Best practices may include initiating workforce respirator fit tests, providing personal protective equipment recommendations, confirming or updating vaccination status, and revising cleaning/decontamination procedures
	CMO, PHO, and EMS Medical Director coordinate communications for specific patient screening criteria, if appropriate to the situation (e.g., travel history, exposure management)
	CMO, PHO, and EMS Medical Director may consider California Health Alert Network (CAHAN) and/or Medical Health Operational Area Coordination (MHOAC) report distribution

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	EMS Medical Director may direct County EMS-PHPR Duty Officers to: • Initiate LEMSIS hospital status platform alerts requesting EDs provide relevant information as needed (e.g., surge plans, space conversions) • Contact CDPH Licensing and Certification Program District Office, County PHS, or other partners to provide situational awareness updates or to call for expedited request processing for County partners
Level 3	EMS Epidemiology shall issue regular reports to the Operational Core Group
	Alerts may be issued for hospital status reporting platform-tracked data, as appropriate: • Daily bed counts • Daily ED boarding • Daily ventilator, critical care supplies, personal protective equipment (PPE) stock, and other event-dependent specific supply levels
	EMS Medical Director may: • Implement twice-daily hospital status reporting platform counts • Contact California Emergency Medical Services Authority, CDPH, CDPH Licensing and Certifications staff, and other partners to provide situational awareness updates • Engage Operational Group for regular meetings • Coordinate with CDPH and County medical leadership to develop patient screening criteria • Coordinate with PHS/MCSD leadership for public messaging distribution • Mandate EMS staff wear event-specific PPE • Prepare medical guidance documents should situation escalate (e.g., screening tools, criteria for non-transport, alternate transport modalities) • Develop/adopt patient screening tools, situation updates, CDC/CDPH directives and other authoritative guidance documents, and/or best practice decontamination procedures
	HHSA PIO and County Communications Office, partner agencies, medical groups, and health plans may issue public communications. • These messages will be distributed through social media, traditional media, and other information systems. • The message may include a tone of urgency, instructions on the proper use of resources, or other critical updates and recommendations
	County EMS and PHS shall: • Initiate requests for regulatory relief, waivers, or other special exceptions to baseline County authorities, in consultation with County counsel, as indicated • Ensure County logistic support is deployment-ready • Consider activating backup duty officer to assist with monitoring hospital status reporting platform, PSAPs, and/or other communications/system portals • Establish communications with local CDPH office to provide situational awareness • Consider issuing supplementary radios to Base Hospitals (BH) to increase Mobile Intensive Care Nurse (MICN) medical control availability • Distribute relevant guidance directly to providers through LEMSIS/distribution groups o This guidance may include patient screening tools, situation updates, CDC/CDPH directives, and other authoritative guidance documents, and/or best practice decontamination procedures • Consider CAHAN development/distribution and/or MHOAC reporting Open County EOCs, if not yet done • Engage Chief Pharmacy Officer for medication tracking/regional pharmaceutical availability status

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	• Establish dialogue with military and Veterans Affairs personnel for resource access assessment for non-military patients/supplies/support

Level 2 Actions	EMS Medical Director may consider:
	• Implementing closest appropriate destinations and/or suspend the medical home directive
	    o May be guided by event-specific presentation parameters
	• Instituting radio report changes
	    o Adopting an abbreviated reporting format to maximize airtime availability while maintaining coordinated destination decisions
	• Issuing supplementary radios to BHs to increase MICN availability, if not previously done
	• Implementing a rotating receiving ED policy
	• Implementing Annex D and/or E, if appropriate
	• Engaging Expanded Operational Group for regular meetings
	• Engaging receiving EDs to accelerate EMS turnovers
	• Authorizing alternate transportation providers (e.g., transit services, non-emergency transportation providers)
	• Contacting CDPH to request assistance for space conversions and tent deployments
	• Issuing daily reports to the Operational Group, hospitals, and EMS administrators<hr>County CMO, PHO, and EMS Medical Director or their designee may consider:
	• Increasing messaging frequency, urgency of tone, and directives
	    o This may include directives to self-isolate if ill, appropriate 911 use, or other messaging as appropriate
	• CAHAN alerting
	• MHOAC alerting
	• Placing Medical Reserve Corps on standby
	• Preparing Public Health Emergency Orders
	• Extending County clinic open hours
	• Promoting community primary care provider use of telephone and other remote triage schemes and tele-visits using nationally-recognized triage protocols and community emergency standards
	• Assigning licensed County medical staff to clinical services
	• Assessing the need for alternate care site(s)
	• Requesting military and/or VA medical facilities to accept non-military/VA patients
	• Preparing requests for nurse ratio relaxation and alternate destination waivers in concert with a Governor's Standby Order for Statutory Suspension

Level 1 Actions	County will consider: • Proclaiming Local Health Emergency • Waiving base hospital contact for non-transports • Issuing non-transport standing order criteria • Implementing Annex D and/or E • Deploying Medical Reserve Corps • Activating alternate care site(s) • Opening County EOCs, if not yet done • Requesting mutual aid resources from state, federal, and/or military sources

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Fire/EMS Actions	
Fire and EMS agencies may consider:	
Level 3 Actions	Staffing additional units or altering shift deployment • This may include all county Advanced Life Support (ALS), First Responder (FR), and Basic Life Support (BLS) agencies
	Encouraging dispatch centers to augment numbers of call-taking staff
	Instituting medical dispatch severe respiratory illness or other event-specific triage criteria, if appropriate to the situation
	Directing dispatch centers to alert EMS crews for potential PPE needs, if appropriate to the situation
	Encouraging or requiring, when mandated, immunizations for staff
	Recommending BLS transport to non-Basic Emergency Facilities (BEF) from 911 scenes for low-acuity patients, if authorized
	Discourage non-essential family members/visitors/riders from accompanying ill or potentially infectious patients to the ED to avoid further exposures, if appropriate to the situation
	Recommending surgical masks and other relevant infection precautions for all transported patients, if appropriate for the situation
	Communicating capacity situation with on- and off-duty staff • Prepare for increased demand • Encourage off-duty staff to have a personal/family/pet preparedness plan (e.g., identify sources of personal medications, fuel, food, child/family/pet care)
	Providing logistics to support longer shift durations (e.g., food, child/family/pet care)
	Requesting PPE stock monitoring reporting on a daily or weekly basis
	Being ready to perform prompt shelter/space conversion inspections
	Preparing public safety resources for support functions (e.g., high-risk entry or transport teams, decontamination resources)
Level 2 Actions	Encouraging staffing deployment extension (e.g., longer shifts, callbacks, temporary staffing)
	Implementing alternate destinations/alternate transportation methods (e.g., using BLS or other resources to transport low-acuity patients to non-BEF destinations)
	Providing J-I-T training for alternate transportation methods (e.g., requesting nontraditional transport criteria and process)
	Permitting ALS units to deliver radio reports to satellite facilities for low acuity patients using BLS channels, if authorized by the EMS Medical Director
	Encouraging non-ALS response for BLS triaged patients from PSAPs

	Implementing stacked call dispatching/non-traditional EMS transport
	• Potential resource assignment tactics include:
	  o Holding low acuity calls
	  o Dispatching EMS providers in a non-traditional EMS vehicle (e.g., van, shuttle)
	  o Implementing resource assignments to evaluate and transport two or more callers from nearby locations

	Identify Disaster Medical Supply Units/County stock for EMS unit restocking

Level 1 Actions	Instituting closest appropriate destinations – suspending the medical home directive upon EMS Medical Director authorization
	Instituting alternate destinations/alternate transportation methods (e.g., BLS transportation for patients that would have normally received an ALS transport or transporting BLS patients to nontraditional destinations)
	Implementing stacked call dispatching/non-traditional EMS transport

Hospital/ED Actions	
Acute care hospitals, emergency departments, and base hospitals may consider:	
Level 3 Actions	Staffing additional MICNs at peak periods at base hospitals • May split MICNs to monitor a single medical control channel as a split team, with each of the two ALS medical control radio systems monitored by a dedicated MICN
	Deploying additional ED staff focused on triaging arriving EMS patients to improve ambulance back-to-service times
	Monitoring the LEMSIS hospital status platform for incoming units
	Reporting internal hospital surge plan implementation and space conversion requests in the LEMSIS hospital status reporting platform
	Converting existing outpatient beds to inpatient beds
	Reporting PPE stock, if requested
	Encouraging throughput: • Direct non-EMS patients with low acuity to non-ED destinations, if authorized by the EMS Medical Director • Expedite discharges • Expand the capacity of traditional facilities
	Communicating capacity situation with staff: • Prepare for increased demand • Encourage off-duty staff to prepare at home (e.g., fuel, food, child/family care) • Agency to prepare logistics to support longer duration shifts (e.g., food, child/family/pet care)
	Encouraging medical logistics preparation (e.g., treatments and testing supplies)
	Encouraging early contact with jurisdiction fire inspectors for anticipated hospital tent deployments
	Encouraging deploying increased housekeeping staff to increase bed turnover
	Enhancing staff and visitor handwashing procedures
	Posting influenza/situational awareness fliers for visitors
	Suggesting or requiring non-patient visitors delay visits until well and/or prohibiting children from entering healthcare buildings
	Issuing phone messaging/patient portal messaging to plan-covered patients with instructions on when to use advice lines, primary care, the ED, or to call 911
	Requesting staff immunize patients seen at all clinics, dialysis centers, and long-term care facilities
	Activating hospital command centers (if not done already), which link to County EOCs
Level 2 Actions	Encouraging staffing deployment extension through increased shift length, callbacks, and/or temporary staffing
	Requesting extra MICNs to staff BLS radio channels

	Coordinating with neighboring facilities, clinics, and tertiary care facilities for capacity/throughput resources
	Encouraging alternate staffing sources for deployment
	Opening clinics, care centers, and outpatient facilities to the licensed maximum
	Engaging non-clinical staff (e.g., clerical, administrative) for clinical support
	Identifying Disaster Medical Supply Units/County stock for logistic support
	Accepting stable patients in the waiting room, after EMS handover to ED personnel, allowing EMS resources to return to service more quickly
	Implementing phone calls, emails, and messaging via patient portals to patients with immunization locations, local alternates to seeking ED care, and other situation-appropriate advisements
	Engaging partner health systems to encourage them to delay or suspend patient reunification
	Activating hospital command centers (if not already done), link to County EOCs
Level 1 Actions	Engaging alternate staffing providers/deployment options
	Rescheduling of elective procedure
	Activating hospital command centers (if not done already), link to County EOCs

Health Plan Actions
Health plans may consider:

Level 3 Actions	Issuing phone/patient portal messaging to plan-covered patients with directions for appropriate use of emergency services, including information regarding when to access advice lines, primary care, and/or 911
	Requesting network providers immunize patients at all facilities, including but not limited to outpatient clinics, dialysis centers, and long-term care facilities
	Requesting contracted facilities extend hours of operation
	Requesting plans and pharmacy benefit managers to release restrictions (e.g., prior authorizations, refill limits, quantities, generic substitution) for medications that may be needed to treat patients affected by these emergencies
Level 2 Actions	Implementing phone calls, emails, and messaging via patient portals to members to communicate immunization locations, local alternates to seeking ED care, and other situation-appropriate advisements
	In concert with contract or affiliated facilities, opening clinics, care centers, and outpatient facilities to the licensed maximum
	Requesting plans and pharmacy benefit managers to release restrictions (e.g., prior authorizations, refill limits, quantities, generic substitution) for medications that may be needed to treat patients affected by these emergencies
	Requesting plans and pharmacy benefit managers to speed mailed prescriptions or use courier services to allow patients to deliver medications
	Expanding plan networks on a temporary basis
Level 1 Actions	Removing release restrictions (e.g., prior authorizations, refill limits, quantities) for medications that may be needed to treat patients affected by these emergencies
	Issuing phone messaging/patient portal messaging to plan members with updates, education, and/or directives

| **Community Health Centers, Outpatient Clinics, Urgent Care Facilities, Skilled Nursing Facilities, and Long-Term/Tertiary Care** |
| --- |
| Community health centers, outpatient clinics, urgent care centers, skilled nursing/rehabilitation facilities, and long-term care facilities may consider: |

Level 3 Actions	Communicating situational awareness information and encouraging personal and family preparedness for staff that may be requested to report to work
	Reviewing the facility's surge and disaster plans
	Enhancing staff and visitor handwashing procedures
	Posting influenza/situational awareness fliers for visitors
	Suggesting non-patient visitors delay visits until well and/or prohibit children from entering healthcare buildings
	Deploying increased housekeeping staff to increase patient space/beds/rooms turnover
	Requesting staff immunize patients seen at all clinics, dialysis centers, and long-term care facilities, as appropriate
	Requesting clinics and outpatient facilities extend hours of operation
	Reporting 3S elements (Stuff, Staff, Structure) to HSCTF representatives, as appropriate
Level 2 Actions	Encouraging staffing deployment extension through increased shift length, callbacks, and/or temporary staffing
	Cohorting patients, if possible and/or appropriate for the situation
	Encouraging deploying supplemental housekeeping staff to increase patient space turnover
	Requesting staff immunize patients seen at all clinics, dialysis centers, and long-term care facilities
	Requesting clinics and outpatient facilities extend hours of operation
	Reporting 3S Surge Capacity elements (Stuff, Staff, Structure) to the HSCTF, as appropriate
Level 1 Actions	Issuing phone messaging/patient portal messaging to patients and family members with updates, education, and/or directives, as appropriate
	Reporting the organization's ability to sustain operations through HSCTF representatives

Appendix C: Escalation Table

Indicator	Trigger to Initiate Enhanced Surveillance		Trigger to Initiate Level 3		Trigger to Initiate Level 2		Trigger to Initiate Level 1	
Transfer of Care Time	Above range for 2 out of 3 consecutive days	Baseline Surveillance	Above range 4 days in a 7-day period -OR- Considerably above range 2 days in a 3-day period	Enter Enhanced Surveillance	Substantially above baseline range	Activate Level 3 Actions	These data streams are used to support the operational and clinical decision-making process	Activate Level 2 Actions
Emergency Department Boarding	Supplement to other indicators		Supplement to other indicators		These data streams are used to support the operational and clinical decision-making process			
Emergency Department Bypass	Supplement to other indicators		6 or more hospitals reporting 8 or more bypass hours in a single day, 2 days in a row					
Prehospital Provider Impressions	Supplement to other indicators		Four symptom categories substantially above range for 4 days in a 7-day period					
Prehospital Patient Volume	Above range for 2 out of 3 consecutive days		Supplement to other indicators					
Influenza/ILI and Emergency Department Surveillance	Influenza Activity Level 6 with ED ILI 3% 2 weeks in a row - OR - Respiratory ED 12% or higher 2 weeks in a row		Influenza Activity Level 8 with ED ILI 5% 2 weeks in a row		Influenza Activity Level 10 with ED ILI 8% 2 weeks in a row			
Operational and Clinical Decision	Sentinel or significant local events PHO/EMS Medical Director recommendation		Regional events with significant impacts on the county's health system Operational Core Group Recommendation PHO/EMS Medical Director recommendation		Regional events with substantial impacts on the county's health system Operational Core Group Recommendation PHO/EMS Medical Director recommendation		Declaration of a selected State of Emergency in a specific event causing a significantly degraded health system Major infrastructure damage to communications, transportation, or other critical emergency response/health services organizations Operational Core Group Recommendation PHO/EMS Medical Director recommendation	Activate Level 1 Actions

Appendix D: De-escalation Flowchart
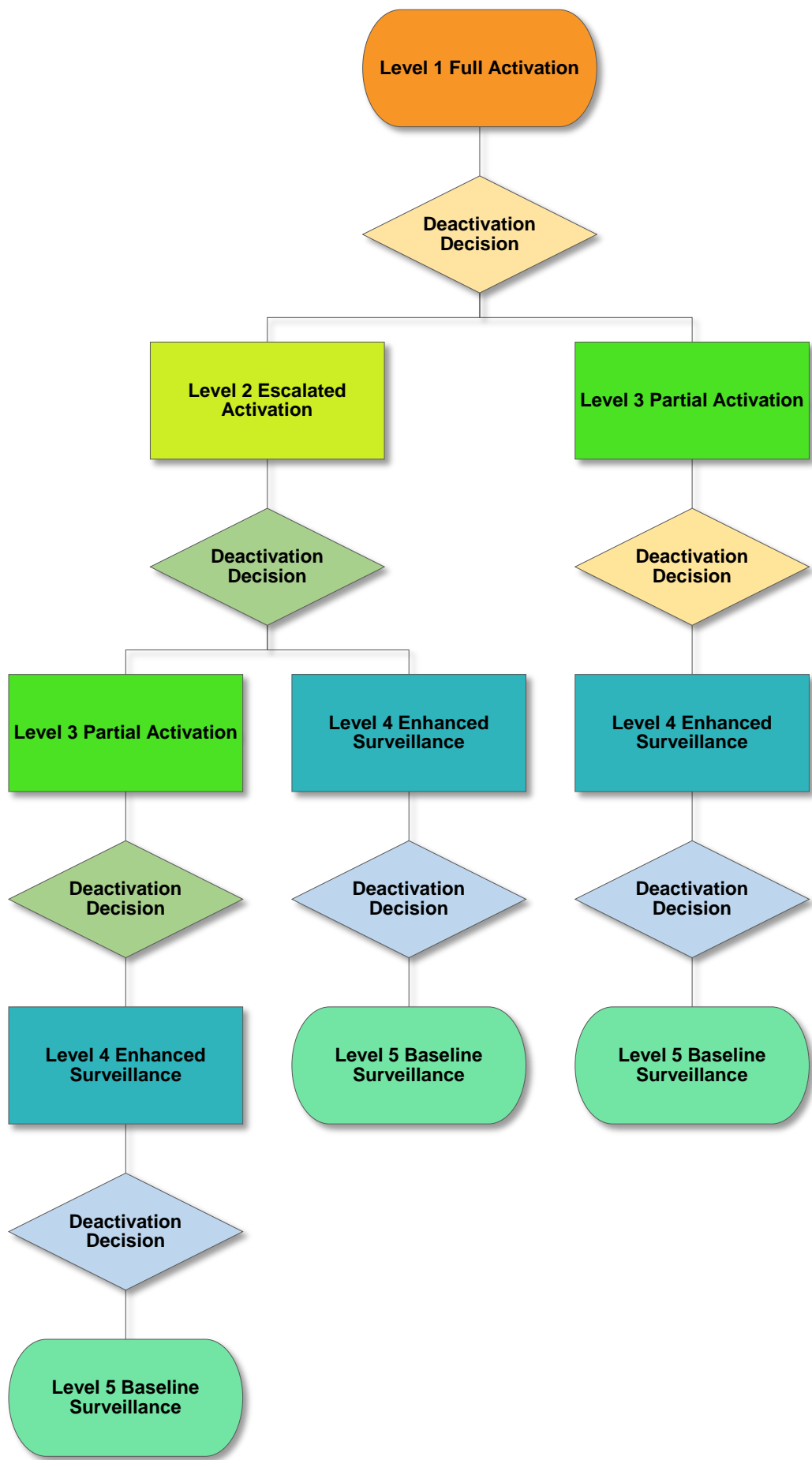
Appendix E: Baseline Monitoring Reporting Details

The weekly analytic summary shall include:

- 911 medical call volume acquired from integrated Public Safety Answering Point (PSAP) data[28]
- Emergency department (ED) Transfer of Care (TOC) times by region and countywide
- ED bypass hours
- Trends for Prehospital Patient Volume and Prehospital Provider Impressions derived from Base Hospital Records and Prehospital Care Reports[29]
- Sentinel event and ED reports made to County officials
- Updates to earlier sentinel reports
- Hospitals deploying space conversions or using alternate care sites (reported by the time/date the permit request is made to CDPH)
- Hospitals with activated internal surge plans as recorded in the LEMSIS hospital status reporting platform
- Weather events, advisories, and air quality reports

Table 5: Level 5 Baseline Surveillance Reporting Matrix

What	When	Who collects/analyzes	Who receives
ED bypass	Daily monitoring	EMS Epidemiology	-
ED boarding	Daily monitoring	EMS Epidemiology	-
Syndromic trends and incident case capture	Daily monitoring	PHS Epidemiology and Immunization Services (EISB)	-
Wildfire threat index	Two times per week monitoring, more often if warning issued	US Forest Service	-

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[28] Not all county PSAPs are integrated as of 2019; staff plan to add these data in future revisions.
[29] The Prehospital Provider Impression trending is currently derived from Base Hospital Record databases, with Prehospital Care Reports planned for future integration.

Weather/air quality	Two times per week monitoring, more often if warning issued	National Weather Service (NWS)	-
Internal surge plan usage	Weekly monitoring	EMS Epidemiology	-
Space conversion/program flexibility waiver requests	Weekly monitoring	EMS Epidemiology	-
Prehospital Patient Volume	Daily monitoring	EMS Epidemiology	-
Transfer of Care time	Daily monitoring	EMS Epidemiology	County EMS Agencies
Flu Watch or other syndromic reports	Weekly monitoring	PHS EISB Epidemiology	Posted on Public Website
Summary of all relevant indicators	Weekly reporting	EMS Epidemiology	Internal Core Group

Appendix F: Enhanced Surveillance Reports

Table 6: Level 4 Enhanced Surveillance Reporting Matrix

What	When	Who collects/analyzes	Who receives
ED bypass	Daily monitoring	EMS Epidemiology	-
ED boarding	Daily monitoring	EMS Epidemiology	
Prehospital Provider Impressions	Daily monitoring	EMS Epidemiology	-
Prehospital Patient Volume	Daily monitoring	EMS Epidemiology	-
Syndromic trends and incident case capture	Daily monitoring	PHS Epidemiology and Immunization Services (EISB)	-
Wildfire threat index	Daily monitoring	US Forest Service	Internal Core Group if watch issued
Weather/air quality/environmental	Daily monitoring	National Weather Service	Internal Core Group if watch issued
Situational alerts from other agencies or organizations[30]	Daily monitoring	External agencies	-

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[30] These organizations include County Office of Emergency Services (OES), California Office of Emergency Services (Cal OES), Centers for Disease Control and Prevention (CDC) and other authoritative sources.

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Transfer of Care times	Daily monitoring	EMS Epidemiology	-
Internal surge plan usage	Daily monitoring	EMS Epidemiology	-
Space conversion/program flexibility waiver requests	Daily monitoring	EMS Epidemiology	-
Sick calls/staffing reports	Enhanced surveillance measures	EMS-PHPR DO/EMS Epidemiology	-
Sentinel ED, lab results, and other relevant groups	Weekly reporting	PHS EISB Epidemiology	Public Health stakeholders
Flu Watch or other syndromic reports	Weekly reporting	PHS EISB Epidemiology	Posted on public website
Summary/trending of all indicators, other situational updates	Daily reporting	EMS Epidemiology	Operational Core Group

Emergency Department Boarding – All hospitals submit the ED boarding count daily. This count is determined prior to the emergency department's morning shift change. ED staff enter the counts into the LEMSIS hospital status reporting platform shortly after shift change has occurred. The boarding count is divided into four categories:

- Behavioral Health: A patient for whom the decision has been made to admit to a psychiatric unit and is waiting in the ED for inpatient bed availability at any facility
- ICU: A patient for whom the decision has been made to admit to the ICU and is waiting in the ED for inpatient bed availability at any facility
- Med-Surg: A patient for whom the decision has been made to admit to Med-Surg and is waiting in the ED for inpatient bed availability at any facility
- Tele: A patient for whom the decision has been made to admit to Telemetry and is waiting in the ED for inpatient bed availability at any facility

Emergency Department Bypass – This measures the total amount of time in which San Diego County emergency departments have initiated ambulance bypass (diversion). This indicator is a proxy for ED traffic and overall system stress, capturing demand from both walk-in and EMS patients. The emergency departments included in this calculation are 21 San Diego County EDs/common receiving facilities. List of included EDs are:

- Alvarado Hospital Medical Center
- Kaiser San Diego Medical Center
- Kaiser Zion Medical Center
- Naval Hospital, Camp Pendleton
- Naval Medical Center, San Diego
- Palomar Medical Center
- Palomar Medical Center-Poway Campus
- Paradise Valley Hospital
- Rady Children's Hospital
- Scripps Memorial Hospital Encinitas
- Scripps Memorial Hospital La Jolla
- Scripps Mercy Hospital Chula Vista
- Scripps Mercy Hospital San Diego
- Sharp Chula Vista Medical Center
- Sharp Coronado Hospital
- Sharp Grossmont Hospital
- Sharp Memorial Hospital
- Tri-City Medical Center
- UCSD Medical Center
- UCSD Thornton Hospital

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- VA San Diego Healthcare

Influenza Activity Levels – Influenza activity and numbers of patients with respiratory symptoms are monitored by the County of San Diego, Health and Human Services, Public Health Services, Epidemiology and Immunization Services Branch. The influenza activity level compares the number of reported influenza cases for the current week (Sunday - Saturday) to the mean (and the number of standard deviations above of the mean) of the reported influenza cases during non-influenza season weeks (CDC disease weeks 27-39). The percent of ED visits with influenza-like illness and respiratory symptoms is derived from the number of emergency department patients reporting corresponding indications. For more information, see the weekly Influenza Watch, found here:

> https://www.sandiegocounty.gov/content/sdc/hhsa/programs/phs/community_epidemiology/dc/influenza.html

Internal monitoring – An assessment of indicator level by County of San Diego Emergency Medical Services (EMS) epidemiologists (without reporting).

Prehospital Patient Volume – This measures the total number of patients for whom EMS personnel contacted a base hospital. This represents the vast majority of all 911 EMS responses in the County of San Diego.

Prehospital Provider Impressions – This measures the total number of prehospital patients with specific symptom categories. Prehospital Provider Impression tracking allows syndromic identification of community events, including weather, infectious disease, or other illness or injury-causing situations.

Reporting – A suite of surveillance indicators provided to the Operational Core Group for early analysis.

Transfer of Care time – This is a measure of the daily average time for patient handover after an ambulance arrives at the hospital ED. Increased TOC times are an indicator of increased ED patient boarding times and possibly ED volume.

Wildfire Threat Index – The Santa Ana Wildfire Threat Index (SAWTI) categorizes Santa Ana winds based on predicted fire potential. The index uses a comprehensive, state-of-the-art predictive model that includes dead fuel moisture, live fuel moisture, and the greenness of annual grasses to create a detailed daily assessment of the fuel conditions across Southern California. This information is coupled with calibrated weather model output (composed of wind speed and atmospheric moisture), to generate a 6-day forecast of Large Fire Potential. The Large Fire Potential output is then compared to climatological data and historical fire occurrence to establish the index rating. The USDA Forest Service and Predictive Services produce this product. The ratings are:

- <u>No Rating</u> – Santa Ana winds are either not expected or will not contribute to significant fire activity.

- Marginal - Upon ignition, fires may grow rapidly.
- Moderate - Upon ignition, fires will grow rapidly and will be difficult to control.
- High - Upon ignition, fires will grow very rapidly, will burn intensely, and will be very difficult to control.
- Extreme - Upon ignition, fires will have extreme growth, will burn very intensely, and will be uncontrollable.

Weather Surveillance – A reporting of upcoming weather-related "Watches," "Advisories," and "Warnings" as determined by the National Weather Service.

- Watch - A watch is used when the risk of a hazardous weather or hydrologic event has increased significantly, but its occurrence, location, and/or timing is still uncertain. It is intended to give enough lead time so that those who need to set their plans in motion can do so.
- Advisory - Highlights special weather conditions that are less serious than a warning. They are for events that may cause significant inconvenience, and if caution is not exercised, it could lead to situations that may threaten life and/or property.
- Warning - A warning is issued when a hazardous weather or hydrologic event is occurring, is imminent, or has a very high probability of occurring. A warning is used for conditions posing a threat to life or property.

Appendix H: Trigger Metric Statistical Details

Indicator	Trigger to Initiate Enhanced Surveillance	Trigger to Initiate Level 3	Trigger to Initiate Level 2	Trigger to Initiate Level 1
Transfer of Care Time	1.5 SD above mean for 2 out of 3 consecutive days[31]	2 days above 2 SD in a 3-day period -OR- 4 days above 1.5 SD in a 7-day period	2 days above 3 SD in a 3-day period	These data streams are used to support the operational and clinical decision-making process
Emergency Department Boarding	Supplement to other indicators	Supplement to other indicators	These triggers will be developed in the future as EMS data becomes more stable	
Emergency Department Bypass	Supplement to other indicators	6 or more hospitals reporting 8 or more bypass hours in a single day, 2 days in a row		
Prehospital Provider Impressions	—	4 individual symptom categories 2 SD above mean 4 days in a 7-day period		
Prehospital Patient Volume	2 SD above mean for 2 out of 3 consecutive days	Supplement to other indicators		
Influenza/ILI and Emergency Department Surveillance	Influenza Activity Level 6 with ED ILI 3% 2 weeks in a row[32] - OR - Respiratory ED 12% or higher 2 weeks in a row[33]	Influenza Activity Level 8 with ED ILI 5% 2 weeks in a row	Influenza Activity Level 10 with ED ILI 8% 2 weeks in a row	

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[31] Standard deviation (SD) is a statistical measurement used to evaluate the variation from the average values and allows County epidemiologists to identify those events outside of baseline in a dynamic system.

[32] Influenza Activity Level 6 with ED ILI 3% 2 weeks in a row is the trigger during the declared influenza season.

[33] ED respiratory volume at 12% for a 2-week period is the trigger for non-influenza season.

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Addendum 1: Terms and Acronyms

ALS – Advanced Life Support, typically referring to a paramedic-staffed EMS unit or response vehicle.

Annex D – The operational annex for coordinating the response to a mass-casualty incident in the County of San Diego Emergency Operations Plan. Annex D allows mobilization of specific resources to support an incident. Annex D may be found at this link:

> https://www.sandiegocounty.gov/content/dam/sdc/oes/emergency_management/plans/op-area-plan/2018/2018-Annex-D-Mass-Casualty-Incident-Operations.pdf

Annex E – The Public Health Operations Annex E describes the basic concepts, policies, and procedures for providing public health services in the event of any emergency or disaster. This plan is an element of the County of San Diego Emergency Operations Plan. Annex E may be found at this link:

> https://www.sandiegocounty.gov/content/dam/sdc/oes/emergency_management/plans/op-area-plan/2018/2018-Annex-E-Public-Health-Operations.pdf

BEF – Basic Emergency Facility, as defined in California regulations. By State regulation, EMS personnel may be limited to transporting patients to Basic Emergency Facilities.

BH – Base Hospital, or Paramedic Base Hospital, is the designation for an acute care hospital that provides medical oversight and supervision of paramedic personnel.

BHR – Base Hospital Record. This record is completed by the Base Hospital Mobile Intensive Care Nurse for virtually every paramedic radio contact. These records are the source of the Prehospital Provider Impressions used to identify syndromic information and are a proxy measure for overall paramedic contact volume.

BLS – Basic Life Support, denoting an EMT-level transport resource or agency. BLS agencies may provide 911 or interfacility services.

CAHAN – California Health Alert Network. The County of San Diego Health and Human Services Agency Public Health Services Division sends priority health communications to health care and public safety professionals in San Diego County through CAHAN advisories.

Cal OES - California Governor's Office of Emergency Services oversees and coordinates state response to disasters and other emergencies.

CDC – Centers for Disease Control and Prevention.

CDPH – The California Department of Public Health is the state department responsible for public health in California. CDPH monitors for infectious disease and coordinates statewide response.

CDPH Licensing & Certification – The California Department of Public Health Licensing and Certification program regulates and licenses healthcare facilities.

CMO – Chief Medical Officer and Director of the County of San Diego Medical Care Services Division, Health and Human Services Agency.

DOC – The County of San Diego Health and Human Services Agency HHSA Departmental Operations Center, which provides support for a variety of public health functions in an emergency.

ED – Emergency department.

EISB – County of San Diego Health and Human Services Agency Public Health Epidemiology and Immunization Services coordinates immunizations practices and provides surveillance, investigation, and response for diseases.

EMS – Emergency Medical Services. In this document, EMS refers to the County EMS Section, which oversees the EMS system, as well as the EMS agencies providing services to the community.

EMS-PHPR DO – The joint County of San Diego Emergency Medical Services/Public Health Preparedness and Response Duty Officer on-call program supports the community response to emergencies.

FHC – Family Health Centers of San Diego.

FR– First Responder. First Responders staff EMS response units that provide care in the field, but do not transport.

HASDIC – Hospital Association of San Diego & Imperial Counties.

Healthy San Diego – Connects Medi-Cal beneficiaries to one of several Managed Care Plans operating in San Diego County.

HHSA – The Health and Human Services Agency is one of five groups or divisions of the County of San Diego government. The Agency provides a broad range of health and social services to promote wellness, self-sufficiency, and a better quality of life for individuals and families in San Diego County, and in support of the *Live Well San Diego* vision.

HSCTF – Health Services Capacity Task Force.

ILI – Influenza-like Illness. ILI is used to describe the general patient presentation that could be an influenza infection or another contagious pathogen.

HICS – Hospital Incident Command System is an incident management system based on principles of the Incident Command System, which assists hospitals and healthcare organizations in improving their emergency mitigation, preparedness, response and recovery capabilities for unplanned and planned events. HICS is consistent with ICS and the National Incident Management System principles.

LEMSIS – The integrated Local Emergency Medical Services Information System collects and manages a wide range of EMS-related data. These data include prehospital patient care records, base hospital records, system resources (e.g., hospital resources, bypass status), personnel and agency records, and specialty care registries.

MCSD – Medical Care Services Division is a division of the County of San Diego Health and Human Services Agency. MCSD supports access to quality, timely, and evidence-based care in San Diego County's communities, and is the parent organization to the County of San Diego EMS Section.

MHOAC – Medical Health Operational Area Coordinator program coordinates statewide healthcare resources to support disaster operations. MHOAC also refers to the person designated to coordinate this program in each of the State regions.

MICN – Mobile Intensive Care Nurse is a State of California licensed registered nurse specifically authorized to provide prehospital medical control.

MOC – The County of San Diego Medical Operations Center is responsible for communications and coordination for prehospital EMS services and health care provider operations.

NIMS – The National Incident Management System provides a consistent nationwide template to enable Federal, State, local, and tribal governments and private-sector and nongovernmental organizations to work together effectively.

OES – The County of San Diego Office of Emergency Services coordinates the overall county response to disasters.

PCR – Prehospital Care Report. This record is completed for any prehospital contact.

PHO – Public Health Officer and Director of the County of San Diego Public Health Services Division, Health and Human Services Agency.

PHPR – Public Health Preparedness and Response coordinates Public Health Services' healthcare disaster preparedness efforts.

PHS – Public Health Services is a division of the County of San Diego Health and Human Services Agency. County of San Diego Public Health Services

promotes health and improves quality of life by preventing disease, injury, and disability. PHS also coordinates the preparedness and response to health threats and disasters through several programs, including the PHPR unit.

PIO – Public Information Officer.

PPE – Personal Protective Equipment.

PSAP – Public Safety Answering Point, more commonly known as a "dispatch center," takes calls and dispatches public safety resources.

RCS – The San Diego - Imperial County Regional Communications System provides public safety voice and data communications.

TOC – Transfer of Care. See *Appendix G: Data Definitions* for specific definitions.

VA – Department of Veteran Affairs, and in this plan refers to the healthcare resources in Veteran Affairs healthcare facilities.

Addendum 2: Figures and Tables

Addendum 3: Table of Contents

All-Hazard Health Services Capacity Management Plan
2018 – 2019

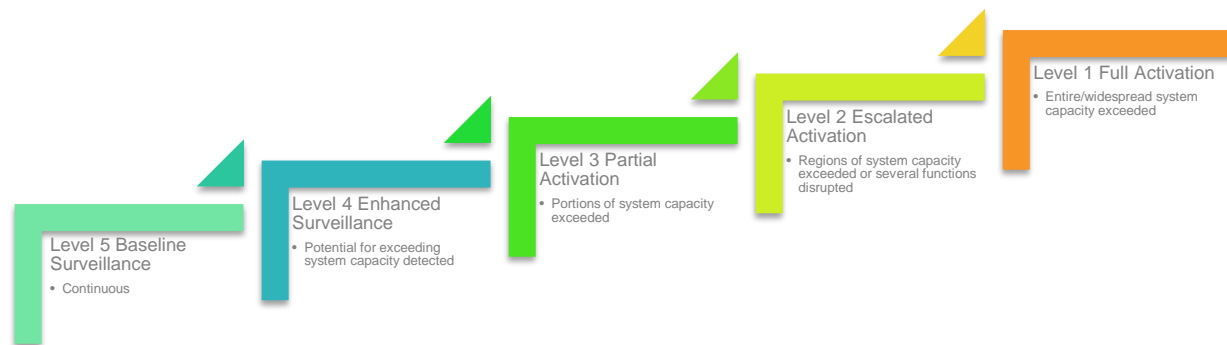## Quick Reference Guide – County of San Diego

Level 5 Baseline Surveillance is the continuous system monitoring performed by County staff. The surveillance process includes analysis with weekly reporting.

Level 4 Enhanced Surveillance monitors Health System stress through specific trended metrics, designed to detect a developing situation before it becomes a crisis.

Level 3 Partial Activation is linked to the first significant system actions to allow health services partners to collaboratively address demands exceeding portions of the health system capacity. The Level 3 operational period will be 7 days from the last day with above range measurements unless a decision to deactivate sooner is made.

Level 2 Escalated Activation addresses situations where regions of the health system are unable to meet demand or where several functions are disrupted. The Level 2 operational period will be 7 days from the last day with above range measurements unless a decision to deactivate sooner is made.

 Level 1 Full Activation will be instituted for widespread system overload requiring resources from outside the area. The Level 1 operational period will be 7 days from the last day with above range measurements unless a decision to deactivate sooner is made.

Level 5 Baseline Surveillance
• Continuous

Level 4 Enhanced Surveillance
• Potential for exceeding system capacity detected

Level 3 Partial Activation
• Portions of system capacity exceeded

Level 2 Escalated Activation
• Regions of system capacity exceeded or several functions disrupted

Level 1 Full Activation
• Entire/widespread system capacity exceeded

Activation is a collaborative process among the CMO, PHO, EMS Medical Director, and the Operational Core Group. The final activation authority is the CMO, or designee. These elements are part of the decision process:

- EMS/PHS metric triggers
- Local events with health system impacts
- Operational Core Group recommendation
- Recommendation of the Public Health Officer (PHO)/EMS Medical Director

Please refer to the plan document for full details.

County of San Diego Actions		Completed (Date/time)
Level 5 Baseline Monitoring	Weekly summarized reporting of: • 911 medical call volume acquired from integrated Public Safety Answering Point (PSAP) data • Emergency department Transfer of Care times (both county-wide and by County-defined regions) • Emergency department bypass hours • Trends for Prehospital Provider Impressions derived from Base Hospital Records and Prehospital Care Reports • Sentinel event and ED reports made to County Emergency Medical Services (EMS) or Public Health Services (PHS) officials • Updates to earlier sentinel reports • Hospitals deploying space conversions or using alternate care sites (reported by the time/date the permit request is made to CDPH) • Hospitals with activated internal surge plans as recorded in the LEMSIS hospital status reporting platform • Weather events, advisories, and air quality reports	
Level 4 Enhanced Surveillance	Activate Operational Core Group upon the CMO's direction	
	Issue annual influenza season-targeted public messaging pending recognition of Influenza-Like Illness (ILI) activity in the community (e.g., wash your hands, obtain vaccinations)	
	Prepare and/or provide public messaging, as appropriate to the situation	
	Solicit reports from fire, EMS, hospital, and/or other health system organization administrators for: • Staffing shortages/unable to report to work (i.e., infrastructure damage inhibiting transportation) • Sick calls (compared to expected sick call rate for the organization) • Other sector-specific reports as situationally appropriate	
	County Epidemiology team will monitor, track, and report: • Provider impression trends • Bypass hour trends (regional and county-wide) • TOC/PSAP metric trends (regional and county-wide) • Relevant syndromic, environmental, or situational updates • Information in Influenza Watch or other syndromic reports	
	Alert clinics to develop clinical criteria for triaging patients to the appropriate level of care • This may include telephonic visits with prophylactic and/or therapeutic pharmaceutical prescriptions as the situation dictates	

	Broadly distribute communications including, but not limited to, PHO orders, relevant best practices, and public health and preparedness response advisements. Best practices may include initiating workforce respirator fit tests, providing personal protective equipment recommendations, confirming or updating vaccination status, and revising cleaning/decontamination procedures	
	CMO, PHO, and EMS Medical Director coordinate communications for specific patient screening criteria, if appropriate to the situation (e.g., travel history, exposure management)	
	CMO, PHO, and EMS Medical Director may consider California Health Alert Network (CAHAN) and/or Medical Health Operational Area Coordination (MHOAC) report distribution	
	EMS Medical Director may direct County EMS-PHPR Duty Officers to: • Initiate LEMSIS hospital status platform alerts requesting EDs provide relevant information as needed (e.g., surge plans, space conversions) • Contact CDPH Licensing and Certification Program District Office, County PHS, or other partners to provide situational awareness updates or to call for expedited request processing for County partners	
Level 3	EMS Epidemiology s issue daily reports to the Operational Core Group	
	Alerts may be issued for hospital status reporting platform-tracked data, as appropriate: • Daily bed counts • Daily ED boarding • Daily ventilator, critical care supplies, personal protective equipment (PPE) stock, and other event-dependent specific supply levels	
	EMS Medical Director may: • Implement twice-daily hospital status reporting platform counts • Contact California Emergency Medical Services Authority, CDPH, CDPH Licensing and Certifications staff, and other partners to provide situational awareness updates • Engage Operational Group for regular meetings • Coordinate with CDPH and County medical leadership to develop patient screening criteria • Coordinate with PHS/MCSD leadership for public messaging distribution • Mandate EMS staff wear event-specific PPE • Develop/adopt patient screening tools, situation updates, CDC/CDPH directives, and other authoritative guidance documents, and/or best practice decontamination procedures)	

	HHSA PIO and County Communications Office, partner agencies, medical groups, and health plans will issue public communications
	  • These messages will be distributed through social media, traditional media, and other information systems
	  • The message may include a tone of urgency, instructions on the proper use of resources, or other critical updates and recommendations

	County EMS and PHS shall:
	  • Initiate requests regulatory relief, waivers, or other special exceptions to baseline County authorities, in consultation with County counsel, as indicated
	  • Ensure County logistic support is deployment-ready
	  • Consider activating backup duty officer to monitor hospital status reporting platform, PSAPs and/or other communications/system portals
	  • Establish communications with local CDPH office to provide situational awareness
	  • Consider issuing supplementary radios to Base Hospitals (BH) to increase Mobile Intensive Care Nurse (MICN) medical control availability
	  • Distribute relevant guidance directly to providers through LEMSIS/distribution groups
	    o This guidance may include patient screening tools, situation updates, CDC/CDPH directives, and/or best practice decontamination procedures
	  • Consider CAHAN development/distribution and/or MHOAC reporting
	  • Open County EOCs, if not yet done
	  • Engage Chief Pharmacy Officer for medication tracking/regional pharmaceutical availability status
	  • Establish dialogue with military and Veterans Affairs personnel for resource access assessment for non-military patients/supplies/support

Level 2 Actions	EMS Medical Director may consider:
	  • Implementing closest appropriate destinations and/or suspend the medical home directive
	    o May be guided by event-specific patient presentation parameters
	  • Instituting radio report changes
	    o Adopting an abbreviated reporting format to maximize airtime availability while maintaining coordinated destination decisions
	  • Issuing supplementary radios to BHs to increase MICN availability, if not previously done
	  • Implementing a rotating receiving ED policy
	  • Implementing Annex D and/or E, if appropriate

	• Engaging Expanded Operational Group for regular meetings • Engaging receiving EDs to accelerate EMS turnovers • Authorizing alternate transportation providers (e.g., transit services, non-emergency transportation providers) • Contacting CDPH to request assistance for space conversions and tent deployments • Issuing daily reports to the Operational Group, hospitals, and EMS administrators
	County CMO, PHO, and EMS Medical Director or their designee may consider: • Increasing messaging frequency, urgency of tone, and directives o This may include directives to self-isolate if ill, appropriate 911 use, or other messaging as appropriate • CAHAN alerting • MHOAC alerting • Placing Medical Reserve Corps on standby • Preparing Public Health Emergency Orders • Extending County clinic hours • Promoting community primary care provider use of telephone and other remote triage schemes and tele-visits using nationally-recognized triage protocols and community emergency standards • Assigning licensed County medical staff to clinical services • Assessing the need for alternate care sites • Requesting military and/or VA medical facilities to accept non-military/VA patients • Preparing requests for nurse ratio relaxation and alternate destination waivers in concert with a Governor's Standby Order for Statutory Suspension
Level 1 Actions	County will consider: • Proclaiming Local Health Emergency • Waiving base hospital contact for non-transports • Issuing non-transport standing order criteria • Implementing Annex D and/or E • Deploying Medical Reserve Corps • Activating alternate care site(s) • Opening EOCs • Requesting mutual aid resources from state, federal, and/or military sources

All-Hazard Health Services Capacity Management Plan
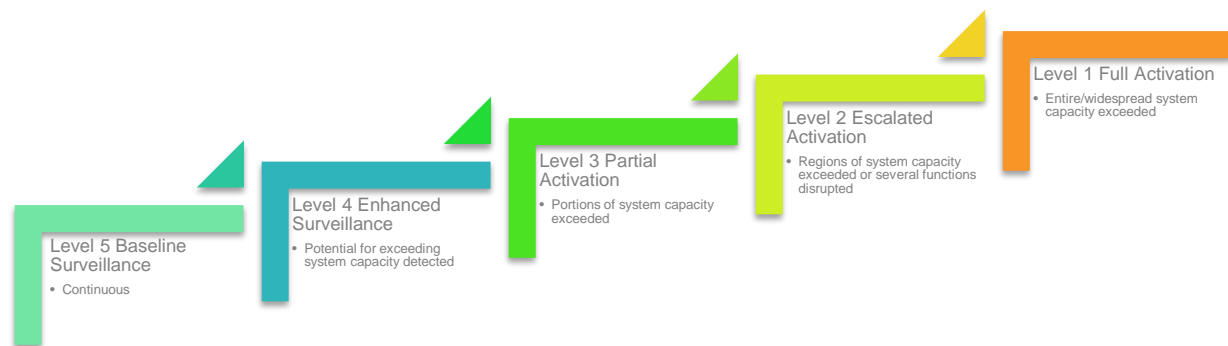## 2018 – 2019
Quick Reference Guide – Fire/EMS

Level 5 Baseline Surveillance is the continuous system monitoring performed by County staff. The surveillance process includes analysis with weekly reporting.

Level 4 Enhanced Surveillance monitors Health System stress through specific trended metrics, designed to detect a developing situation before it becomes a crisis.

Level 3 Partial Activation is linked to the first significant system actions to allow health services partners to collaboratively address demands exceeding portions of the health system capacity. The Level 3 operational period will be 7 days from the last day with above range measurements unless a decision to deactivate sooner is made.

Level 2 Escalated Activation addresses situations where regions of the health system are unable to meet demand or where several functions are disrupted. The Level 2 operational period will be 7 days from the last day with above range measurements unless a decision to deactivate sooner is made.

Level 1 Full Activation will be instituted for widespread system overload requiring resources from outside the area. The Level 1 operational period will be 7 days from the last day with above range measurements unless a decision to deactivate sooner is made.

Actions to take prior to Plan activation:	Relevant information to report to PHPR-EMS Duty Officer:
• Review disaster/surge plans • Encourage staff to diligently record TOC times • Encourage staff immunizations	• Supply/logistics concerns • Staffing concerns

Please refer to the full plan document for more details.

Fire/EMS Actions Fire and EMS agencies may consider:		Completed (Time/Date)
Level 3 Actions	Staffing additional units or altering shift deployment • This may include all county Advanced Life Support (ALS), First Responder (FR), and Basic Life Support (BLS) agencies	
	Encouraging dispatch centers to augment numbers of call-taking staff	
	Instituting medical dispatch severe respiratory illness or other event-specific triage criteria, if appropriate to the situation	
	Directing dispatch centers to alert EMS crews for potential PPE needs, if appropriate to the situation	
	Encouraging or requiring, when mandated, immunizations for staff	
	Recommending BLS transport to non-Basic Emergency Facilities (BEF) from 911 scenes for low-acuity patients, if authorized by the EMS Medical Director	
	Discourage non-essential family members/visitors/riders from accompanying ill or potentially infectious patients to ED to avoid further exposures, if appropriate to the situation	
	Recommending surgical masks and other relevant infectious precautions for all transported patients, if appropriate for the situation	
	Communicating capacity situation with on- and off-duty staff • Prepare for increased demand • Encourage off-duty staff to have a personal/family/pet preparedness plan (e.g., identify sources of personal medications, fuel, food, child/family/pet care)	
	Providing logistics to support longer shift durations (e.g., food, child/family/pet care)	
	Requesting PPE stock monitoring reporting on a daily or weekly basis	
	Being ready to perform prompt shelter/space conversion inspections	
	Preparing public safety resources for support functions (e.g., high-risk entry or transport teams, decontamination resources)	

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Level 2 Actions	Encouraging staffing deployment extension (e.g., longer shifts, callbacks, temporary staffing)	
	Implementing alternate destinations/alternate transportation methods (e.g., using BLS or other resources to transport low-acuity patients to non-BEF destinations)	
	Providing J-I-T training for alternate transportation methods (e.g., requesting nontraditional transport criteria and process)	
	Permitting ALS units to deliver radio reports to satellite facilities for low acuity patients using BLS channels, if authorized by the EMS Medical Director	
	Encouraging non-ALS response for BLS triaged patients from PSAPs	
	Consider implementing stacked call dispatching/non-traditional EMS transport • Potential resource assignment tactics include: ○ Holding low acuity calls ○ Dispatching EMS providers in a non-traditional EMS vehicle (e.g., van, shuttle) ○ Implementing resource assignments to evaluate and transport two or more callers from nearby locations	
	Identify Disaster Medical Supply Units/County stock for EMS unit restocking	
Level 1 Actions	Instituting closest appropriate destinations – suspending the medical home directive upon EMS Medical Director authorization	
	Instituting alternate destinations/alternate transportation methods (e.g., BLS transportation for patients that would have normally received an ALS transport or transporting BLS patients to nontraditional destinations)	
	Implementing stacked call dispatching/non-traditional EMS transport	

2019-2020 Capacity Plan   lix

All-Hazard Health Services Capacity Management Plan
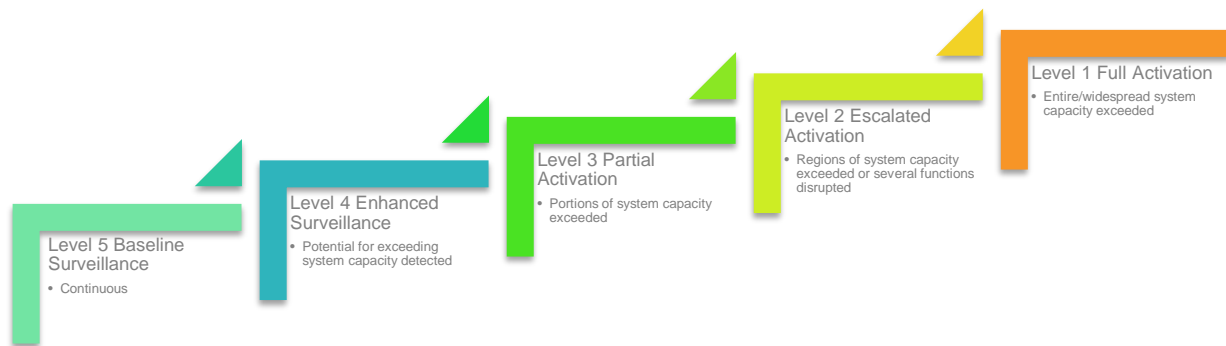# 2018 – 2019

Quick Reference Guide – ED/Hospital

Level 5 Baseline Surveillance is the continuous system monitoring performed by County staff. The surveillance process includes analysis with weekly reporting.

Level 4 Enhanced Surveillance monitors Health System stress through specific trended metrics, designed to detect a developing situation before it becomes a crisis.

Level 3 Partial Activation is linked to the first significant system actions to allow health services partners to collaboratively address demands exceeding portions of the health system capacity. The Level 3 operational period will be 7 days from the last day with above range measurements unless a decision to deactivate sooner is made.

Level 2 Escalated Activation addresses situations where regions of the health system are unable to meet demand or where several functions are disrupted. The Level 2 operational period will be 7 days from the last day with above range measurements unless a decision to deactivate sooner is made.

Level 1 Full Activation will be instituted for widespread system overload requiring resources from outside the area. The Level 1 operational period will be 7 days from the last day with above range measurements unless a decision to deactivate sooner is made.

Level 5 Baseline Surveillance
• Continuous

Level 4 Enhanced Surveillance
• Potential for exceeding system capacity detected

Level 3 Partial Activation
• Portions of system capacity exceeded

Level 2 Escalated Activation
• Regions of system capacity exceeded or several functions disrupted

Level 1 Full Activation
• Entire/widespread system capacity exceeded

Relevant information to report:	
Elements to report in LEMSIS ResourceBridge:	Elements to report to PHPR-EMS Duty Officer:
- Internal/facility surge plan activations - Program Flexibility waiver requests - Bed counts, if requested	- Supply/logistics concerns - Staffing concerns

Please refer to the full plan document for more details.

Hospital/ED Actions Acute care hospitals, emergency departments, and base hospitals may consider:		Completed: (Date/Time)
Level 3 Actions	Staffing additional MICNs at peak periods at base hospitals • May split MICNs to monitor a single medical control channel as a split team, with each of the two ALS medical control radio systems monitored by a dedicated MICN	
	Deploying additional ED staff focused on triaging arriving EMS patients to improve ambulance back-to-service times	
	Monitoring the LEMSIS hospital status platform for incoming units	
	Reporting internal hospital surge plan implementation and space conversion requests in the LEMSIS hospital status reporting platform	
	Converting existing outpatient beds to inpatient beds	
	Reporting PPE stock, if requested	
	Encouraging throughput: • Direct non-EMS patients with low acuity to non-ED destinations, if authorized • Expedite discharges • Expand the capacity of traditional facilities	
	Communicating capacity situation with staff: • Prepare for increased demand • Encourage off-duty staff to prepare at home (e.g., fuel, food, child/family care) • Agency to prepare logistics to support longer duration shifts (e.g., food, child/family/pet care)	
	Encouraging medical logistics preparation (e.g., treatments and testing supplies)	
	Encouraging early contact with jurisdiction fire inspectors for anticipated hospital tent deployments	
	Encouraging deploying increased housekeeping staff to increase bed turnover	
	Enhancing staff and visitor handwashing procedures	
	Posting influenza/situational awareness fliers for visitors	
	Suggesting non-patient visitors delay visits until well and/or keep children outside of healthcare buildings	
	Issuing phone messaging/patient portal messaging to plan-covered patients with instructions on when to use advice lines, primary care, the ED, or to call 911	
	Requesting staff immunize patients seen at all clinics, dialysis centers, and long-term care facilities	
	Activating hospital command centers (if not done already), link to County EOCs	

Level 2 Actions	Encouraging staffing deployment extension through increased shift length, callbacks, and/or temporary staffing	
	Calling in extra MICNs to staff BLS radio channels	
	Cooperating and coordinating with neighboring facilities, clinics, and tertiary care for capacity/throughput resources	
	Encouraging alternate staffing sources for deployment	
	Opening clinics, care centers, and outpatient facilities to the licensed maximum	
	Engaging non-clinical staff (e.g., clerical, administrative) for clinical support	
	Identifying Disaster Medical Supply Units/County stock for logistic support	
	Accepting stable patients in the waiting room, after EMS handover to ED personnel, allowing EMS resources to return to service more quickly	
	Implementing phone calls, emails, and messaging via patient portals to patients with immunization locations, local alternates to seeking ED care, and other situation-appropriate advisements	
	Engaging partner health systems to encourage them to delay or suspend patient reunification	
	Activating hospital command centers (if not already done), link to County EOCs	
	Engaging alternate staffing providers/deployment options	
Level 1 Actions	Rescheduling elective procedures	
	Activating hospital command centers (if not done already), link to County EOCs	

All-Hazard Health Services Capacity Management Plan
2018 – 2019
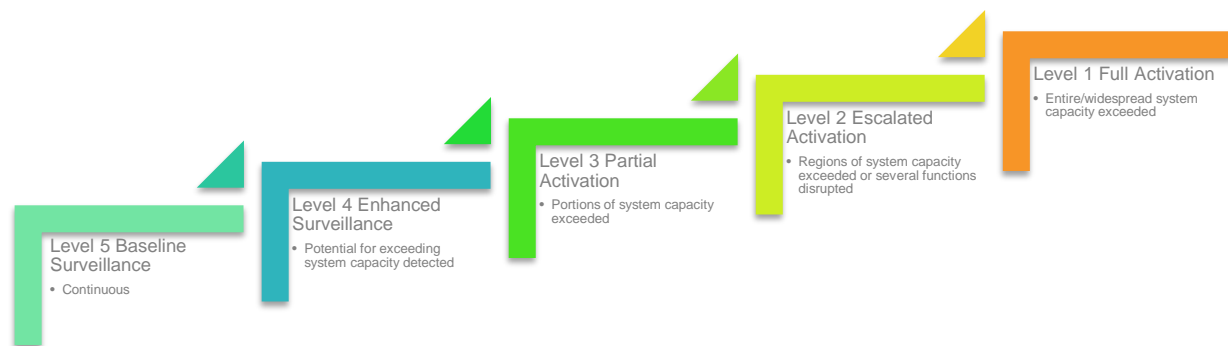### Quick Reference Guide – Health Plans

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Actions to take prior to Capacity Plan activation:	Relevant information to report to PHPR-EMS Duty Officer:
• Review disaster/surge plans • Update communications/phone trees	• Patient messaging updates • 3S (Staff/Stuff/Structure) concerns

Please refer to the full plan document for more details.

Health Plan Actions		Completed (Date/time)
Health plans covering county residents may consider:		
Level 3 Actions	Issuing phone/patient portal messaging to plan-covered patients with directions for appropriate use of emergency services, including information regarding when to access advice lines, primary care, and/or 911	
	Requesting staff immunize patients seen at all clinics, dialysis centers, long-term care facilities	
	Requesting plan-connected clinics and outpatient facilities extend hours of operation	
	Requesting plans and pharmacy benefit managers to release restrictions (e.g., prior authorizations, refill limits, quantities, generic substitution) for medications that may be needed to treat patients affected by these emergencies	
Level 2 Actions	Implementing phone calls, emails, and messaging via patient portals to patients with immunization locations, local alternates to seeking ED care, and other situation-appropriate advisements	
	In concert with contract or affiliated facilities, opening clinics, care centers, and outpatient facilities to the licensed maximum	
	Requesting plans and pharmacy benefit managers to release restrictions (e.g., prior authorizations, refill limits, quantities, generic substitution) for medications that may be needed to treat patients affected by these emergencies	
	Requesting plans and pharmacy benefit managers to speed mailed prescriptions or use courier services to deliver medications	
	Expanding plan networks on a temporary basis	
Level 1 Actions	Removing release restrictions (e.g., prior authorizations, refill limits, quantities) for medications that may be needed to treat patients affected by these emergencies	
	Issuing phone messaging/patient portal messaging to plan-covered patients and members with updates, education, and/or directives	

All-Hazard Health Services Capacity Management Plan
2018 – 2019

Quick Reference Guide – Community Health Centers, Outpatient Clinics, Urgent Care Centers, Skilled Nursing Facilities, and Long-Term/Tertiary Care
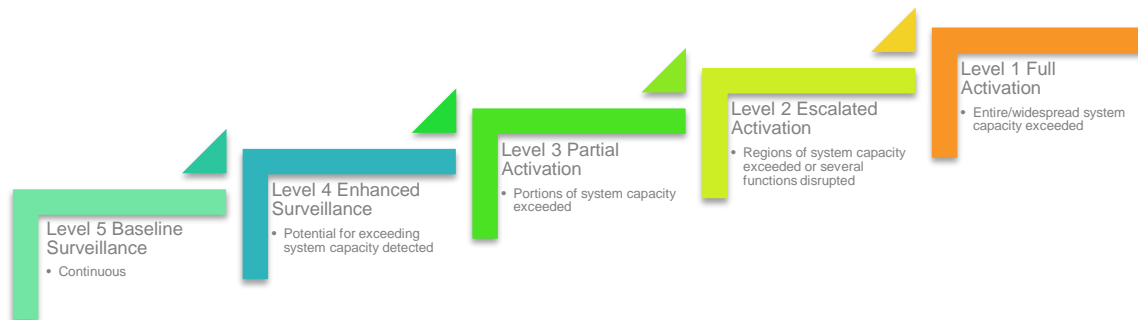
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Level 1 Full Activation
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Actions to take prior to Plan activation:	Relevant information to report to PHPR-EMS Duty Officer:
• Review disaster/surge plans • Update communications/phone trees • Encourage staff immunizations	• Supply/logistics concerns • Staffing concerns

Please refer to the full plan document for more details.

Community Health Centers, Outpatient Clinics, Urgent Care Facilities, Skilled Nursing Facilities, and Long-Term/Tertiary Care: Community health centers, outpatient clinics, urgent care centers, skilled nursing/rehabilitation facilities, and long-term care facilities may consider:		Completed (Date/time)
Level 3 Actions	Communicating situational awareness information and encouraging personal and family preparedness for staff that may be requested to report to work	
	Reviewing the facility's surge and disaster plans	
	Enhancing staff and visitor handwashing procedures	
	Posting influenza/situational awareness fliers for visitors	
	Suggesting non-patient visitors delay visits until well and/or prohibit children from entering healthcare buildings	
	Deploying increased housekeeping staff to increase patient space/beds/rooms turnover	
	Requesting staff immunize patients seen at all clinics, dialysis centers, and long-term care facilities, as appropriate	
	Requesting clinics and outpatient facilities extend hours of operation	
	Reporting 3S elements (Stuff, Staff, Structure) to HSCTF representatives, as appropriate	
Level 2 Actions	Encouraging staffing deployment extension through increased shift length, callbacks, and/or temporary staffing	
	Cohorting patients, if possible and/or appropriate for the situation	
	Encouraging deploying supplemental housekeeping staff to increase patient space turnover	
	Requesting staff immunize patients seen at all clinics, dialysis centers, and long-term care facilities	
	Requesting clinics and outpatient facilities extend hours of operation	
	Reporting 3S Surge Capacity elements (Stuff, Staff, Structure) to the HSCTF, as appropriate	
Level 1 Actions	Issuing phone messaging/patient portal messaging to patients and family members with updates, education, and/or directives, as appropriate	
	Reporting the organization's ability to sustain operations through HSCTF representatives	

22nd Annual
EMS for Children
Educational Forum

November 8, 2019

8:00 a.m. — 3:00 p.m.
doors open at 7:30 a.m.

NorthBay Healthcare Green Valley Administration Center

4500 Business Center Drive
Fairfield, CA 94534
Continental breakfast and lunch will be provided

REGISTER:
https://2019emscforum.eventbrite.com

COST:
EMT: $80

Paramedic: $90

RN/MD: $100

Other: $80

*There will be a $20 increase for all registrations after October 26th

**Cash or check will not be accepted at the door. Credit Cards only **

CONTINUING EDUCATION

Six (6) BRN and EMS credits offered

BRN provider #1574   EMT & EMT-P provider #94-0001

AGENDA:

Pediatric Trauma
Dr. James Holmes

Human Trafficking
Dr. Julia Magana

Pediatric Skills
Dr. Joelle Donofrio
Dr. Shira Schlesinger

Infectious Diseases/Measles
Dr. Dean Blumberg

Camp Fire
John Lord

For more information contact:
Heidi.Wilkening@emsa.ca.gov

EMSC
Emergency Medical
Services for Children

EMSA
EMERGENCY MEDICAL SERVICES AUTHORITY
• CALIFORNIA •

EMS/Trauma Committee
2019 Roster

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10/9/2019

EMS/T Committee Hospital Representation
BY COUNTY and HOSPITAL TYPE
As of June 2019

HOSPITAL/HEALTH SYSTEM TYPES	
Free-Standing Facility	4
Hospital System	11
Small/Rural Facility	1
University/Teaching Facility	4
TOTAL COMMITTEE REPRESENTATION	15

Denotes number of hospitals/health systems represented within that county.

CHA Member/ED Breakdown
10/9/2019

ED TYPE BY MEMBER:

Pam Allen, RN, MSN, CEN	Redlands Community Hospital	Emergency Services
Carla Spencer, MSN, RN, CFRN	Salinas Valley Memorial Healthcare System	Emergency Services
Cheryl Heaney, DNP, RN	St. Joseph's Medical Center	Emergency Services
Christopher Childress, BSN, RN, CEN	Hoag Memorial Hospital Presbyterian	Emergency Services
Claude Stang, RN, BSN, MA, CEN	Cedars-Sinai Medical Center	Emergency/Trauma
Connie Cunningham, RN, MSN	Loma Linda University Health	Emergency/Trauma
Daman Mott	John Muir Medical Center	Emergency Services
Fred Hawkins	Ridgecrest Regional Hospital	Emergency/Trauma
Jackie Saucier, PhD, MBA, MSN	Palomar Medical Center Poway	Emergency Services
Jason Zepeda	Hoag Memorial Hospital Presbyterian	Emergency Services
Karen Sharp, RN, MSN	Saddleback Medical Center	Emergency Services
Marlena Montgomery, MBA, MSN, RN, CEN	Sharp Memorial Hospital	Emergency/Trauma
Melanie Gawlik, RN, MSN	Scripps Memorial Hospital La Jolla	Emergency/Trauma
Neal Cline, RN, JD, CFRN	Enloe Medical Center - Esplanade Campus	Emergency/Trauma
Rose Colangelo, RN, MSN, CEN	Scripps Memorial Hospital La Jolla	Emergency/Trauma
Rupy Sandhu	UC Davis Medical Center	Emergency/Trauma

EX-OFFICIO COMMITTEE MEMBER:

Bruce Barton	Riverside County EMS Agency
Chi Perlroth, MD, FACEP	CAL ACEP
Daniel Smiley	California EMS Authority
Eric Morikawa	California Department of Public Health
Heather Venezio, RN, MS, CEN TCRN	TMAC
James Pierson	Medic Ambulance
Lawrence Stock, MD, FACEP	Antelope Valley Hospital
Ron Smith, LVN, EMT1A	California Department of Public Health
Ross Fay	California Association of Air Medical Services
Susan Smith, RN	CalENA

CHA/REGIONAL STAFF

BJ Bartleson, MS, RN, NEA-BC	California Hospital Association
Judith R. Yates, BSN, MPH	Hospital Association of San Diego and Imperial Counties
Keven Porter, RN, BSN, MS	Hospital Association of Southern California
Barbara Roth	California Hospital Association

STATE REPRESENTATION

Northern California	**5**
Southern California	**10**

CHA Emergency Services/Trauma Committee Goals and Objectives, 2019-2020

CHA EMS/T Committee Mission

The mission of the CHA EMS/Trauma Committee is to represent CHA members that provide emergency medical and or trauma services in the state of California, and serve in an advisory capacity to CHA Board of Trustees regarding EMS/Trauma member needs, policy and advocacy to promote an optimally health society.

Goals and Objectives 2019- 2020

1. Develop policy, tools, information and strategies to support emergency department and trauma services of the future that enhance quality patient care.
   a. Connect local and regional best practices to produce statewide strategies.
   b. Explore new technologies and applications to streamline and improve emergency and trauma care practices.
   c. Continue to monitor APOT and work collaboratively with prehospital providers on performance improvement and reengineering efforts, including updated tools for members.

2. Develop data performance measures for statewide assessment of services.
   a. Use performance measures, technology and new modalities to assess ED crowding and strategize solutions across systems of care.
   b. Develop both provider and consumer education vehicles to improve ED crowding.
   c. Develop public policy and advocacy strategies to address ED crowding, particularly alternate destination policies for behavioral health patients.

3. Implement a successful annual ED conference that assists members to become agents of change during health care reform.
   a. Use state and national experts that emphasize a collaborative, multi-stakeholder level of involvement.
   b. Focus on member evidence based practices that are affecting change.

4. Represent Trauma issues on the EMSA trauma regulatory review task force.
   a. Appoint CHA EMS/T member to head the trauma subcommittee workgroup and present issues at the EMSA trauma task force.
   b. Assist with funding and solutions to maximize trauma care and provisions across the state.
   c. Select CHA EMS/T member to represent EMSC issues and report to the committee

5. Understand HIE systems and how they will benefit transitions of care for patients between systems of care.
   a. Work closely with HIE networks to understand connections and linkages to improved care transitions.
   b. Work with EMSA on HIE prehospital pilot work.

1215 K Street, Suite 800, Sacramento, CA 95814 • *Telephone:* 916.443.7401 • *Facsimile:* 916.552.7596 • www.calhospital.org
Corporate Members: Hospital Council of Northern and Central California, Hospital Association of Southern California, and Hospital Association of S an Diego and Imperial Counties

Page 346 of 357

6. Closely monitor federal and state legislation and health care reform changes and their effect on emergency services and systems of care.
    a. Continue to monitor changes in the financial landscape that have a direct effect on emergency department visits.
    b. Monitor statutory and regulatory changes affecting hospital emergency /trauma services.

GUIDELINES FOR THE
CALIFORNIA HOSPITAL ASSOCIATION'S
EMS/TRAUMA COMMITTEE
Updated
09/23/15

I.   NAME

The name of this committee shall be the CHA EMS/Trauma Committee.

II.   MISSION

The EMS/Trauma Committee represents CHA members that provide emergency medical and/or trauma services in the State of California, and serves in an advisory capacity to the CHA Board of Trustees regarding EMS/Trauma member needs, policies and legislation.

Recognizing the diverse organizations and providers that work in emergency systems across the state, the mission of the committee also includes representation from diverse multidisciplinary health care organizations and associations that include professional associations, regulatory agencies, emergency services organizations, prehospital providers and others, that promote quality emergency services in the state of California.   This multidisciplinary group will act as a collaborative source of emergency services expertise, providing a venue for the coordination of emergency and trauma services to advocate for the highest standards of emergency trauma care services across the state.

The purposes of the Committee shall be:

1. to serve as a forum for all CHA members and associated groups interested in EMS/Trauma to receive and exchange information, adopt policies and positions, guide management, adopt strategies and serve as the primary public policy arm of CHA for emergency medical services and trauma issues;
2. to provide CHA member EMS/Trauma providers with a statewide structure dealing with the issues important to their interests;
3. to create a representative form of leadership which is based on participation of all its members;
4. to provide direct input to the CHA Board of Trustees; and
5. to provide a unified voice on behalf of CHA members, taking into account the multiple diverse organizations that interact with hospital emergency/trauma services

III.   COMMITTEE

The committee shall consist of a maximum of 22 representatives from California hospital/health system organizations, and organizations with related interests.

A.   MEMBERSHIP

1.   Membership on the CHA EMS/Trauma Committee shall be based upon membership in

CHA, and reserved for those members.
2. The Committee shall consist of various representatives from large hospital systems, public institutions, private facilities, free-standing facilities, small and rural facilities, university/teaching facilities, specialty facilities and a representative from a professional group specializing in EMS/Trauma issues.
3. Membership by EMS related organizations will be considered Ex-officio members. Ex-officio members will be determined by committee input and CHA determination.
4. Appointment of members to the Committee will follow the CHA Guidelines for Committee Membership.

B. TERMS OF THE COMMITTEE MEMBERS

1. As members leave the Committee, vacancies shall be filled. It is understood that a member forfeits his/her seat if they no longer serve in the capacity, or represent a facility that is not a CHA member.
2. Committee members with specialized skills, knowledge, or professional associations may serve on the committee as ex-officio members. Ex-officio members are not subject to the above terms. These determinations shall be made by CHA.
3. Provider representatives who transition from one position to another are welcome to attend committee meetings during their transition; however, this should not exceed two consecutive meetings.
4. Provider representatives who misrepresent their organization's position are subject to review and dismissal from the committee.

C. COMMITTEE MEETINGS

1. Meetings of the Committee shall be held quarterly.
2. Provider representatives may send an appropriate substitute to the meetings when they are unable to attend. To maintain continuity for Committee meetings, this should be used sparingly, not to exceed two consecutive meetings.
3. Three consecutive unexcused absences by a Committee member may initiate a review by the Chair and CHA staff for determination of the Committee member's continued service on the Committee.
4. Special meetings may be scheduled by the Chair, majority vote or CHA staff.
5. Membership is based on one's ability to be physically present at quarterly meetings and conference call only as needed for emergency situations.

D. VOTING

1. Voting rights shall be limited to members of the Committee, and each member present shall have one vote. Voting by proxy is not acceptable.
2. All matters requiring a vote of the Committee must be passed by a majority of a quorum of the Committee members only at a duly called meeting or telephone conference call.

E. QUORUM

Except as set forth herein, a quorum shall consist of the majority of the Committee

membership in attendance.

F.   MINUTES

Minutes of the Committee shall be recorded at each meeting, disseminated to the membership, and approved as disseminated or as corrected at the next meeting of the Committee.

IV.   OFFICERS

The officers of the Committee shall be the committee chair, co-chair, and CHA staff. Except as provided herein, the chair and co-chair shall be elected by the Committee for a two-year term.

The chair officers vacate their Committee positions upon election, and their seats shall be filled through the nominating and election process. The past-chairs will be invited by the Committee to serve as ex-officio members.

Should a chair or co-chair vacate his/her position prior to the end of the term, a nominating committee will convene to select a replacement, and assume a two-year term of office.

V.   COMMITTEES

For special and specific purposes, the chair or CHA staff may appoint a committee or ad hoc on task force. Membership may be expanded to non-members of the Committee.

VI.   GENERAL PROVISIONS

The strategic plan defining the goals, objectives, and work plans shall be developed annually by the CHA staff and approved by the Committee. Quarterly updates and progress reports shall be completed by the Committee and CHA staff.

Staff leadership at the state level shall be provided by CHA with local staff leadership provided by HCNCC, HASD&IC, and HASC.   The primary office and public policy development and advocacy staff of the Committee shall be located within the CHA office.

The Committee staff shall be an employee of CHA.

VII.   AMENDMENTS

These Guidelines may be amended by a majority vote of the members of the Committee at any regular meeting of the Committee.

VIII.   LEGAL LIMITATIONS

Any portion of these Guidelines which may be in conflict with any state or federal statutes or regulations shall be declared null and void as of the date of such determination.

Any portion of these Guidelines which are in conflict with the Bylaws and policies of CHA shall be

considered null and void as of the date of the determination. Information provided in meetings is not to be sold or misused.

IX.   CONFIDENTIALITY FOR MEMBERS

Many items discussed are confidential in nature, and confidentiality must be maintained. All Committee communications are considered privileged and confidential, except as noted.

X.   CONFLICT OF INTEREST

Any member of the Committee who shall address the Committee in other than a volunteer relationship excluding CHA staff and who shall engage with the Committee in a business activity of any nature, as a result of which such party shall profit pecuniarily either directly or indirectly, shall fully disclose any such financial benefit expected to CHA staff for approval prior to contracting with the Committee and shall further refrain, if a member of the Committee, from any vote in which such issue is involved.

MEETING MINUTES
June 5, 2019 / 10:00 a.m. – 4 p.m.

California Hospital Association, Sacramento

Members Present: **Pam Allen, Christopher Childress, Rose Colangelo, Daman Mott, Chi Perlroth, Jackie Saucier, Dan Smiley, Ron Smith, Susan Smith, Heather Venezio, Jason Zepeda**

Members on Phone: Connie Cunningham, Marlena Montgomery, Rupy Sandhu, Karen Sharp, Carla Spencer

Staff: **BJ Bartleson, Gail Blanchard-Saiger, Megan Howard, Alyssa Keefe, Sheree Lowe, Scott Masten, Keven Porter, Barb Roth, Maria Sperber, Judith Yates, Justin Ziombra**

I.   CALL TO ORDER/INTRODUCTIONS

The meeting was called to order at 10:09 am.
Committee recommended to update the Guidelines to reflect changes in meeting timing.

> ➢ *ACTION: CHA send survey to the committee for feedback and recommendations about changes in meetings.*
> ➢ *ACTION: CHA to seek new members across the state.*

II.   REVIEW OF PREVIOUS MEETING MINUTES

Draft minutes from March 6, 2019 meeting provided for review and approval.

> ➢ *ACTION: Please review and advise approval or comments.*

Minutes approved as submitted.

III.   <u>BUSINESS</u>

A.   Data Analytics and AB 774, Reyes, D-Inland Empire (Bartleson/Masten/Ziombra)
The goal is to widen the discussion on ED delays, particularly in the media, about what is happening in the ED. HQI puts together a report: http://www.hqinstitute.org/numbers. Additional measures are needed, such as activity in emergency care and the community, that can be observed and measured across the state. The last 4 reporting periods show that California is consistently above the national average in all ED measures. Risk adjustment is a challenge. Slightly less than half of those visiting the ED in CA are unique patients (trackable)– based upon discharge data tracked within a year and across years. Mr. Zepeda reported that he is also looking at revisits to the ED without admission. In addition, Mr. Masten is looking at frequent visitors (more than 5 visits).

Affecting the length of stay metric is the problem of patients that do not have discharge plans – waiting for discharge to SNF, etc. or they are homeless with no place to go. This is a

10/8/2019 11:05 AM

symptom of a larger community-related problem. Also, the problem within the hospitals about "decision to admit" data.

Many hospitals report every day to their LEMSA 4 data points– 1) number of patients medically boarded, 2) total census, 3) psychiatric boarding, and, 4) ICU boarding. The definitions being used are important as all groups need to use the same definitions. Reddinet can be used for this purpose. The state requires an all-state bed count.

EDIE – Collective Medical Technologies – gathers data more frequently than what OSPHD releases. Gabe Waters will be at the next meeting to advise which hospitals are participating in their system.

CHA HQI is currently working on historical information from OSHPD. They are also working on getting direct submissions from hospitals to OSHPD to get real-time data. This would require hospitals to submit Mercal data to HQI at the time it is submitted to OSHPD. There would be no additional cost to hospitals as the data is already collected, just needing a couple of additional computer clicks to share the data with HQI.

Dr. Perlroth advised that AB 744 bill, which Cal ACEP sponsored, can be used to identify which EDs are doing it well and create best practices.   The current focus on behavioral health and addiction related patient needs makes collecting this information timely. More inpatient units are not necessarily the answer to the problem. If funds are invested to collect all this information for OSPHD, what will be the ROI – will it be valid and reliable? The committee members questioned the resources hospitals will use to collect additional OSHPD information and will the data collection be done in a timely manner with a definitive return on investment. Mr. Masten suggested that making AB 744 optional might be more palatable in getting hospitals to participate, perhaps using it as leverage with the legislature to get additional funding. CHA may offer this to CalACEP as an amendment.

Mr. Ziombra reported that the social determinant (Z) codes are ones for which the coders do not need a provider to assign. These codes are being used very inconsistently by hospitals.

Ms. Sandhu reported that they have seen a significant increase in pediatric psychiatric visits. The patients can be in the ED for weeks because they have no place to go. Ms. Sharp advised that Saddleback is working with the school districts which are obligated by law to assist. The school districts get funding to help with getting children back to school and getting the student to the right facility. This

➢ *ACTION: CHA will consider recommending amendments to AB 744 on voluntary versus mandatory hospital participation*

B. Ambulance Patient Offload Time (APOT) and Ambulance Interfacility Transfer Issues (Bartleson/Masten/Ziombra)
Mr. Smiley reported that EMSA is adding data people. Collaboration and consistency are critical to make sure everyone is on the same page as far as data collection. Data is currently being submitted on a spreadsheet to EMSA. In the future, data will be mined from the EMSA system to allow access to more real-time data. EMSA is aware of the methodology issue and the need to research benchmarks, then go to LEMSAs to investigate.

According to statute, EMSA can set the methodology. They will determine the elements to ensure the methodology.

Ms. Bartleson suggested that CHA do a webinar on transfer of care with Ms. Allen, Ms. Colangelo and Ms. Montgomery offering to assist. The webinar could also include representation from EMSA. It would offer best practices from our partners to make sure transfer of care is consistent. It is important to illustrate successful programs that the hospitals are already using so that the information is valuable for ED staff.

> *ACTION: CHA Webinar on transfer of care (Ms. Allen, Ms. Colangelo, Ms. Montgomery and EMSA).*

C. Alternate Destination Regulations and AB 1544 (Bartleson)
The Gipson bill (AB 1544) is almost the exact same bill as the one last year from the California Professional Firefighters, with just a few minor changes. CHA is offering definitions of sobering center and mental health facilities.

Mr. Smiley said he is looking for approval of the alternate destination regulations at the September meeting in San Diego and to have them in place by the end of this year. The provisions in AB 1544 were narrowly modeled after work done with OSHPD, CDPH and DHCS, but additional changes would increase resources and organizational bureaucracy with potential disruption to EMSA and the local EMS system.

There are certain alternate destination voluntary facilities that would not be considered part of the current definition of a mental health facility or a sobering center. The current language states "medical facility" specifically, without definition. A non-licensed mental health facility might be a stretch for some of the alternate destinations, however, there is an ability for a sobering center to be designated as a health clinic by the county.

Pursuant to the wildfire in Paradise last year, during which the entire hospital except the ED was destroyed, Paradise has requested to maintain the remaining structure as a free-standing ED. Residents are still going there to get prescriptions refilled. However, it is illegal in CA to have a free-standing ED. According to Dr. Perlroth, ED physicians (CalACEP) say the facility must fill a need not currently being filled by a full-standing nearby hospital. The request in Feather River may meet the criteria for this. According to Title 22, however, to run a comprehensive ED, the eight basic services of a hospital must also be present.

> *ACTION: Information only.*

D. Ligature Risk Guidance (Bartleson/Keefe/Howard/Lowe)
CMS is not obligated to review submitted comments and no deadline was provided as to when the regulations will be final. For now, surveyors are to observe current guidelines. CHA conducted a member call on May 29 with the goal to get comments and questions submitted early and is currently working on a draft comment letter. CMS will conduct a call on June 20 at 11 am PT.

The biggest concern for ED is the lack of a clear definition of locked vs. unlocked areas. Hospitals have expended resources to train staff to comply and are asking CMS to limit the scope to just locked psychiatric units within med/surg hospitals and psychiatric hospitals. CMS sets the standard but TJC can raise that standard. Hospitals are pleased that CMS

realizes that the 60-day timeframe for compliance is unrealistic and have a Ligature Regulation Extension Request (LRER). A standard surveyor tool, accessible to hospitals, is also desirable.

Many hospitals are seeking beds/gurneys that are ligature free. Ms. Saucier has a source and will send the information to CHA.

Most members report that outside contractors, i.e. fillers of vending machines, do not get training as they are not involved in patient care. Non-clinical staff workers also do not get training. Everyone involved in patient care gets trained upon hire and updated yearly. Basic and additional training is given depending upon where in the hospital the employee works.

➢ *ACTION: Get information from Ms. Saucier regarding ligature free beds/gurneys.*

E.   LEMSA Destination Fees and Responsibilities (Bartleson)
EMSA is a state entity employing approximately 100 people. ESMA writes regulations, guidelines and statutes, and governs EMS licensure, monitors EMTs and EMS systems coordination, such as management and communications, performs data collection, education and disaster medical response.

By statute each county, if they choose, can establish a local EMS agency. Each CA county has a LEMSA, albeit, some are single agency, and some are multi-county agencies. Some multi-county agencies have contract or joint powers agreement, and some are corporations. Each must follow EMSA statues and regulations. Once a county designates a LEMSA, they have independent statutory authority and the county (Board of Supervisors) is no longer involved. The LEMSA has several responsibilities. Staffing and costs of a LEMSA is estimated at about $65 per capita. There are about 6 million emergency responses in the states which get transported to 306 medical facilities EDs, with about 80,000 EMS personnel and 3000-4000 ambulances.

LEMSAs are designated. Some counties fund the LEMSA from the county tax base or MADDY funds. Some are funded through stipends or matching funds that the county and the state EMSA will put up. Some LEMSAs need to support their system by seeking destination fees. A LEMSA should be able to provide a rationale for a designation fee or group of fees. The fee structure should be transparent and readily available.

F.   SB 1152 Homeless Update (Bartleson/Blanchard-Saiger)
CalOSHA requires all hospitals to have workplace violence prevention plans and report back. The issue for CHA is the increase in violent and aggressive behavior as a result of the SB 1152.

Ms. Blanchard-Saiger is seeking concerns and questions from the committee on how things are going and what issues hospitals are facing. One concern is the clothing being supplied to the homeless. There is nothing specific is in the law or CMS requirements on this issue. Some hospitals accept donations for this purpose, some are provided new clothing from foundations. Hospitals accepting donated clothing are not laundering the same as hospital linens.

➢ *ACTION: Ms. Bartleson to check with Ms. Wheeler on the issue of clothing for homeless on discharge.*

G. AFL 19-05 Emergency Services Regulations – Title 22 (Bartleson)
   Information only.

H. EMSA Trauma Regulations Review Workgroup (Bartleson/Venezio)
   The first meeting of this workgroup was held in May and will meet three more times. The group is working in sections, with the first section under review part of Title 22 defining the trauma regulations. The goal is to standardize the regulations, so they reflect the contemporary work set forth by ACS, however, there must be more structure than just ACS.

   Mr. Smiley reported that they do not want to do a complete rewrite, only change those things that need be changed. A key issue is whether EMSA will require every hospital to have an ACS minimum. Consensus is yes, with the outlier of pediatrics. There is a reimbursement issue related to the centers that have different pediatric levels. Hospitals have gradually adopted ACS.

   Saddleback is looking at becoming a trauma center. Committee member suggested that Christy Preston in LA has a great tool for this process.

   ➢ *ACTION: Information only.*

I. 2019 Emergency Services Regulations (Bartleson)
   AB 1544 – CHA and stakeholders are seeking common ground with more conversations scheduled for this week. California Professional Firefighters are open to CHA's definition of a sobering center.

   AB 774 – Per previous discussion, CHA may consider offering an amendment about making the data reporting voluntary rather than mandatory. It is agreed that everyone wants the information that the data would provide; the problem is how to gather and report it. Dr. Perlroth will go back to CalACEP about this option.

   AB 27 (Rodriguez) – Raises the urgency of assault of ED providers.

   SB 438 – Mr. Smiley reported that, as written, this bill will create downstream problems within the EMS system, such as: impact to the consumer for unreimbursable bills, absence of medical quality and patient safety, and lack of transparency.

   ➢ *ACTION: Information only.*

J. Human Trafficking (Bartleson/Colangelo)
   Dignity Health has implemented a program for human trafficking. Sharp is creating a San Diego ED collaborative and will be conducting a webinar on August 13 with ACNL on starting a program.

   The problem is spreading to suburban areas and the sense is that they are not ready for it. This problem is intensely resource heavy with a need for staff level training and safe places ready to accept the victims. There are various agencies in the county than can assist, but there is a need for a program in place to connect them.

   ➢ *ACTION: Ms. Colangelo to share information to the committee.*

K. ED Annual Forum (Bartleson)
In an effort to get more participation from ED people, CHA suggests partnering with ENA, CalACEP and others to create a broader perspective. Ms. Smith with ENA is interested.

An innovation document from San Diego that Kevin Moondahl and Jim Dunford prepared describing transitions of care and best practices – may be a method to bring participants together for the conference

➤ *ACTION: Information only.*

L. Bridge Program (Bartleson/Perlroth)
Dr. Moulin started the ED Bridge Program. Many hospital systems and health centers are creating programs. All sites got some portion of some federal funding. Due to this success, more funding is becoming available in August 2019. Substance Use Navigators (often a social worker or case manager) or Peer Navigators are crucial to the success of the program.

➤ *ACTION: Information only.*

M. EMSA (Smiley)
EMS-Children's (EMSC) established new regulations which become effective July 1.

EMSA is accepting input on legislation and bills regarding community paramedicine and dispatch bills that could be disruptive to the EMS system. They are working on HIE for EMS. DHS is pushing out an additional $50 mil for interoperability issues and HIE.

Dr. Backer is retiring at end of June.

EMSA continues to work on disaster medical response. Power outages as mitigation for wildfires is a substantial issue with need for discussion regarding the public health.

Ms. Bartleson with check in with CHA colleagues Ms. Martin and Ms. Massey to continue this discussion.

IV. ROUNDTABLE

➤ *ACTION: Next meeting, Mr. Zepeda will share their data metrics.*

V. NEXT MEETING
Tuesday, December 10, 2019. 10 am – 12 pm. ZOOM Meeting

➤ *ACTION: Committee recommended changing the next meeting date to October after legislation.*

VI. ADJOURNMENT
Having no further business, the meeting adjourned at 3:41 p.m.