Medication Safety Committee meeting

January 22, 2019

ZOOM Meeting: https://calhospital.zoom.us/j/526504478

Conference Call Option: 720-707-2699 Meeting ID: 526 504 478

Medication Safety Committee Meeting

Medication Safety Committee Meeting Agenda - January 22, 2019

2:00	I. CALL TO ORDER/INTRODUCTIONS Hanni		
	A. Member Roster/Map/Breakdown		Page 4
	B. Membership Updates		Page 9
	C. Committee Guidelines		Page 10
	D. 2019 Committee Meeting Schedule		Page 14
2:05	II. MINUTES Hanni/Fong	Recommend: Approval	
	A. October 10, 2018 Meeting Minutes		Page 15
2:15	III. OLD BUSINESS		
	A. SB 1254		Page 19
	B. FDA Drug Shortage Letter and Testimony		Page 90
	C. Board of Pharmacy Waiver Process		Page 100
	D. Inventory Reconciliation from Automatic Drug Dispensing Units		Page 101
3:00	IV. NEW BUSINESS		
	A. AB 2760		Page 105
	B. AB 1753		Page 110
	C. Enhanced Sterile Medication Compounding Evaluation - TJC		Page 123
3:30	V. ROUNDTABLE All		
	VI. NEXT MEETING		
	A. Wednesday, April 3, 2019 10 am - 12 pm (Virtual Meeting - if needed)		

4:00 VII. ADJOURNMENT
Hanni

CHA MEDICATION SAFETY COMMITTEE
2019 ROSTER

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Medication Safety Committee
Hospital Representation

BY COUNTY

As of January 9, 2019

Denotes number of hospitals/health systems represented within that county.

Contact	Position Type	Represented Organization	County (Represented Org
Candace Fong, Pharm.D	Chair	Dignity Health	San Francisco
Jeanette Hanni, R.Ph, MPA, FCSHP	Chair	Sutter Health	Sacramento
Amy Gutierrez, PharmD	Member	Kaiser Permanente	Alameda
Carolyn Brown, RN, MS	Member	Santa Clara Valley Medical Center	Santa Clara
Chris Patty, DNP, RN, CPPS	Member	Kaweah Delta Health Care District	Tulare
Christine Low, Pharm.D	Member	Scripps Health	San Diego
Deepak Sisodiya, PharmD, MHA	Member	Stanford Health Care	Santa Clara
Diana Schultz, RPh, MHSA	Member	Palomar Medical Center Escondido	San Diego
Doug O'Brien, Pharm.D	Member	Kaiser Foundation Hospitals	Sacramento
Eddie W. Avedikian, PharmD	Member	Providence Holy Cross Medical Center	Los Angeles
Kathy Ghomeshi, Pharm.D, MBA, BCPS, CPPS	Member	UCSF Medical Center	San Francisco
Kevin Dorsey Tyler, MD, PhD	Member	Enloe Medical Center - Esplanade Campus	Butte
Lori Nolan-Mullenhour, MSN, RN, NE-BC, CEN	Member	Providence Little Company of Mary Medical Center Torrance	Los Angeles
Nasim Karmali, RPh	Member	Kaiser Permanente Redwood City Medical Center	San Mateo
Richard B. Rabens, MD, MPH, FAAP	Member	Kaiser Permanente	Alameda
Rita Shane, Pharm.D, FASHP, FCSHP	Member	Cedars-Sinai Medical Center	Los Angeles
Sarah Stephens, Pharm. D, BCPS, CPPS	Member	Kaweah Delta Health Care District	Tulare
Anne Sodergren	Ex-officio	California Board of Pharmacy	
Art Woo, Pharm.D	Ex-officio	California Department of Public Health	
Cari Lee, Pharm.D	Ex-officio	California Department of Public Health	
Dan Ross, Pharm.D	Ex-officio	California Society of Health System Pharmacists	
John Christensen, Pharm.D	Ex-officio	California Department of Public Health	
Kimberly Kirchmeyer	Ex-officio	Medical Board of California	
Kimberly Tomasi, RN, MSN	Ex-officio	Association of California Nurse Leaders	
Loriann DeMartini, Pharm.D	Ex-officio	California Society of Health System Pharmacists	
Patti Owens	Ex-officio	California Association of Health Facilities	
Randy Kajioka, Pharm.D	Ex-officio	California Correctional Health Care Systems	
Steve Thompson	Ex-officio	California Society of Health System Pharmacists	

CALIFORNIA HOSPITAL ASSOCIATION

Providing Leadership in Health Policy and Advocacy

DATE: January 22, 2019

TO: Medication Safety Committee Members

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

SUBJECT: Review New Committee Membership

SUMMARY

Anne Sodergren is the Interim Executive Officer for the California Board of Pharmacy (BoP) and will be replacing Virginia Herold as the representative for BoP on the committee.

Also, Steve Thompson, Pharmacy Director at Torrance Memorial Medical Center, is the 2019 President of the California Society of Hospital Pharmacists. He will also be joining the Medication Safety Committee this year.

ACTION REQUESTED

- Information only

BJB:br

GUIDELINES FOR THE
CALIFORNIA HOSPITAL ASSOCIATION
MEDICATION SAFETY COMMITTEE

I. NAME

The name of this committee shall be the Medication Safety Committee.

II. MISSION

The mission of the Medication Safety Committee is to provide leadership within the health care community to promote the highest standards related to the safe and effective use of medications.

III. PURPOSE

The purpose of the Medication Safety Committee is to provide a forum for diverse multi-disciplinary health care organizations, which includes health care delivery organizations, patient safety organizations, discipline specific professional associations/organizations and regulatory agencies, to promote safe medication practices in the state of California. The Committee will focus on acting as a source of medication safety expertise, providing a venue for the coordination of medication safety activities and making recommendations related to medication safety legislation and regulations.

IV. COMMITTEE

The Committee (the "Committee") shall consist of a minimum of 16 representatives and not more than 35 representatives from hospital members and the following related organizations:

California Department of Public Health California
Society of Health System Pharmacists California
Board of Pharmacy
Centers for Medi-Care and Medi-Caid Services
Collaborative Alliance for Nursing Outcomes
Association of California Nurse Leaders California
Medical Association
California HQI and CHPSO
Risk Management Association
Representatives from the following CHA committees/centers:
Center for Behavioral Health
- Rural Health Center
- Quality Committee
- Joint Committee on Accreditation and Licensing Center
- for Hospital Medical Executives EMS/Trauma
- Committee
- Hospital Based Clinics Committee
- Center for Post Acute Care
- Governance

A. MEMBERSHIP

1. Membership on the Committee shall be based upon membership in CHA, or organizations that have a direct relationship to the purpose and mission of the Committee. CHA members will be hospital members. Non-hospital members are ex-officio members and can only be appointed to the Committee at the discretion of the CHA staff liaison.
2. The CHA Committee members shall consist of various representatives from large hospital systems, public institutions, private facilities, free-standing facilities, small and rural facilities, university/teaching facilities and specialty facilities. A member may fulfill more than one required membership position.
3. Hospital members are appointed by CHA Staff per recommendation of hospital Committee members and per hospital and non-hospital membership requirements listed above.
4. Guidelines for membership – these guidelines should be used when selecting potential new members for the Committee:
   a) Demonstrated experience in medication safety and understanding of regulatory environment based on current or recent job responsibilities
   b) Contributions to medication safety at the organizational and/or professional level
   c) Practice experience related to medication safety and regulatory compliance: at least 3 years (preferred).
5. Term:
   a) Terms of office shall be based on member participation and desire to remain active on the Committee. The CHA staff liaison will perform an annual review of member attendance, participation and desire to remain active on the committee.
   b) Chairs and Co-Chair positions will be filled by hospital members only and selected by the CHA staff liaison per recommendation of the present chair, co-chairs and by other members of the Committee. They will be selected based on their leadership and desire to fill the position.

B. MEMBER RESPONSIBILITIES

1. Provide hospital-industry leadership to the Committee and CHA Board of Trustees.
2. Identify issues and develop possible solutions and best practices to improve the safety of the medication use process.
3. Work cooperatively with key stakeholders to develop creative solutions.
4. Provide communication to member hospitals regarding medication safety issues.
5. Maintain/increased awareness of the legislative and regulatory environment with regard to medication safety issues.

C. COMMITTEE MEETINGS

1. Meetings of the Committee shall be held quarterly in person.
2. To maintain continuity, substitution of members should be discussed with the staff liaison and co-chairs on an individual basis.
3. Three consecutive unexcused absences by a Committee member will initiate a review by the co-chairs and CHA staff liaison for determination of the Committee member's continued service on the Committee.
4. Special meetings may be scheduled by the co-chair, majority vote, or CHA staff liaison.

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 present at a duly called meeting or telephone conference call.

E. QUORUM

Except as set forth herein, a quorum shall consist of a majority of members present or not less than eight.

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.

V. OFFICERS

The officers of the Committee shall be the Committee chair, co-chair and CHA staff liaison.

A. SUB-COMMITTEES

1. Task forces of the Committee may be formed at the discretion of the Committee chairs and members and CHA staff liaison for the purpose of conducting activities specific to a special topic or goal.

VI. GENERAL PROVISIONS

Goals, and objectives, shall be developed annually by the Committee with approval by the CHA staff liaison. 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 Hospital Council, the Hospital Association of Southern California, and the Hospital Association of San Diego and Imperial Counties. The primary office and public policy development and advocacy staff of the Committee shall be located within the CHA office.

The Committee staff liaison 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 and with approval by CHA.

VIII. LEGAL LIMITATIONS

Any portion of these Guidelines which may be in conflict with any state or federal statute or regulations shall be declared null and void as of the date of such 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 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.

CALIFORNIA HOSPITAL ASSOCIATION

Providing Leadership in Health Policy and Advocacy

December 4, 2017

TO: Medication Safety Committee Members

FROM: BJ Bartleson, MS, RN, NEA-BC

SUBJECT: 2019 Proposed Meeting Schedule - UPDATED

Following is the proposed meeting schedule for 2019 Medication Safety Committee meetings:

January 9, 2019	Virtual Meeting
April 3, 2019*	Virtual Meeting (if needed)
July 17, 2019	In Person - Sacramento, CHA Offices Board Room
October 17, 2019	In Person (in conjunction with CSHP Annual Meeting)

You will receive a save-the-date approximately one month prior to each meeting to verify your attendance/participation.

Thank you and if you have any questions, please feel free to call me directly at (916) 552-7537.

BJB:br

*New date

MEDICATION SAFETY COMMITTEE (12/19/2018)
MEETING MINUTES
October 10, 2018 / 10:00 a.m. – 2:00 p.m.

CHA
1215 K Street, Suite 800
Sacramento, CA

Members Present:	**Dan Dong, Candace Fong, Kathy Ghomeshi, Jeannette Hanni, Virginia Herold, Doug O'Brien, Dan Ross, Rita Shane, Sarah Stephens,**
Members on Call:	**Carolyn Brown, Kevin Dorsey-Tyler, Christine Low, Lori Nolan, Diana Schultz**
Guests:	**William Carroll**
CHA Staff:	**BJ Bartleson, Debby Rogers, Barb Roth**

I. CALL TO ORDER/INTRODUCTIONS – Hanni/Fong

The committee meeting was called to order by chair Ms. Hanni at 10:02 a.m. Ms. Hanni briefly reviewed committee mission, goals and objectives.

2019 Committee meeting discussion:

Ms. Bartleson and Ms. Hanni discussed the 2019 committee meeting changes for next year. The committee members emphasized the importance of the face-to-face meetings to build trust amongst stakeholders, particularly in a highly regulated environment. The networking done between hospitals, Board of Pharmacy (BoP) and California Department of Public Health (CDPH) is key to relationship building and positive negotiations on regulatory and statutory change. Ms. Herold, Executive Director of the BoP reinstated the importance of this meeting so the BoP has a regular opportunity to hear from hospitals.

Ms. Bartleson requested committee members save the July 17, 2019 date for the face-to-face meeting and save the other dates for potential calls. Perhaps another meeting could be held in conjunction with the CSHP seminar conference held in October.

- *Action: Ms. Hanni, Ms. Fong and Ms. Bartleson will discuss this option further. Committee members are asked to save all dates on their calendars and await next steps*.

II. REVIEW OF PREVIOUS MEETING MINUTES –Hanni

The minutes of the April 4, 2018 and July 11, 2018 Medication Safety Committee meeting were reviewed.

IT WAS MOVED, SECONDED AND CARRIED:

- *ACTION: Approved. Ms. Bartleson will follow up on next steps with Ms. Nolan and the nursing sterile compounding education and information for training.*

III. OLD BUSINESS

A. FDA Stakeholder Meeting (Bartleson/Keefe)

Ms. Bartleson discussed the memo from Ms. Keefe on the upcoming DEA hearing on drug shortages. CHA is looking for California specific information on patient adverse events and untoward operational costs caused by the drug shortages. Ms. Keefe intends to testify at this

stakeholder hearing with California specific information. Mr. Jaffe from CHPSO pulled adverse drug events related to drug shortages from their data base. Committee members were asked to provide information and stories related to adverse events due to the drug shortage.

Ms. Ghomeshi recently presented on the effects of drug shortages on patient safety and will provide a copy of the presentation to Ms. Bartleson. Ms. Nolan has information regarding the impact on nurses. The stakeholder meeting is on November 27, 2018. CHA would also like to understand the organizational cost impacts realized from drug shortages.

- *ACTION: Members to send information and stories to CHA on the impact on patients and hospital operations/financial due to drug shortages*

B. CURES (Bartleson)

Ms. Bartleson discussed the CURES progress with committee members and asked how the mandatory usage is proceeding. The committee members report that the physicians in the hospitals are confused about CURES and reported varying degrees of compliance. The members found the CURES power point in the packet very helpful and requested it be distributed digitally.

Ms. Fong remarked that she is concerned regarding retail pharmacies that have corporate policies to limit quantities of opioid dispensing to 7 days. . Retail pharmacies are doing this to limit their liability exposure. The policies are being enforced to protect the pharmacist and the pharmacy. This is impacting the patients as they will need to call the physicians when they can only receive a certain allotment of medication dispensed from a retail pharmacy

- *ACTION: Send the CURES PowerPoint and information from the meeting packet to committee members.*

C. Sterile Compounding Grids (Bartleson)

The committee reviewed the grids and agreed they are final and ready for distribution. The workgroup will continue to meet for updates, particularly for the finalization of USP 797.

- *ACTION: Information only.*

D. Sterile Compounding Update (Bartleson)

Ms. Fong and Ms. Bartleson went to the BoP Enforcement and Compounding Subcommittee, where there was discussion regarding room temperature in the modified sterile compounding regulatory text. USP 797 states that any drug labelled as “store at room temperature” can be refrigerated unless it states specifically that it cannot be refrigerated. Mr. O’Brien provided information about Title 22 regulations providing a range of temperature 59-86 degrees. Committee members would like to change temperature wording from “typically” to “approximately”. USP 797 calls for approximately 20 degrees Celsius.

- *ACTION: CHA will submit comments to the BoP to change wording to state “approximately 20 degrees”.*

E. Tubing Connectors (Rogers)

Ms. Rogers advised that pharmacists report having problems with leakage using the new reengineered tubing. Ms. Ghomeshi reported a few problems at her hospital, primarily with pediatrics and neonatal devices. NeoMed is one of the best organizations for solutions to problems that pharmacists are experiencing. Epidural connectors are not available yet.

- *ACTION: Information only.*

F. Narcotic Inventory Reconciliation Regulations

Ms. Bartleson discussed narcotic inventory reconciliation regulations and how the members wish to proceed, particularly for those hospitals who presently use a perpetual monitoring system that duplicates the inventory reconciliation regulations required by the BoP. Several health systems have spent additional funds to reconcile this within their facilities.

Ms. Herold reported that if this reconciliation becomes too burdensome, hospitals should report back to the Board on the onerousness of the process. A few committee members advised that they have been provided a reporting "template" by some of the BoP surveyors.

- *ACTION: Put this on the agenda for April to discuss and reevaluate.*

G. Nursing and Sterile Compounding

The members agreed it would be helpful to create a workgroup to develop a tool to be added to the Medication Safety Committee Toolkit grids that have been established for sterile compounding components

- *ACTION: Ms. Bartleson and Ms. Nolan to develop a workgroup.*

IV. NEW BUSINESS

A. **SB 1254 Education and Implementation**

Congratulations to Ms. Shane on her work to get this bill enacted. Implementation activities and subsequent education strategies will be determined, including a webinar with best practices.

- *ACTION: Ms. Bartleson, Ms. Shane and Ms. Stephens to discuss further and work with CHA Education Department.*
- *ACTION: Set up a conference call for entire committee participation.*

V. LEGISLATION

A. Legislation (Bartleson)

Ms. Bartleson discussed that SB1447 Automated Drug Dispensing bill may need review next year for potential issues. The group reviewed the 2017-18 list of pharmacy bill outcomes.

VI. STANDING REPORTS

A. Board of Pharmacy - BoP (Herold)

Ms. Herold reported the BoP is updating their strategic plan. The Enforcement and Compounding Committee will be divided into two committees. The Licensing committee is working on prison drug distribution. Currently, patients/prisoners move around to different locations and their drugs go with them. This will change so clinics will have ADDs in them. The BoP is considering adding a standardized symbol to the container label if it contains a chemotherapy drug. Members suggest a message be sent to the BoP that there should be consensus before making label changes. One bill the governor signed, which will go into effect in 2 years, will make it difficult for the BoP to deny licenses to pharmacists, particularly for drug offences.

➢*ACTION: Information only.*

B. California Department of Public Health - CDPH (Lee, Woo, Christensen)
No report.

C. California Society of Health-System Pharmacists - CSHP (Dong)
Mr. Dong reported the CSHP annual seminar was held this past weekend and focused on compounding. They appointed the first non-pharmacist, Henrietta Longley, to the CSHP Foundation. They are working with CDPH on comprehensive management. CSHP awarded Ms. Herold an honorary lifetime membership. Ms. Shane also received an award. As the current President of CSHP, this is Mr. Dong's last meeting. Mr. Steven Thomson will be replacing him as President in 2019.

➢*ACTION: Information only.*

D. CALNOC
No report.

E. Association of California Nurse Leaders – ACNL (Tomasi)
No report.

F. CHPSO (Jaffe)
No report.

G. California Association of Health Facilities – CAHF (Owens)
No report.

VII. OTHER BUSINESS

VIII. NEXT MEETING
To be determined.

IX. ADJOURNMENT
Having no further business, the committee adjourned at 1:05 PM

CALIFORNIA HOSPITAL ASSOCIATION

Providing Leadership in Health Policy and Advocacy

DATE: January 22, 2019

TO: Medication Safety Committee Members

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

SUBJECT: SB 1254

SUMMARY

Signed by the governor in September, SB 1254 requires hospital pharmacists to obtain the medication profiles for high-risk patients upon admission. Precise medication profiles help physicians make treatment and medication decisions during a hospital stay and at patient discharge. Pharmacy interns and technicians can perform this function once they have successfully completed training and proctoring by the hospital pharmacy department.

On January 15, 2019, CHA convened a webinar of experts to explain SB 1254 implementation at their organizations, learn about nuances within the law, and hear examples of how some hospitals currently define high-risk patients and their approach to interpretation and compliance with this regulation.

DISCUSSION

1) How is implementation of SB 1254 going?
2) What are some of the cost, staffing and compliance issues you are working on?

ACTION REQESTED

- Review and discuss implementation issues.

Attachments: SB 1254 FAQ
CSMC TOC Clinical Handout
CSMC TOC Pharmacy Tech medication History Manual
CSMC TOC Pharmacy Tech Med History Proctor Form
CSMC TOC Pharmacy Tech Med History Training Checklist
CSMC TOC Pharmacy Tech Competency Exam
CSMC TOC Pharmacy Tech Competency Exam Key
Pharmacy Medication Transitions Team (MTT) Training Grid

BJB:br

1. **What is the definition of a high-risk patient?**
    a. Patient populations vary amongst hospitals; therefore, it is the intent to allow each hospital to develop criteria for high-risk patients analogous to the requirements for determining which drugs are high-alert.
    b. Criteria for high-risk patients shall be developed by pharmacists in collaboration with physicians, nurses, and executive management.
    c. Hospitals may consider 30-day readmission data, current literature, key diagnoses (e.g. CHF, Transplant, COPD), number of prescriptions, and categories of prescription medications (e.g. anticoagulants, immunosuppression) when identifying high-risk patient populations.
    d. It is highly recommended that the criteria developed by each institution be approved by the Pharmacy and Therapeutics Committee and/or Medication Safety Committee.
    e. Preliminary criteria of high-risk patients may start with limited populations based on current hospital data and the addition of further criteria may be considered in the future based on their experience.

2. **What is the timeframe for obtaining a list relative to the admission?**
    a. Each hospital shall determine a reasonable timeframe in which a medication history must be obtained.
    b. Hospitals may define circumstances in which additional time is allotted to obtain the list. For example, for patients who are medically unstable, have cognitive impairment and where family and/or caregivers are not available or unable to provide the patient's medication history, up to 72 hours may be needed to obtain the list.
    c. In situations when the medication list cannot be obtained due to the patient's condition, cognitive impairment, lack of medication information or patient refusal, the PTA medication list may be documented as "unable to assess."

3. **What is meant by obtaining an accurate medication list?**
    a. Obtaining an accurate medication list is determining what medications (prescription and non-prescription) the patient is currently taking including dose, frequency and route if the patient/caregiver is able to provide this information.
    b. Additional sources of information that can be used, if available, include a medication list brought in by the patient/family/caregiver, the medication list from the last patient encounter in the electronic medical record, the patient's physician's office, electronic prescription data or the patient's pharmacy.
    c. A best possible medication list obtained using this approach would be considered an accurate medication list since it is based on the information available at the time.
    d. A good faith effort to obtain this information from the patient and/or other sources will be considered as meeting the intent of the Elements of Performance for NPSG.03.06.01.

4. **What happens if a medication error and/or discrepancy results from the medication list?**
    If an error or discrepancy results from the medication list, the existing hospital policy on how to manage medication errors would be followed. This situation would be no different than the current situation since each physician or allied health professional and pharmacist is responsible for determining if medications listed are appropriate for ordering during the inpatient admission based on patient-specific conditions, diseases, concomitant drugs, etc.

5. **How are technicians trained?**
    a. An established procedure for training and proctoring pharmacy technicians and/or intern pharmacists will be implemented by the hospital pharmacy department.

b. A standard process to train staff and evaluate competency may include the following elements:
   i. Training manual
   ii. Competency examination
   iii. Proctoring and observation of technicians obtaining medication lists

6. **How often should quality assurance be performed?**
   Each hospital will develop a routine quality assurance program to ensure ongoing competency of staff.

7. **Are medication histories obtained by technician signed by pharmacists?**
   Medication histories or profiles may be transcribed by technicians into the medical record. Note that these lists are not orders until such time that the physician orders the medication. If the medications are ordered during the inpatient admissions, the pharmacist is responsible for reviewing and verifying the orders.

8. **How are interns (pharmacy students) trained?**
   Intern pharmacists are trained to obtain medication histories under the supervision of a pharmacist.

9. **B&P code 4118.5(a) indicates the medication profile or list be obtained for high high-risk patients under certain conditions, one of them being "the hospital has more than 100 beds". Since "hospital" is not defined or referenced in B&P code 4118.5(a), is the definition subject to interpretation and if so, what is the regulatory stance? For the purposes of B&P code 4118.5(a), would it be acceptable for organizations to use the definition of "hospital" as defined in California H&S code 1250(a)?**
   California H&S 1250(a) code to define "hospital". See link for legislative language.
   https://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?sectionNum=1250.&lawCode=HSC

10. **B&P code 4118.5(a) uses the word "admission" but does not define "admission". Seeking regulatory stance or interpretation for the word "admission" in the context of B&P code 4118.5(a). Per the code, would a medication profile or list for high-risk patients be required for patients in Observation Status?**
    The intended definition of admission is for high-risk patients who are admitted as inpatients; therefore, observation patient should be excluded.

TOC Clinical Handout

Inhalers

General clinical pearls

1. Document in Epic how the patient reports using the inhaler
2. If prescriber directions differ from how the patient is using the inhaler, add a comment indicating how the prescriber intended for the inhaler to be used

Rescue inhalers	Image
• Common examples: ○ Albuterol (Ventolin, Proair, Proventil) • Purpose: to be used as needed for quick relief of shortness of breath • Clinical pearl: use on regular basis may indicate that symptoms are not controlled	

Maintenance inhalers	Image

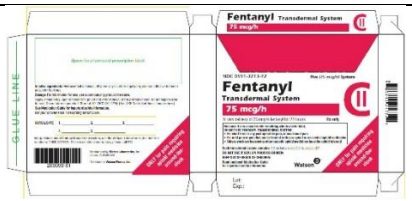
• Common examples:
  ○ Fluticasone/salmeterol (Advair)
  ○ Budesonide/formoterol (Symbicort)
  ○ Ipratropium/albuterol (Combivent)
  ○ Tiotropium (Spiriva)
  ▪ Clarify Handihaler vs Respimat
  ○ Fluticasone/vilanterol (Breo Ellipta)
• Purpose: to be used on regular basis to control and prevent breathing symptoms from occurring
• Clinical pearl: should not be used on as needed basis; most are used twice daily (Breo and Anoro Ellipta are only once daily)
	

Patches

General clinical pearls

1. Ask if patient has patch "ON" or "OFF"
   a. If ON, ask when applied
   b. If OFF, ask when removed
2. If you are entering in profile, always ask for the name, strength and frequency of patch
3. If applicable, indicate what day of treatment the patient is on

Patches	Details	Images
Nicotine patch (Nicoderm CQ)	• Purpose: smoking cessation therapy • Duration: 16-24 hours • Clinical pearl: available over the counter	
Fentanyl	• Purpose: opioid analgesic to relieve severe	

(Duragesic) *CII*	ongoing pain • Duration: 48-72 hours • Clinical pearl: controlled medication, fill record available through CURES	
Clonidine (Catapres)	• Purpose: control blood pressure • Duration: 7 days • Clinical pearl: only square patch contains active medication, no medication in round adhesive cover	
Scopolamine (Transderm Scop)	• Purpose: prevent nausea and vomiting from motion sickness • Duration: 3 days • Clinical pearl: patch should only be placed behind the ear	
Lidocaine (Lidoderm)	• Purpose: local anesthetic for pain or discomfort • Duration: 12 hours • Clinical pearl: patients may have multiple patches applied at one time	

Congested Heart Failure

What is heart failure?

- Heart failure occurs when the heart is not able to supply enough oxygen rich blood to the body from either the impaired ability to fill or eject blood

Medications used in heart failure

Class	Use	Examples
Diuretics	Get rid of extra fluid (improve symptoms) and reduce swelling	Furosemide (Lasix), bumetanide (Bumex), torsemide (Demadex)
ACE-I OR ARB	Treat high blood pressure and help heart function	ACE-I • Lisinopril (Prinivil, Zestril), Enalapril (Vasotec), Benazepril (Lotensin), Ramipril (Altace), Captopril (Capoten) ARB • Olmesartan (Benicar), losartan (Cozaar), valsartan (Diovan), irbesartan (Avapro), candesartan (Atacand)
Beta Blockers	Improves heart function (prevent heart attacks, and treat heart failure)	Metoprolol succinate (Toprol XL)*, carvedilol (Coreg), bisoprolol (Zebata)
Aldosterone antagonists	Improve heart function	Spironolactone (Aldactone), eplerenone (Inspra)
Others:	May be used in addition to	• Hydralazine

	previous medications	• Isosorbide dinitrate, isosorbide mononitrate • Digoxin

*Two forms of metoprolol; metoprolol succinate (Toprol XL) [long acting formulation] & metoprolol tartrate (Lopressor) [short acting formulation]

Anticoagulants

General clinical pearls

1. Ask when the patient took their last dose
2. Ask if patient attends anticoagulation clinic since we may be able to look up previous doses

Warfarin	Images

• Purpose: treat or prevent blood clots
• Clinical pearls:
  ○ Tablet colors are standardized so if a patient does not know the strength, ask about color
  ○ Ask if patient takes different strengths on different days
  ○ Ask if patient uses a whole tablet or half tablet
	
	Tablet strength / Tablet color
	1 mg – Pink
	2 mg – Lavender (light purple)
	2.5 mg – Green
	3 mg – Tan
	4 mg – Blue
	5 mg – Peach (light orange)
	6 mg – Teal (blue-green)
	7.5 mg – Yellow
	10 mg – White
	
	1mg Pink Please; 2mg Lavender Let; 2.5mg Green Granny; 3mg Tan/Brown Brown; 4mg Blue Bring; 5mg Peach Peaches; 6mg Teal To; 7.5mg Yellow Your; 10mg White Wedding

Direct oral anticoagulants	Images

• Common examples:
  ○ Apixaban (Eliquis)
  ○ Rivaroxaban (Xarelto)
  ○ Dabigatran (Pradaxa)
• Purpose: treat or prevent blood clots
• Clinical pearls:
  ○ No regular lab monitoring required
  ○ Available as brand only so can use pill pictures to help determine patient's dose
	

Acute Coronary Syndrome (ACS)

What is ACS?

- Thrombus occludes blood vessel which disrupts blood flow to the heart
- ACS can result in a myocardial infarction (MI) or unstable angina

Treatment

- PCI (percutaneous coronary intervention) (i.e. “stent” in lay language)
- Medications to prevent clots

Medications

Drugs	Dose	Duration of therapy
Aspirin	81-325 mg	Indefinitely
+ (for most patients)		
Anti-platelet (one of the following)		
Clopidogrel (Plavix)	75 mg daily	6-12 months (at least)
Prasugrel (Effient)	5-10 mg daily	6-12 months (at least)
Ticagrelor (Brillinta)	90-60 mg BID	6-12 months (at least)

Key Points

- Main side effect to be aware of with regards to these medications is bleeding
- **Patient abrupt discontinuation can result in increased risk of adverse cardiovascular events**
- NSAIDs should be avoided due to increased risk of bleeding

Insulin

Insulin	Details	Images
• Short acting ○ Lispro (Humalog) ○ Aspart (Novolog) ○ Regular (Humulin R, Novolin R)	• Purpose: mealtime blood sugar control • Clinical pearl: can be either fixed dose or sliding scale	
• Intermediate ○ NPH (Humulin N, Novolin N)	• Purpose: basal blood sugar control • Clinical pearl: can be dosed 1-2 times daily, obtain time of last dose	
• Long acting ○ Lantus ○ Levemir ○ Toujeo ○ Tresiba	• Purpose: basal blood sugar control • Clinical pearl: usually dosed once daily, obtain time of last dose • Multiple concentrations for Tuojeo and Tresiba	
• Mixed ○ Humulin 70/30 ○ Novolin 70/30 ○ Novolog 70/30 ○ Humulin 50/50 ○ Humalog 75/25	• Purpose: mealtime and basal blood sugar control • Clinical pearl: mixed insulin will appear cloudy • Typically used 1-2 times per day	

Key Points

- Verify whether patient uses vials or pens to ensure accurate product on PTA list

Transplant

General clinical pearls

1. The dose of the transplant medication that the patient is actually taking may be different from the dose on the prescription label
    a. Physicians sometimes verbally communicate dose changes without sending a new prescription to the pharmacy
2. If the patient had their transplant completed at Cedars-Sinai, there may be telephone encounters documenting the dose that the patient is supposed to be on
3. Surescripts history may not always include transplant medications as they could be filled by a specialty pharmacy or under Medicare Part B insurance

Transplant	Image

• Calcineurin inhibitors
  ○ Tacrolimus
  ▪ Regular release: Prograf
  ▪ Extended release formulation: Astagraf XL, Envarus XL
  ▪ Other: also available as sublingual and as liquid
  ○ Cyclosporine
  ▪ Modified: Neoral
  ▪ Not modified: Sandimmune
  ▪ Neoral is not bioequivalent to Sandimmume (please enter specific product)
	

• Mycophenolate mofetil: Cellcept
  ○ Available as 250 mg and 500 mg
• Mycophenolate sodium: Myfortic
  ○ Available as 180 mg and 360 mg	

• Prednisone: ○ Patients may be on a low dose or tapered prednisone regimen	

• Other medications
  ○ Azathioprine: Imuran, Azasan
  ○ Everolimus: Afinitor, Zortress
  ○ Sirolimus: Rapamune
  ○ Patients may be on prophylaxis antibiotics, antifungals, and antivirals	

Over-the-Counter medications

OTC	Clinical pearls	Picture
• Aspirin	• Often prescribed as once daily	
• Ibuprofen: Advil, Motrin • Naproxen: Aleve	• Often used as needed for fever and/or pain • Common OTC doses: ibuprofen (200 mg), naproxen (220 mg)	
• Acetaminophen: Tylenol	• Often used as needed for fever and/or pain	

	• Common OTC doses: 250-500 mg	

Antibiotics

General clinical pearls

1. If an antibiotic if on a patient's PTA medication list, check the date and ask if patient started and/or finished the course
    a. Note the time of antibiotic start/stop date in the comments section
2. If an antibiotic is not on a patient's PTA medication list but the patient tells you or it is documented in Surescripts, ask the patient the antibiotic name, strength, indication, when it was started, how many current doses were taken, and length of therapy

Prednisone tapers

General clinical pearls

1. If prednisone taper is on the PTA medication list, ask what strength the patient is taking and what day of therapy they are in
    a. Note the time in the comments section
2. If prednisone taper is not on the PTA medication list, ask what strength they started with, what current strength they are in, and what day they are in
    a. Please consolidate information into one entry (may need to free-text sig in "Instruction" section)
    b. You do not need to enter all the prednisone taper in the instructions of your entry

Herbals

Herbals that are important to include in PTA list (due to potential for drug interactions, etc.)

- St. John's Wort
- Red yeast rice
- Black Cohosh
- Echinacea
- Garlic
- Ginkgo Biloba
- Ginseng
- Goldenseal
- Ginger
- Kava
- Coenzyme Q10
- Cranberry
- Evening Primrose Oil
- Valerian
- Saw Palmetto
- Yohimbe
- Feverfew
- Green tea

Pharmacy Technician Medication Histories:
Responsibilities and Training Manual©

Introduction and Definitions

What is a medication history and reconciliation? (as defined by The Joint Commission, National Patient Safety Goal.03.06.01)[1]

- **Medication history** - Obtain information on the medications the patient is currently taking when he or she is admitted to the hospital or is seen in an outpatient setting. This information is documented in a list or other format that is useful to those who manage medications.
  Note 1: includes scheduled medications and as needed (PRN) medications
  Note 2: It is often difficult to obtain complete information on current medications from a patient. A good faith effort to obtain this information from the patient and/or other sources will be considered as meeting the intent
- **Medication reconciliation** - Compare the medication information the patient brought to the hospital with the medications ordered for the patient by the hospital in order to identify and resolve discrepancies.

What is the purpose of a medication reconciliation?[1]

- The purpose of medication reconciliation is to eliminate medication errors and minimize patient harm by identifying and resolving discrepancies that occur at admission to the hospital. Medication errors that occur at admission may be continued through hospitalization and at discharge.
- The evidence:
  - 82% of patients older than 65 years have at least one discrepancy on their medication list.[2]
  - Based on research conducted at CSMC's Emergency department, there are an average of 8 errors per medication list in high risk patients.[3]

Health Literacy:

- Health literacy is the degree of which individuals have the capacity to obtain, process and understand basic health information and services needed to make appropriate health decisions.
- The US Department of Education conducted a national survey in 2003 to assess health literacy among American adults—The National Assessment of Adult Literacy.
  - 36% of adult Americans – 80 million people – were estimated to have health literacy levels **below** what is required to understand typical medication information.
- Patients need your help through medication history to be prescribed the appropriate medication in the hospital and upon discharge.
- CSMC research indicates that patients with low and intermittent adherence has a 2.54 higher likelihood of being readmitted[4]

Patient Communication

Cedars-Sinai Vital Behaviors

1. Treat patients, family members, and co-workers with courtesy and respect.
2. Explain things in a way that patients, family members and co-workers will understand.
3. Listen carefully in order to understand patients, family members and co-workers.
4. Anticipate and respond to patients, family members and co-worker requests and concerns in a timely manner.

Customer Service (General Tips):

- Always be respectful in your interactions with patients. Admission to the hospital is a stressful time for patients and their families.
- Good communication skills are critical:
  - Need to feel comfortable talking directly with patients and their families
  - Need to be able to ask questions and tease out information
  - Always clearly explain the purpose of your visit. It is important that the patient/family understand the importance of the medication history.
- Be patient. Listen to the patient's concerns and answer carefully.
- Be mindful of voice volume and pace
  - Some patients could be hard of hearing
  - Patients may *seem* like they are following along by nodding/replying "yes" but they may not fully understand.
  - Speak louder and/or stand closer if necessary and/or sit close to patient so you are at eye level.
- Be sensitive to different cultures.
- "No second chance to make a first impression"
  - Make sure white coat is clean and pressed (except pediatrics)
  - Act in a professional manner
  - Always Gel-IN and Gel-OUT even though you are not touching the patient

Tips to remember when interviewing patients about their medications:

- When asking about all medications, be sure to get all elements of the medication. Like a sentence, each medication needs the following elements:[5]
  - **Medication name**
  - **Dose/dosage form**
  - **Route**
  - **Dosing schedule (Last dose taken if completing medication history in the Emergency Department (ED)**
  - Specific for prn (as needed) medications – how often or average taken in a day/week

- **Use open-ended questions** (what, how, why, when) and balance with yes/no questions.
- **Pursue unclear answers** until they are clarified.
- **Ask simple questions**, avoid using medical jargon, and always invite the patient to ask questions.
- **Prompt the patient** to try and remember patches, creams/ointments, eye/ear drops, inhalers, sample medications, shots, herbals, vitamins, OTCs and minerals if they are critical medications.
- **Have patients describe how and when they take their medications**, and if they ever have difficulty taking their medications or remembering to take their medications. Vague responses may indicate non-compliance.

Non-English Speaking Patients:

- Before entering patient room, check the patient language preference in CS-Link in the Inpatient (IP) MD Snapshot under Preferred Language

Preferred Language and Interpreter	
Preferred Language	Interpreter Needed?
Hungarian	No

- A CSMC approved interpreter should be used for non-English speaking patients
    - Interpreters services can be accessed **24-hours-a-day, 7 days-a-week,** by dialing ext. **3-5353**
        - Interpreter services will either send an interpreter or instruct you to use the Martii interpreter communication device.
        - Martii devices are available at nursing stations or can be requested by calling the ED Storekeeper if patient is in ED.
    - If you speak the patient's language you may ask them for their pharmacy information so you can contact them.
    - Do not discuss any medical information with the patient if you are not a CSMC certified interpreter.

Introduction Script for Patient Interview:

"Hello Mr./Mrs. _____. My name is _____ and I am a pharmacy technician here at Cedars-Sinai Medical Center. It's really important for us to know exactly what medications you are taking at home, to make sure you are on the medications that you need to be on throughout this hospital stay.

To ensure that we have a complete list of your current medications, a pharmacist may talk to you (or your family members) later as well. Several other members of our healthcare team may also ask similar questions. We are doing this to make sure that we don't miss anything."

Additional questions to ask the patient if the medication information ascertained is incomplete: (ALL should be open ended, do not give them the answers)

- Obtain the name and location of the pharmacy patient uses to fill medications
    - "Where do you have your medications filled?" (obtain name and cross streets)
    - "Is this the only pharmacy you use to fill your medications? If not, where else?"
- Obtain the name and location of the patient's primary care physicians or prescriber
    - "Who is your primary doctor? Do you have their phone number on you?"
    - "Do you have the names of any other doctors you have seen recently?"

- Obtain a list of medication allergies. Report all allergies to the pharmacist for a more extensive follow up.

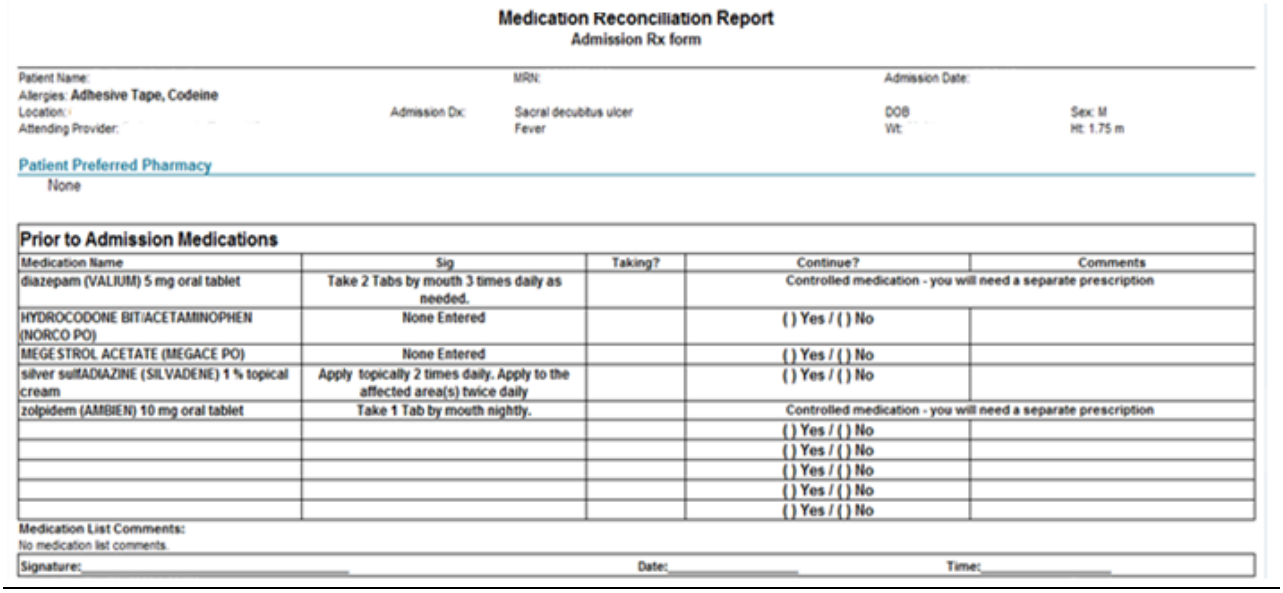
Address the patient's questions:

- If asked about medications, side effects, indications: "I will have the pharmacist address all of your questions and discuss your medications with you."

Medication History Process

Preparation Before Seeing Patient:

- Print the PTA med list from CS Link
  - Patient Cardex Screen-> Type **"rx med rec"** into *Report* field in upper right hand corner
  - Print the "Medication Reconciliation Report" using the print icon in the upper right hand corner



Medication Reconciliation Report
Admission Rx form

Patient Name: MRN: Admission Date:
Allergies: **Adhesive Tape, Codeine**
Location: Admission Dx: Sacral decubitus ulcer DOB Sex: M
Attending Provider: Fever Wt: Ht: 1.75 m

Patient Preferred Pharmacy
None

Prior to Admission Medications

Medication Name	Sig	Taking?	Continue?	Comments
diazepam (VALIUM) 5 mg oral tablet	Take 2 Tabs by mouth 3 times daily as needed.		Controlled medication - you will need a separate prescription	
HYDROCODONE BIT/ACETAMINOPHEN (NORCO PO)	None Entered		( ) Yes / ( ) No	
MEGESTROL ACETATE (MEGACE PO)	None Entered		( ) Yes / ( ) No	
silver sulfADIAZINE (SILVADENE) 1 % topical cream	Apply topically 2 times daily. Apply to the affected area(s) twice daily		( ) Yes / ( ) No	
zolpidem (AMBIEN) 10 mg oral tablet	Take 1 Tab by mouth nightly.		Controlled medication - you will need a separate prescription	
			( ) Yes / ( ) No	
			( ) Yes / ( ) No	
			( ) Yes / ( ) No	
			( ) Yes / ( ) No	
			( ) Yes / ( ) No	

Medication List Comments:
No medication list comments.

Signature:_____ Date:_____ Time:_____

Medication History Workflow:

1. Determine if an existing PTA med list is available in CS-Link
   - What medications was the patient discharged on previously (and when was last discharge)?
   - It is not enough to rely on the physician's preadmission medication list as the main source of additional information as our research demonstrated 8 errors per PTA medication list.
2. Ask patient/family if they have a PTA medication list/pill bottles available
   - Find out if there is a caregiver/family member who helps the patient with their medications: "Who helps you with your medications?" "Will this person be able to give me more information regarding your medications?"
3. If the patient/family does not have a medication list available, you will need to complete a verbal medication history. A copy of all medication lists obtained by the family should be provided to nursing to be scanned into the patient's profile.

Assessing patient's home medication list:

- Assess if patient is currently taking medication
- Fill in the gaps[6]
    - For each medication, elicit the dose and time(s) of day the patient takes it, if this information is not already provided
    - When needed, ask about formulation (i.e. extended release form of diabetes or blood pressure agents) and route of administration (i.e. by mouth, in both eyes)
    - Determine the indication for the medication, if available
        - "Do you know what you take this medication for?"
    - Inquire about how often the patient needs PRN medications (i.e. pain medication)
        - "How often do you normally need this medication?"
        - "On average, how often do you take this medication on a daily basis or on a weekly basis?"
    - Determine when the patient took the last dose (if completing medication history in the ED). Remember, always ask how many of the product they take; 2 caps or 1 tab so many times a day.
    - Ask about non-prescription products only if it is critical to the patients stay:
        - "Do you take any medications that do not require a prescription?"
        - Including over-the-counter, herbals, vitamins, etc.
        - Supplements: note name of medication and frequency. Include strength of the supplement if readily available or if the reviewing pharmacist determines that it is clinically relevant. Do not spend time getting this information if not critically important.
- If patients are not sure or are relying on memory only, or cannot clearly "clean up" the other sources of medication information, then it's time to rely on other sources: community pharmacies, outpatient physician offices, having the family bring in pill bottles, etc.

Determining the Need for Post-Discharge Follow-Up (PDFU):

- Use the Medication Adherence and Literacy Scale (MedAL) (appendix C) to assess patient's medication literacy and adherence (appendix C)
- Post discharge follow up is completed by the TOC pharmacist for the following criteria:
    - medA score $\geq$ 3
    - Pharmacist indicate in the flowsheet that PDFU is needed
    - Physician request

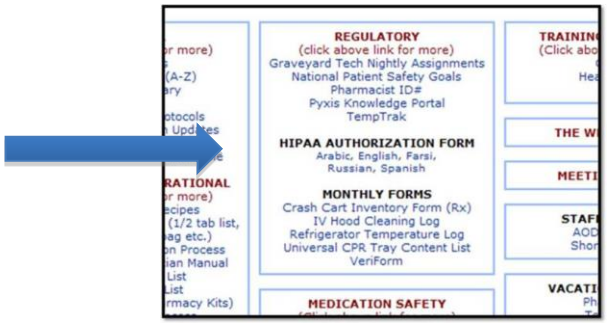
Determine the need to call outpatient pharmacy:

- Check CS Link Surescripts first for the information
- Call outpatient pharmacy only to clarify doses of critical medications when the regimen is still unclear after the patient interview. Ask the pharmacist for guidance to determine the need to call the outpatient pharmacy.

Calling outpatient pharmacies:

- Look in CS Link to obtain the patient's pharmacy and confirm with the patient.

- If the patient was admitted from a Board & Care or a Skilled Nursing Facility (SNF), obtain the name of the facility (usually in H&P). If the SNF did not send the medication administration record (MAR) with the patient (located in physical patient chart), call the facility and ask them to fax the patient's current MAR/medication list to you. If the SNF did send the MAR but it is not in the physical chart, check to see if it was scanned into the electronic chart by:
    - Go to patient's chart
    - Click on Chart Review
    - Go to the Media tab towards the right of the screen
    - Search for Misc-Outside Records scanned near admission date
  - If the patient uses the Veteran's Affair (VA) as their pharmacy:
    - If during business hours, you can contact American Lake or the VA Administration offices
    - After business hours, fax the VA Medical Records at 310-268-4710 (dial 9 before # on fax machine). Using one of our Fax Cover Sheets, write down patient's full name, date of birth, last 4 of social security number, patient's diagnosis & the Admitting Attending. Write down that you are requesting a current outpatient medication list to be faxed to us as soon as possible to 310-423-0037
- Have patient's name and date of birth ready
- When calling the outpatient pharmacy, introduce yourself and ask to speak to the pharmacist.
  - "Hi, I am _____, a pharmacy technician at Cedars-Sinai Medical Center"
- Address the reason for the call
  - "We have pt _____, who has been admitted. Unfortunately he/she doesn't know what medications he/she is taking, but says that he/she has his prescriptions filled at your pharmacy. In order to make sure we start the patient on the correct medications in the hospital, can you confirm some home medications for me?
    - Ask for critical medications only
    - If the entire list is needed, it may be easier to request a fax with the medications and instructions. It can be faxed to the team fax number (310-423-0037)
  - Make sure to get complete medication information from pharmacies (to include: medication name, strength and dose of medication; quantity filled; instructions to patient; date last filled (preferably last 3 months of fill history)). Ask the pharmacy if there are any medications the patient hasn't picked up yet or is waiting for prior authorization.
- Obtain the name of the pharmacist or technician who provided you with the information.
- If the pharmacist asks for HIPAA form before they can provide the information, tell them you can get that information and ask for their fax number so you can fax the signed form.
  - The HIPPA Authorization form is located on the main Pharmacy SharePoint page:



- Print the form, fill out the patient information, under section A check the box for "only the following records or types of health information (including any dates)" and fill in "medication list from outpatient pharmacy (pharmacy name and phone number)"
- Under Purpose, check off "other" and fill in "medication reconciliation"
- Under Signature, have the patient sign the form. If the patient is not available to sign, a representative, spouse, or financially responsible party can sign.
    - When seeing the patient, introduce yourself and state the reason you need them to sign the form. "Hello Mr./Ms. __. My name is ___, and I am a pharmacy technician working with the pharmacist to get your medication list. I contacted the outpatient pharmacy and they would like to have an authorization form signed by you so they can provide me with the information. Can you please sign this HIPAA authorization form, which will allow me to obtain your medication history from the outside pharmacy? Thank you."
    - If the patient refuses to sign the form, we can't contact the pharmacy
    - Make sure not to call this form a consent form, some patient's may not feel comfortable signing consent forms, this is just an authorization form
- You will sign under "hospital representative processing request"

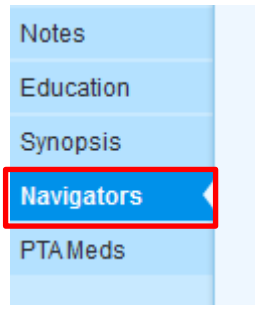
Contacting the patient's caregiver/family member:

- Introduction: "Hi, I am _____, one of pharmacy technicians at Cedars-Sinai Medical Center, Mr/Ms ___ provided me your contact information and has authorized me to contact you to obtain their medication list. Can you please tell me what Mr/Ms___ has been taking, including over the counter medications, vitamins, herbals, topical creams/lotions?"
- If caregiver/family member unable to provide information, ask them for information to patient's outpatient pharmacy

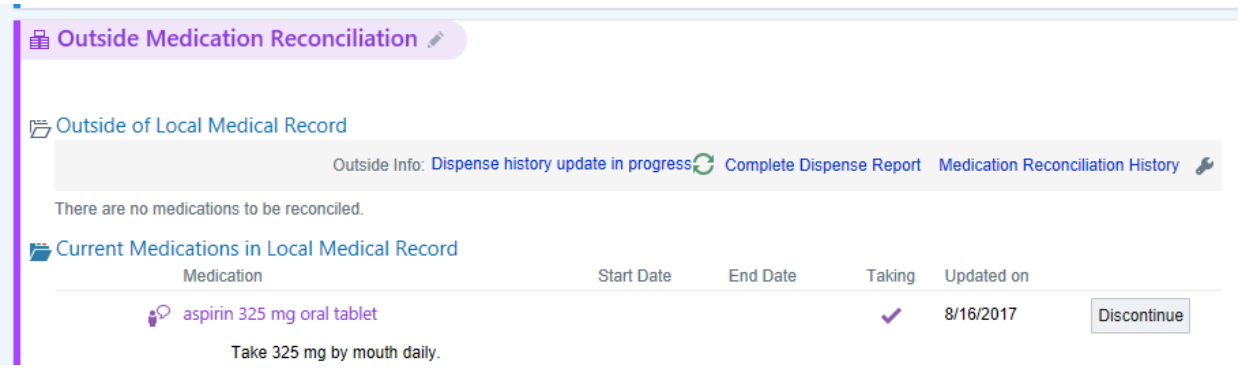
Documentation of Medication History

Updating the PTA Medication List in CS-Link:

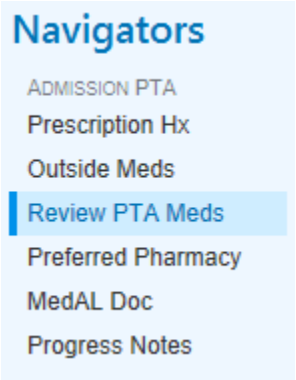
- To modify the patient's PTA medication list, start by clicking on the **Navigators** tab on the left hand side of the screen once you are in the patient's profile.

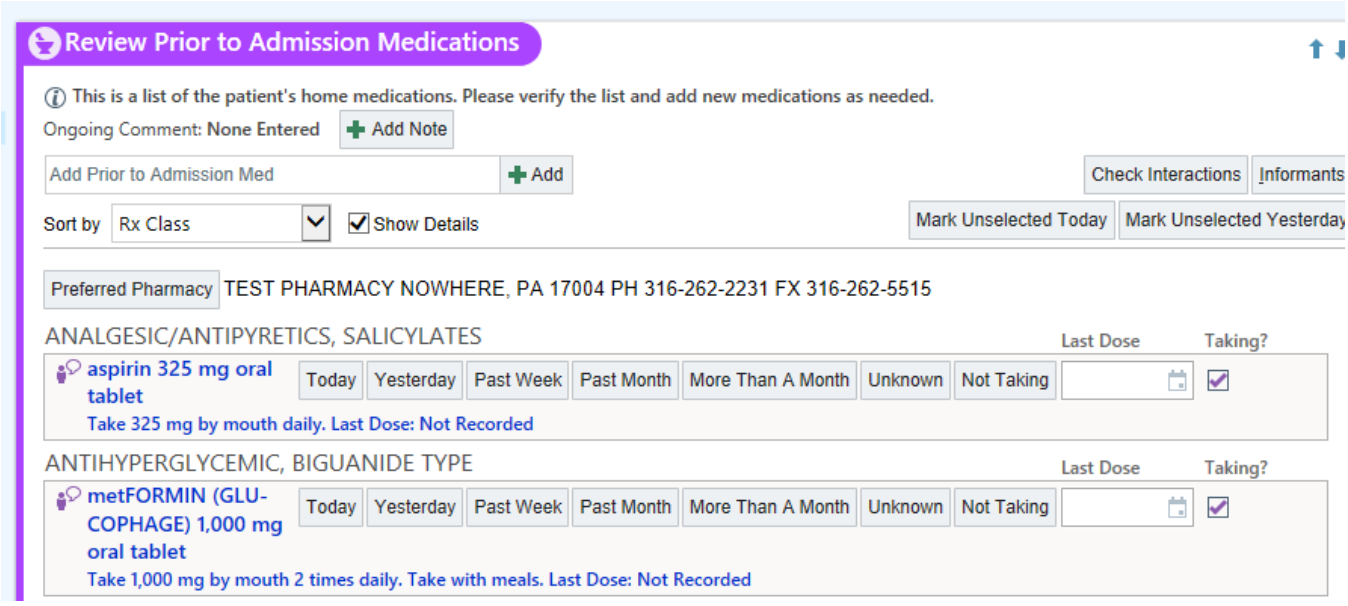


Click on "Review Prior to Admission Medications" to view the medication list.



Click on “Review PTA Meds” under the Navigator to make the list editable.

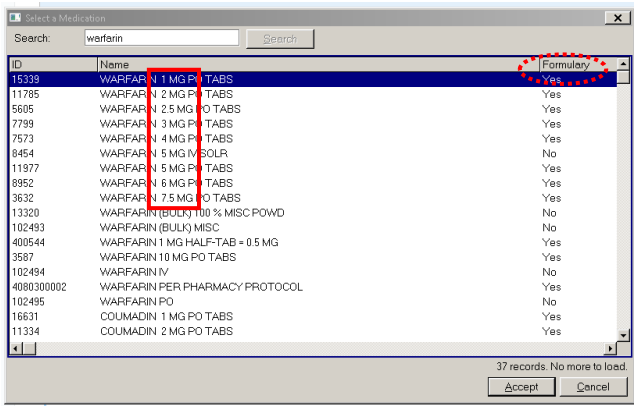




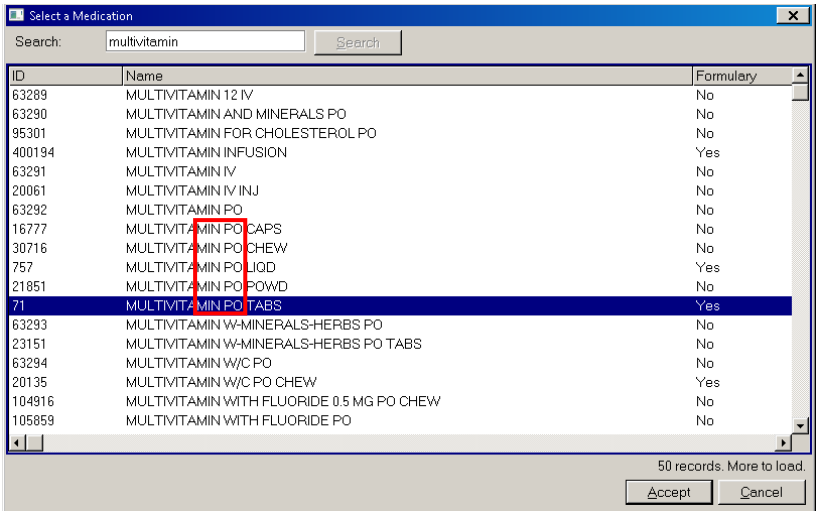
1) ADD to PTA Medication List
   - Enter new medications by selecting “Add Prior to Admission Med” search tool
   - Type in drug name – pop up box will appear
   - When appropriate, choose those that have **Formulary Status: YES (It is also important to select exactly what the patient uses at home as doctor’s occasionally select “resume all’ meds at**

discharge which may cause confusion at home and also to help prevent duplicate therapies once patient is home.)

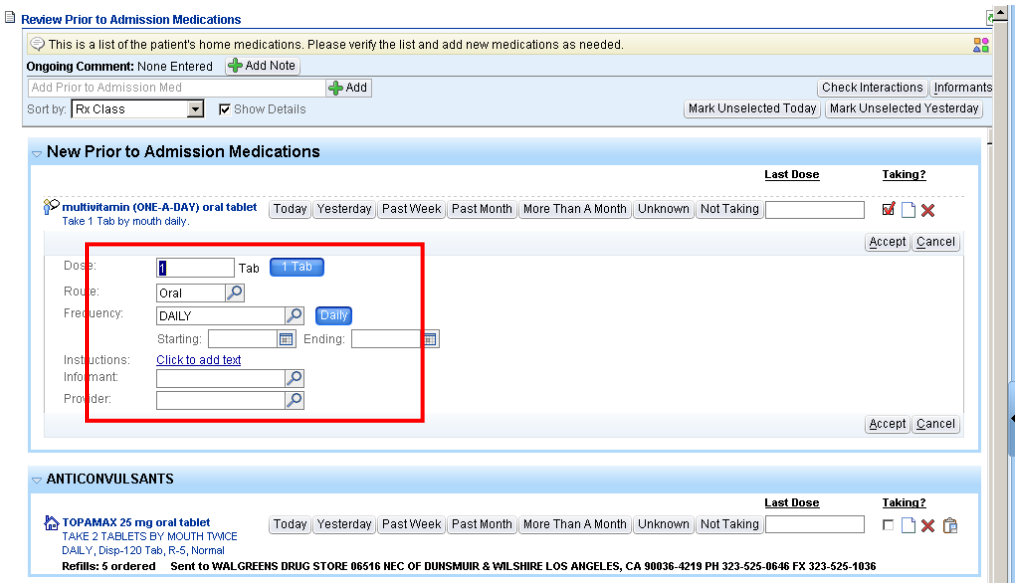
- Remember that medications entered here are PRODUCT SPECIFIC. If the patient is taking 1 mg warfarin tablets, be sure to select the appropriate strength:



- Also, be sure to select the correct dosage formulation:



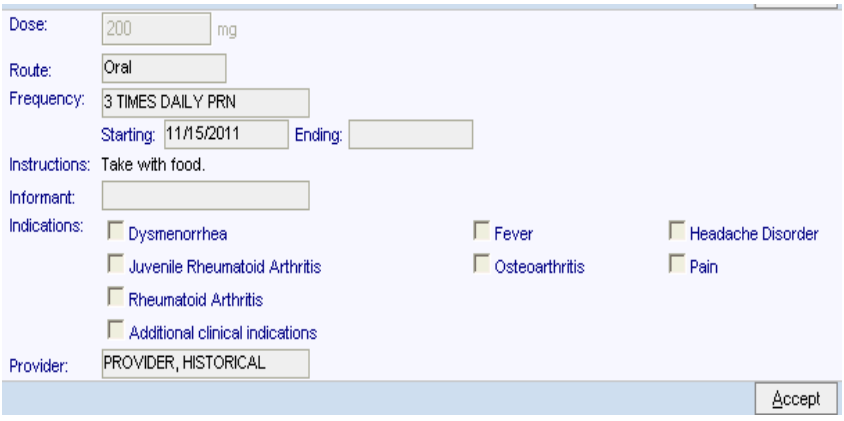
- Indicate the correct dose, route, and frequency that the patient was taking at home
- Note: For some medications, the above details are auto-populated **(Caution: these fields may still need to be changed based on what the patient is taking)** and for other medications, you must manually type in the above details (e.g. dose, route, frequency)



2) MODIFY a medication in the PTA Medication List

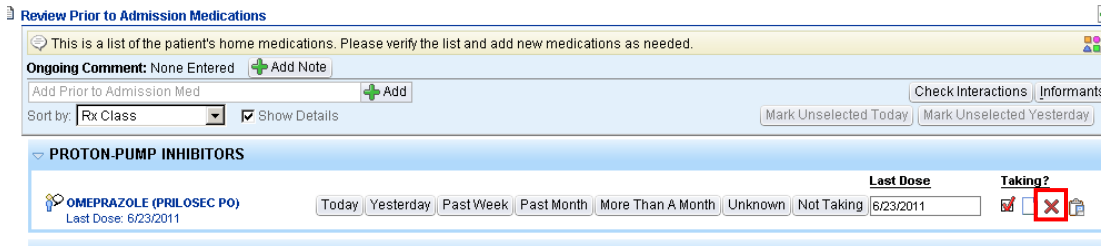
- If you need to edit an existing medication entry, click on the medication name and edit the fields (#1)
- After modifying the entry, make sure the taking box is checked (#2).

- Additionally, medications that were generated within CS Link will have a “house” icon next them and cannot be edited; however discrepancies in how the patient is taking it can be documented in the same manner that a patient-reported (designated by a person with a word bubble icon) order is changed. The discrepancies will be highlighted in yellow for physician review during the discharge medication reconciliation.

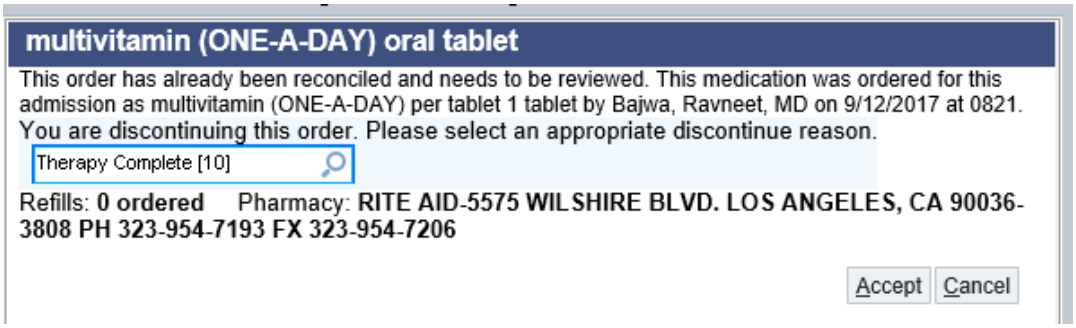


3) DELETE/DISCONTINUE a medication in the PTA Medication List

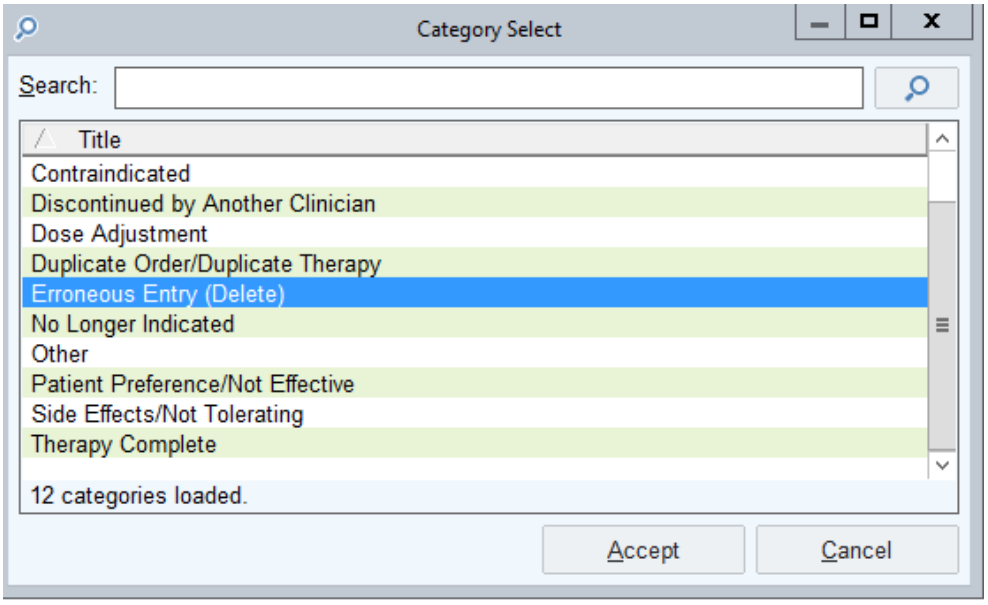
- If a medication is listed on the PTA Medication list that the patient is no longer taking then mark it as discontinued.
- If the medication is listed on the PTA Medication list and the patient reported that he has never taken, or there are duplicates, the medication needs to be deleted.
- Press the "X" located to the right of the medication to delete/discontinue:



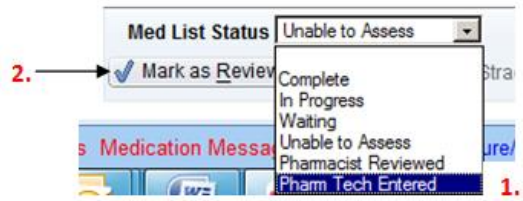
- This will open the discontinue window



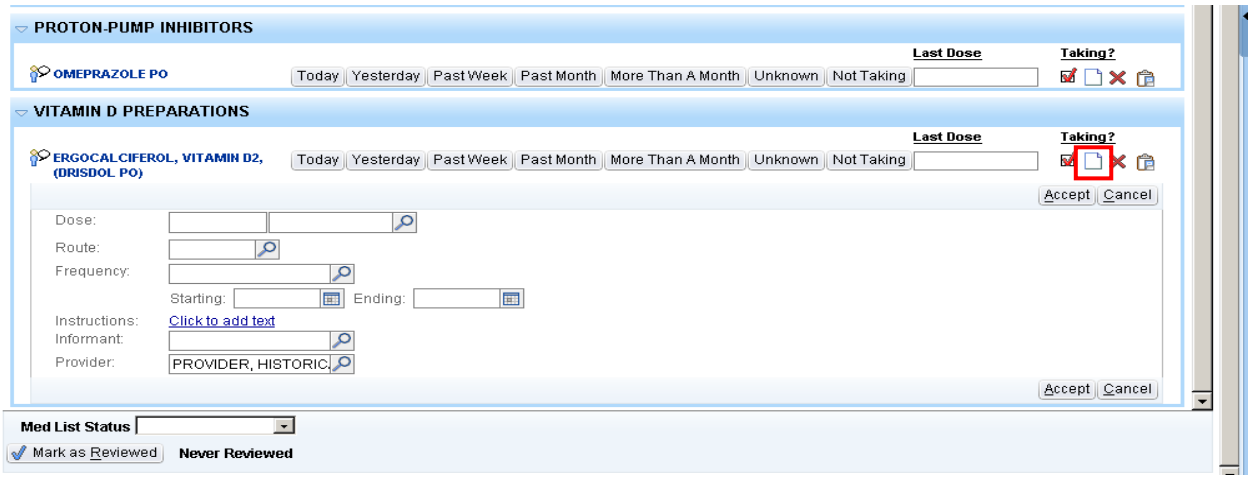
  - Click on the magnifying glass to select the most appropriate reason for discontinuation (e.g. "Therapy Completed")
  - If it is an erroneous entry, then click on the magnifying glass and select "Erroneous Entry (Delete)"



- Mark as reviewed:
    - Once you are done making all the changes make sure to
        - Choose “Pharm Tech Entered” (1) under Med List Status then click on “Mark as Reviewed” (2)



4) COMMENTS: If the patient reports taking a medication differently from how their physician prescribed, a comment should be written



Medication History Pearls

Antibiotics and prednisone tapers:

1. If an antibiotic is on a patient’s PTA medication list, check date and ask if the patient started and/or finished course and note the date in the comment section.
2. If antibiotic is not on PTA but the patient tells you or it is documented in Surescripts, ask the patient the antibiotic name, strength of antibiotic, indication, when it got started, how many current doses were taken and length of therapy.
3. If prednisone tapers are on the PTA list, ask what strength the patient is taking and what day they are in.
4. If prednisone taper is not on the PTA list, ask what strength they started with, then what current strength they are in and what day they are in. Please only do one strength entry and not multiple entries. You need to enter all of the prednisone taper in the instructions of your entry.

Warfarin:

1. Ask what strengths of warfarin tablets they are using at home. If patient doesn't know, ask what color their tablets are.

2. Ask if patient takes different strengths on different days.
    a. Make sure to clarify if the tablets are a whole tablet or a half tablet
3. Ask when they took it last.
4. Ask what anticoagulant clinic they are using; we may be able to look up latest doses.

<u>Insulin and pumps:</u>

1. Ask what kind of insulin(s) they are using & what time of day they're administering it.
2. Ask if they use specific units or a sliding scale.
3. If they measure carbohydrates, ask what their range is or carb ratio.
4. Ask when they last had their insulin(s) dose.
5. Insulin pumps: Pharmacist needs to be informed; If you already interviewing here are some key questions:
    a. What are their parameters, basal dose, carb counts, what rate is it going units/hr, sliding scale & insulin sensitivity plus ask if rates change between AM & PM. Write as much down as possible.
6. If patient is on a U-500 insulin, ask if they can provide their own or if someone can bring it in for them because it is a non-formulary item
7. Baclofen Pumps: Ask if they know how many milligrams they are getting per hour or per day. Ask where or who placed the pump in.

<u>Key questions to ask about patches:</u>

1. Ask if they have the patch "ON" or "OFF".
2. Ask when they placed the patch on, if they have one on or when was it taken off or removed.
3. If you are entering in profile, always ask name, strength & frequency of patch.
4. Indicate what day of treatment they are on.

References:

1. The Joint Commission National Patient Safety Goals 03.06.01
2. Cornu P, Steurbaut S, Leysen T. **Effect of medication reconciliation at hospital admission on medication discrepancies during hospitalization and at discharge for geriatric patients.** Ann Pharmacother. 2012 Apr;46(4):484-94. doi: 10.1345/aph.1Q594P.
3. Pevnick JM, Nguyen CB, Jackevicius CA, Palmer KA, Shane R, Bresee C, Bear ME, Zaitseva O, Seki D, Desai A, Doyle B, Bell DS. Minimizing Medication Histories Errors for Patients Admitted to the Hospital Through the Emergency Department: A Three-Arm Pragmatic Randomized Controlled Trial of Adding Admission Medication History Interviews by Pharmacists or Pharmacist-Supervised Pharmacy Technicians to Usual Care. J Patient-Centered Res Rev.2015;2:93.
4. Rosen OZ, Fridman R, Rosen BT, Shane R, Pevnick JM. **Medication Adherence as a Predictor of 30-Day Hospital Readmissions.** *Patient Prefer and Adherence* 2017 Apr 20;11:801-810. doi: 10.2147/PPA.S125672. eCollection 2017.
5. Shane R. **Why 'Universal Precautions' are needed for medication lists.** BMJ Qual Saf. 2016;0:1–2. doi:10.1136/bmjqs-2015-005116.
6. Marquis Manual

Appendixes:

Appendix A: Top 100 medications; http://www.drugs.com/stats/top100/sales

Appendix B: ISMP's List of Confused Drug Names

Appendix C: CSMC MedAl Tool

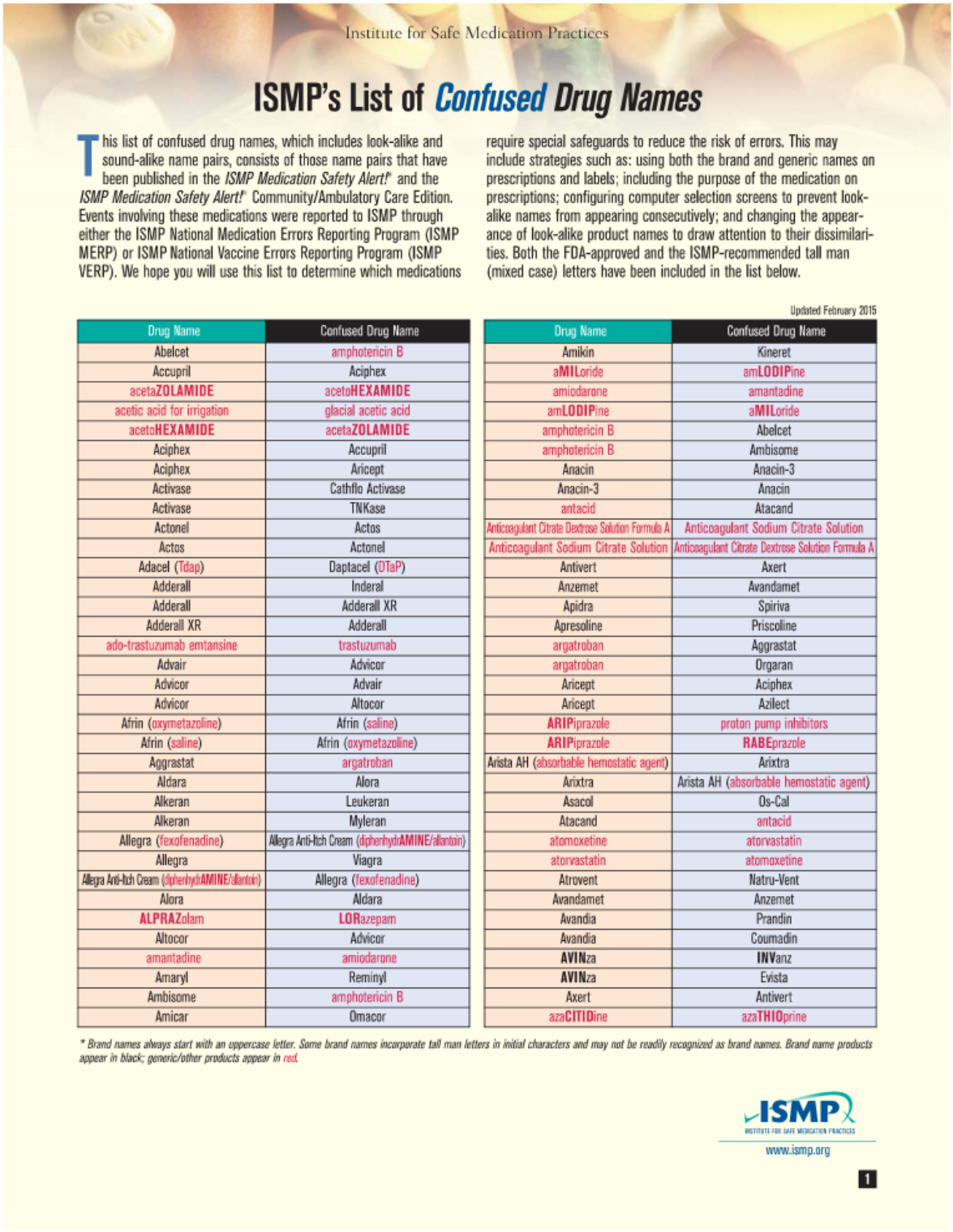
Appendix D: IPE Script

Appendix A:

Rank	Brand Name(s)	Generic Name	Disease/Medical Use
1	Abilify	Aripiprazole	Psychosis, Depression
2	Nexium	Esomeprazole	Gastrointestinal disorders
3	Cymbalta	Duloxetine	Depression, Anxiety disorders
4	Crestor	Rosuvastatin	Cholesterol
5	Advair Diskus, Seretide	Fluticasone + Salmeterol	Asthma
6	Humira	Adalimumab	Rheumatoid arthritis
7	Enbrel	Etanercept	Rheumatoid arthritis
8	Remicade	Infliximab	Crohn's disease, Rheumatoid arthritis
9	Copaxone	Glatiramer	Multiple sclerosis
10	Neulasta	Filgrastim	Neutropenia
11	Rituxan, MabThera	Rituximab	Non-Hodgkin's lymphoma, Rheumatoid arthritis
12	Spiriva	Tiotropium	Chronic obstructive pulmonary disease
13	Atripla	Emtricitabine/tenofovir/efavirenz	HIV infection
14	Januvia	sitagliptin	Diabetes
15	OxyContin	Oxycodone	Pain
16	Avastin	Bevacizumab	Colorectal cancer
17	Lantus Solostar	Insulin analog (Insulin glargine)	Type 2 diabetes and type 1 diabetes
18	Lantus	Insulin analog (Insulin glargine)	Type 2 diabetes and type 1 diabetes
19	Lyrica	Pregabalin	Neuropathic pain
20	Diovan	Valsartan	Hypertension
21	Truvada	Tenofovir + Emtricitabine	HIV infection
22	Celebrex	Celecoxib	Osteoarthritis and rheumatoid arthritis
23	Epogen	Erythropoietin	Anemia
24	Herceptin	Trastuzumab	Breast cancer
25	Namenda	Memantine	Alzheimer disease
26	Gleevec, Glivec	Imatinib	Leukemia
27	Vyvanse	Lisdexamfetamine	Attention Deficit Disorder/Sleepiness
28	Suboxone	Buprenorphine	Acute Withdrawal Symptoms
29	Lucentis	Ranibizumab	Anemia
30	Synagis	Palivizumab	respiratory syncytial virus
31	Zetia	Ezetimibe	Cholesterol
32	Tamiflu	Oseltamivir	Influenza
33	Methylphenidate	Methylphenidate	Attention-deficit hyperactivity disorder
34	Symbicort	Budesonide + Formoterol	Asthma
35	One Touch Ultra		Diabetes testing supplies
36	Enoxaparin	Enoxaparin	Deep-vein thrombosis
37	AndroGel	Testosterone Gel	Low testosterone levels
38	Lidoderm	Lidocaine	Pain
39	Avonex	Interferon beta-1a	Multiple sclerosis
40	Levemir, Insulin detemir	Insulin detemir	Diabetes
41	Rebif	Interferon beta-1a	Multiple sclerosis
42	Novolog	Insulin aspart + Salbutamol	Chronic obstructive pulmonary disease
43	NovoLog FlexPen	Insulin aspart	Diabetes
44	Seroquel XR	Quetiapine	Schizophrenia, Bipolar Disorder
45	Viagra	Sildenafil	Erectile dysfunction
46	Nasonex	Mometasone	Allergic rhinitis
47	Niaspan	Niacin	Cholesterol
48	Humalog	Insulin lispro	Diabetes
49	Alimta	Pemetrexed	Non-small cell lung cancer
50	Budesonide	Budesonide + Formoterol	Asthma
51	Fenofibrate	Fenofibrate	Cholesterol
52	Lovaza	Darbepoetin alfa	lower very high triglyceride
53	Flovent HFA	Fluticasone	Asthma
54	Combivent	Ipratropium + Salbutamol	Chronic obstructive pulmonary disease
55	amphetamine/dextroamphetamine	amphetamine+dextroamphetamine	Attention Deficit Disorder/Sleepiness

56	ProAir HFA	Salbutamol	Chronic obstructive pulmonary disease, asthm
57	Cialis	Tadalafil	Erectile dysfunction
58	acetaminophen/hydrocodone	acetaminophen/hydrocodone + Formoterol	Asthma/analgesia
59	Isentress	Raltegravir	HIV Infection
60	Victoza	Liraglutide	Type 2 Diabetes
61	Procrit, Eprex	Erythropoietin	Anemia
62	Janumet	metformin + sitagliptin	type 2 diabetes
63	Neupogen	Filgrastim	Neutropenia
64	Reyataz	Atazanavir	HIV infection
65	Restasis	cyclosporine ophthalmic emulsion	Chronic Dry Eye and Inflammation
66	Metoprolol	Metoprolol	Hypertension
67	Gilenya	fingolimod	Multiple sclerosis
68	Incivek	Erythropoietin	Anemia
69	Prezista	Rabeprazole	Gastrointestinal disorders
70	VESIcare	Solifenacin Succinate	Overactive Bladder
71	Vytorin	Ezetimibe + Simvastatin	Cholesterol
72	hydrochlorothiazide/Valsartan	Valsartan/hydrochlorothiazide	Hypertension
73	Modafinil	Modafinil	Sleepiness
74	Orencia	Budesonide + Formoterol	Asthma
75	Pradaxa	Dabigatran Etexilate	Oral Anticoagulant
76	Renvela	Olmesartan	Hypertension
77	Dexilant	Dexlansoprazole	Gastrointestinal disorders
78	AcipHex, Pariet	Rabeprazole	Gastrointestinal disorders
79	Benicar, Olmetec	Olmesartan	Hypertension
80	Aranesp	Darbepoetin alfa	Anemia
81	Stelara	Ustekinumab	inflammatory disorders
82	Humalog KwikPen	Insulin lispro	Diabetes
83	Synthroid	Levothyroxine	Hypothyroidism
84	Evista	Raloxifene	Osteoporosis
85	Ventolin HFA	Levothyroxine	Hypothyroidism
86	Adderall XR	Amphetamine	Attention-deficit hyperactivity disorder
87	Betaseron, Betaferon	Interferon beta-1b	Multiple sclerosis
88	Atorvastatin	Atorvastatin	Cholesterol
89	doxycycline	doxycycline	infections
90	Lunesta	Eszopiclone	Insomnia
91	Fentanyl	Fentanyl	Pain
92	Zyvox	Linezolid	Bacterial infections
93	Xolair	Omalizumab	Allergic asthma
94	Xgeva	Denosumab	osteoporosis
95	Prevnar 13	vaccine	Pneumococcal disease
96	Sensipar	Sensipar	Secondary Hyperparathyroidism
97	Xeloda	Capecitabine	Cancer
98	omeprazole	omeprazole	Helicobacter pylori
99	Focalin XR	Dexmethylphenidate	Cancer
100	Benicar HCT	Olmesartane	high blood pressure
101	Actos	Pioglitazone	Type 2 diabetes
102	Varivax	Oka/Merck strain of live	Anemia
103	Eloxatin, Eloxatine	Oxaliplatin	Colorectal cancer
104	Zostavax	Zostavax	live vaccine
105	Gardasil, Silgard	Olmesartan	human papillomavirus
106	EpiPen 2-Pak	EpiPen 2-Pak	Anaphylaxis
107	Velcade	Tadalafil	Erythema nodosum leprosum
108	Pradaxa	Tadalafil	Erectile dysfunction
109	Erbitux	Cetuximab	Colorectal cancer
110	Protonix, Pantozol, Pantoloc	Pantoprazole	Gastrointestinal disorders

Appendix B: ISMP List of Confused Drug Names



Institute for Safe Medication Practices

ISMP's List of *Confused* Drug Names

This list of confused drug names, which includes look-alike and sound-alike name pairs, consists of those name pairs that have been published in the *ISMP Medication Safety Alert!*® and the *ISMP Medication Safety Alert!*® Community/Ambulatory Care Edition. Events involving these medications were reported to ISMP through either the ISMP National Medication Errors Reporting Program (ISMP MERP) or ISMP National Vaccine Errors Reporting Program (ISMP VERP). We hope you will use this list to determine which medications require special safeguards to reduce the risk of errors. This may include strategies such as: using both the brand and generic names on prescriptions and labels; including the purpose of the medication on prescriptions; configuring computer selection screens to prevent look-alike names from appearing consecutively; and changing the appearance of look-alike product names to draw attention to their dissimilarities. Both the FDA-approved and the ISMP-recommended tall man (mixed case) letters have been included in the list below.

Updated February 2015

Drug Name	Confused Drug Name
Abelcet	amphotericin B
Accupril	Aciphex
acetaZOLAMIDE	acetoHEXAMIDE
acetic acid for irrigation	glacial acetic acid
acetoHEXAMIDE	acetaZOLAMIDE
Aciphex	Accupril
Aciphex	Aricept
Activase	Cathflo Activase
Activase	TNKase
Actonel	Actos
Actos	Actonel
Adacel (Tdap)	Daptacel (DTaP)
Adderall	Inderal
Adderall	Adderall XR
Adderall XR	Adderall
ado-trastuzumab emtansine	trastuzumab
Advair	Advicor
Advicor	Advair
Advicor	Altocor
Afrin (oxymetazoline)	Afrin (saline)
Afrin (saline)	Afrin (oxymetazoline)
Aggrastat	argatroban
Aldara	Alora
Alkeran	Leukeran
Alkeran	Myleran
Allegra (fexofenadine)	Allegra Anti-Itch Cream (diphenhydrAMINE/allantoin)
Allegra	Viagra
Allegra Anti-Itch Cream (diphenhydrAMINE/allantoin)	Allegra (fexofenadine)
Alora	Aldara
ALPRAZolam	LORazepam
Altocor	Advicor
amantadine	amiodarone
Amaryl	Reminyl
Ambisome	amphotericin B
Amicar	Omacor

Drug Name	Confused Drug Name
Amikin	Kineret
aMILoride	amLODIPine
amiodarone	amantadine
amLODIPine	aMILoride
amphotericin B	Abelcet
amphotericin B	Ambisome
Anacin	Anacin-3
Anacin-3	Anacin
antacid	Atacand
Anticoagulant Citrate Dextrose Solution Formula A	Anticoagulant Sodium Citrate Solution
Anticoagulant Sodium Citrate Solution	Anticoagulant Citrate Dextrose Solution Formula A
Antivert	Axert
Anzemet	Avandamet
Apidra	Spiriva
Apresoline	Priscoline
argatroban	Aggrastat
argatroban	Orgaran
Aricept	Aciphex
Aricept	Azilect
ARIPiprazole	proton pump inhibitors
ARIPiprazole	RABEprazole
Arista AH (absorbable hemostatic agent)	Arixtra
Arixtra	Arista AH (absorbable hemostatic agent)
Asacol	Os-Cal
Atacand	antacid
atomoxetine	atorvastatin
atorvastatin	atomoxetine
Atrovent	Natru-Vent
Avandamet	Anzemet
Avandia	Prandin
Avandia	Coumadin
AVINza	INVanz
AVINza	Evista
Axert	Antivert
azaCITIDine	azaTHIOprine

** Brand names always start with an uppercase letter. Some brand names incorporate tall man letters in initial characters and may not be readily recognized as brand names. Brand name products appear in black; generic/other products appear in red.*

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ISMP's List of *Confused* Drug Names

Drug Name	Confused Drug Name
azaTHIOprine	azaCITIDine
Azilect	Aricept
B & O (belladonna and opium)	Beano
BabyBIG	HBIG (hepatitis B immune globulin)
Bayhep-B	Bayrab
Bayhep-B	Bayrho-D
Bayrab	Bayhep-B
Bayrab	Bayrho-D
Bayrho-D	Bayhep-B
Bayrho-D	Bayrab
Beano	B & O (belladonna and opium)
Benadryl	benazepril
benazepril	Benadryl
Benicar	Mevacor
Betadine (with providone-iodine)	Betadine (without providone-iodine)
Betadine (without providone-iodine)	Betadine (with providone-iodine)
Bextra	Zetia
Bicillin C-R	Bicillin L-A
Bicillin L-A	Bicillin C-R
Bicitra	Polycitra
Bidex	Videx
Brethine	Methergine
Bio-T-Gel	T-Gel
Brevibloc	Brevital
Brevital	Brevibloc
Brilinta	Brintellix
Brintellix	Brilinta
buPROPion	busPIRone
busPIRone	buPROPion
Capadex [non-US product]	Kapidex
Capex	Kapidex
Carac	Kuric
captopril	carvedilol
carBAMazepine	OXcarbazepine
CARBOplatin	CISplatin
Cardene	Cardizem
Cardizem	Cardene
Cardura	Coumadin
carvedilol	captopril
Casodex	Kapidex
Cathflo Activase	Activase
Cedax	Cidex
ceFAZolin	cefTRIAXone
cefTRIAXone	ceFAZolin
CeleBREX	CeleXA
CeleBREX	Cerebyx

Drug Name	Confused Drug Name
CeleXA	ZyPREXA
CeleXA	CeleBREX
CeleXA	Cerebyx
Cerebyx	CeleBREX
Cerebyx	CeleXA
cetirizine	sertraline
cetirizine	stavudine
chlordiazePOXIDE	chlorproMAZINE
chlorproMAZINE	chlordiazePOXIDE
chlorproMAZINE	chlorproPAMIDE
chlorproPAMIDE	chlorproMAZINE
Cidex	Cedax
CISplatin	CARBOplatin
Claritin (loratadine)	Claritin Eye (ketotifen fumarate)
Claritin-D	Claritin-D 24
Claritin-D 24	Claritin-D
Claritin Eye (ketotifen fumarate)	Claritin (loratadine)
Clindesse	Clindets
Clindets	Clindesse
clobazam	clonazePAM
clomiPHENE	clomiPRAMINE
clomiPRAMINE	clomiPHENE
clonazePAM	clobazam
clonazePAM	cloNIDine
clonazePAM	LORazepam
cloNIDine	clonazePAM
cloNIDine	KlonoPIN
Clozaril	Colazal
coagulation factor IX (recombinant)	factor IX complex, vapor heated
codeine	Lodine
Colace	Cozaar
Colazal	Clozaril
colchicine	Cortrosyn
Comvax	Recombivax HB
Cortrosyn	colchicine
Coumadin	Avandia
Coumadin	Cardura
Covaryx HS	Covera HS
Covera HS	Covaryx HS
Cozaar	Colace
Cozaar	Zocor
cyclophosphamide	cycloSPORINE
cycloSERINE	cycloSPORINE
cycloSPORINE	cyclophosphamide
cycloSPORINE	cycloSERINE
Cymbalta	Symbyax

** Brand names always start with an uppercase letter. Some brand names incorporate tall man letters in initial characters and may not be readily recognized as brand names. Brand name products appear in black; generic/other products appear in red.*

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ISMP's List of *Confused* Drug Names

Drug Name	Confused Drug Name
DACTINomycin	DAPTOmycin
Daptacel (DTaP)	Adacel (Tdap)
DAPTOmycin	DACTINomycin
Darvocet	Percocet
Darvon	Diovan
DAUNOrubicin	DAUNOrubicin citrate liposomal
DAUNOrubicin	DOXOrubicin
DAUNOrubicin	IDArubicin
DAUNOrubicin citrate liposomal	DAUNOrubicin
Denavir	indinavir
Depakote	Depakote ER
Depakote ER	Depakote
Depo-Medrol	Solu-MEDROL
Depo-Provera	Depo-subQ provera 104
Depo-subQ provera 104	Depo-Provera
desipramine	disopyramide
Desyrel	SEROquel
dexmethylphenidate	methadone
Diabenese	Diamox
Diabeta	Zebeta
Diamox	Diabenese
Diflucan	Diprivan
Dilacor XR	Pilocar
Dilaudid	Dilaudid-5
Dilaudid-5	Dilaudid
dimenhyDRINATE	diphenhydrAMINE
diphenhydrAMINE	dimenhyDRINATE
Dioval	Diovan
Diovan	Dioval
Diovan	Zyban
Diovan	Darvon
Diprivan	Diflucan
Diprivan	Ditropan
disopyramide	desipramine
Ditropan	Diprivan
DOBUTamine	DOPamine
DOPamine	DOBUTamine
Doribax	Zovirax
Doxil	Paxil
DOXOrubicin	DAUNOrubicin
DOXOrubicin	DOXOrubicin liposomal
DOXOrubicin	IDArubicin
DOXOrubicin liposomal	DOXOrubicin
Dulcolax (bisacodyl)	Dulcolax (docusate sodium)
Dulcolax (docusate sodium)	Dulcolax (bisacodyl)
DULoxetine	FLUoxetine

Drug Name	Confused Drug Name
Durasal	Durezol
Durezol	Durasal
Duricef	Ultracet
Dynacin	Dynacirc
Dynacirc	Dynacin
edetate calcium disodium	edetate disodium
edetate disodium	edetate calcium disodium
Effexor	Effexor XR
Effexor XR	Enablex
Effexor XR	Effexor
Enablex	Effexor XR
Enbrel	Levbid
Engerix-B adult	Engerix-B pediatric/adolescent
Engerix-B pediatric/adolescent	Engerix-B adult
Enjuvia	Januvia
ePHEDrine	EPINEPHrine
EPINEPHrine	ePHEDrine
epirubicin	eribulin
eribulin	epirubicin
Estratest	Estratest HS
Estratest HS	Estratest
ethambutol	Ethmozine
ethaverine [non-US name]	etravirine
Ethmozine	ethambutol
etravirine	ethaverine [non-US name]
Evista	AVINza
factor IX complex, vapor heated	coagulation factor IX (recombinant)
Fanapt	Xanax
Farxiga	Fetzima
Fastin (phentermine)	Fastin (dietary supplement)
Fastin (dietary supplement)	Fastin (phentermine)
Femara	Femhrt
Femhrt	Femara
fentaNYL	SUFentanil
Fetzima	Farxiga
Fioricet	Fiorinal
Fiorinal	Fioricet
flavoxATE	fluvoxaMINE
Flonase	Flovent
Floranex	Florinef
Florastor	Florinef
Florinef	Floranex
Florinef	Florastor
Flovent	Flonase
flumazenil	influenza virus vaccine
FLUoxetine	PARoxetine

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ISMP's List of *Confused* Drug Names

Drug Name	Confused Drug Name
FLUoxetine	DULoxetine
FLUoxetine	Loxitane
fluvoxaMINE	flavoxATE
Focalgin B	Focalin
Focalin	Focalgin B
Folex	Folxtx
folic acid	folinic acid (leucovorin calcium)
folinic acid (leucovorin calcium)	folic acid
Folxtx	Folex
fomepizole	omeprazole
Foradil	Fortical
Foradil	Toradol
Fortical	Foradil
gentamicin	gentian violet
gentian violet	gentamicin
glacial acetic acid	acetic acid for irrigation
glipiZIDE	glyBURIDE
Glucotrol	Glycotrol
glyBURIDE	glipiZIDE
Glycotrol	Glucotrol
Granulex	Regranex
guaiFENesin	guanFACINE
guanFACINE	guaiFENesin
HBIG (hepatitis B immune globulin)	BabyBIG
Healon	Hyalgan
heparin	Hespan
Hespan	heparin
HMG-CoA reductase inhibitors ("statins")	nystatin
HumaLOG	HumuLIN
HumaLOG	NovoLOG
HumaLOG Mix 75/25	HumuLIN 70/30
Humapen Memoir (for use with HumaLOG)	Humira Pen
Humira Pen	Humapen Memoir (for use with HumaLOG)
HumuLIN	NovoLIN
HumuLIN	HumaLOG
HumuLIN 70/30	HumaLOG Mix 75/25
HumuLIN R U-100	HumuLIN R U-500
HumuLIN R U-500	HumuLIN R U-100
Hyalgan	Healon
hydrALAZINE	hydrOXYzine
Hydrea	Lyrica
HYDROcodone	oxyCODONE
Hydrogesic	hydrOXYzine
HYDROmorphone	morphine
hydrOXYzine	Hydrogesic
hydrOXYzine	hydrALAZINE

Drug Name	Confused Drug Name
IDArubicin	DAUNOrubicin
IDArubicin	DOXOrubicin
Inderal	Adderall
indinavir	Denavir
inFLIXimab	riTUXimab
influenza virus vaccine	flumazenil
influenza virus vaccine	perflutren lipid microspheres
influenza virus vaccine	tuberculin purified protein derivative (PPD)
Inspra	Spiriva
Intuniv	Invega
INVanz	AVINza
Invega	Intuniv
iodine	Lodine
Isordil	Plendil
ISOtretinoin	tretinoin
Jantoven	Janumet
Jantoven	Januvia
Janumet	Jantoven
Janumet	Januvia
Janumet	Sinemet
Januvia	Enjuvia
Januvia	Jantoven
Januvia	Janumet
K-Phos Neutral	Neutra-Phos-K
Kaopectate (bismuth subsalcylate)	Kaopectate (docusate calcium)
Kaopectate (docusate calcium)	Kaopectate (bismuth subsalcylate)
Kadian	Kapidex
Kaletra	Keppra
Kapidex	Capadex [non-US product]
Kapidex	Capex
Kapidex	Casodex
Kapidex	Kadian
Keflex	Keppra
Keppra	Kaletra
Keppra	Keflex
Ketalar	ketorolac
ketorolac	Ketalar
ketorolac	methadone
Kineret	Amikin
KlonoPIN	cloNIDine
Kuric	Carac
Kwell	Qwell
LaMICtal	LamISIL
LamISIL	LaMICtal
lamiVUDine	lamoTRIgine
lamoTRIgine	lamiVUDine

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Drug Name	Confused Drug Name
lamoTRIgine	levETIRAcetam
lamoTRIgine	levothyroxine
Lanoxin	levothyroxine
Lanoxin	naloxone
lanthanum carbonate	lithium carbonate
Lantus	Latuda
Lantus	Lente
Lariam	Levaquin
Lasix	Luvox
Latuda	Lantus
Lente	Lantus
Letairis	Letaris [non-US product]
Letaris [non-US product]	Letairis
leucovorin calcium	Leukeran
leucovorin calcium	levoleucovorin
Leukeran	Alkeran
Leukeran	Myleran
Leukeran	leucovorin calcium
Levaquin	Lariam
Levbid	Enbrel
levETIRAcetam	lamoTRIgine
Levemir	Lovenox
levETIRAcetam	levOCARNitine
levETIRAcetam	levofloxacin
levOCARNitine	levETIRAcetam
levofloxacin	levETIRAcetam
levoleucovorin	leucovorin calcium
levothyroxine	lamoTRIgine
levothyroxine	Lanoxin
levothyroxine	liothyronine
Lexapro	Loxitane
Lexiva	Pexeva
liothyronine	levothyroxine
Lipitor	Loniten
Lipitor	ZyrTEC
lithium	Ultram
lithium carbonate	lanthanum carbonate
Lodine	codeine
Lodine	iodine
Loniten	Lipitor
Lopressor	Lyrica
LORazepam	ALPRAZolam
LORazepam	clonazePAM
LORazepam	Lovaza
Lotronex	Protonix
Lovaza	LORazepam

Drug Name	Confused Drug Name
Lovenox	Levemir
Loxitane	Lexapro
Loxitane	FLUoxetine
Loxitane	Soriatane
Lunesta	Neulasta
Lupron Depot-3 Month	Lupron Depot-Ped
Lupron Depot-Ped	Lupron Depot-3 Month
Luvox	Lasix
Lyrica	Hydrea
Lyrica	Lopressor
Maalox	Maalox Total Stomach Relief
Maalox Total Stomach Relief	Maalox
Matulane	Materna
Materna	Matulane
Maxzide	Microzide
Menactra	Menomune
Menomune	Menactra
Mephyton	methadone
Metadate	methadone
Metadate CD	Metadate ER
Metadate ER	Metadate CD
Metadate ER	methadone
metFORMIN	metroNIDAZOLE
methadone	dexmethylphenidate
methadone	ketorolac
methadone	Mephyton
methadone	Metadate
methadone	Metadate ER
methadone	methylphenidate
methadone	metolazone
Methergine	Brethine
methimazole	metolazone
methylene blue	VisionBlue
methylphenidate	methadone
metolazone	methadone
metolazone	methimazole
metoprolol succinate	metoprolol tartrate
metoprolol tartrate	metoprolol succinate
metroNIDAZOLE	metFORMIN
Mevacor	Benicar
Micronase	Microzide
Microzide	Maxzide
Microzide	Micronase
midodrine	Midrin
Midrin	midodrine
mifepristone	misoprostol

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Drug Name	Confused Drug Name
Miralax	Mirapex
Mirapex	Miralax
misoprostol	mifepristone
mitoMYcin	mitoXANtrone
mitoXANtrone	mitoMYcin
morphine	HYDROmorphone
morphine - non-concentrated oral liquid	morphine - oral liquid concentrate
morphine - oral liquid concentrate	morphine - non-concentrated oral liquid
Motrin	Neurontin
MS Contin	OxyCONTIN
Mucinex	Mucinex Allergy
Mucinex	Mucomyst
Mucinex Allergy	Mucinex
Mucinex D	Mucinex DM
Mucinex DM	Mucinex D
Mucomyst	Mucinex
Myleran	Alkeran
Myleran	Leukeran
nalbuphine	naloxone
naloxone	Lanoxin
naloxone	nalbuphine
Narcan	Norcuron
Natru-Vent	Atrovent
Navane	Norvasc
Neo-Synephrine (oxymetazoline)	Neo-Synephrine (phenylephrine)
Neo-Synephrine (phenylephrine)	Neo-Synephrine (oxymetazoline)
Neulasta	Lunesta
Neulasta	Neumega
Neulasta	Nuedexta
Neumega	Neupogen
Neumega	Neulasta
Neupogen	Neumega
Neurontin	Motrin
Neurontin	Noroxin
Neutra-Phos-K	K-Phos Neutral
NexAVAR	NexIUM
NexIUM	NexAVAR
niCARdipine	NIFEdipine
NIFEdipine	niCARdipine
NIFEdipine	niMODipine
niMODipine	NIFEdipine
Norcuron	Narcan
Normodyne	Norpramin
Noroxin	Neurontin
Norpramin	Normodyne
Norvasc	Navane

Drug Name	Confused Drug Name
NovoLIN	HumuLIN
NovoLIN	NovoLOG
NovoLIN 70/30	NovoLOG Mix 70/30
NovoLOG	HumaLOG
NovoLOG	NovoLIN
NovoLOG Flexpen	NovoLOG Mix 70/30 Flexpen
NovoLOG Mix 70/30 Flexpen	NovoLOG Flexpen
NovoLOG Mix 70/30	NovoLIN 70/30
Nuedexta	Neulasta
nystatin	HMG-CoA reductase inhibitors ("statins")
Occlusal-HP	Ocuflox
Ocuflox	Occlusal-HP
OLANZapine	QUEtiapine
Omacor	Amicar
omeprazole	famepizole
opium tincture	paregoric (camphorated tincture of opium)
Oracea	Orencia
Orencia	Oracea
Orgaran	argatroban
Ortho Tri-Cyclen	Ortho Tri-Cyclen LO
Ortho Tri-Cyclen LO	Ortho Tri-Cyclen
Os-Cal	Asacol
oxaprozin	OXcarbazepine
OXcarbazepine	oxaprozin
OXcarbazepine	carBAMazepine
oxyCODONE	HYDROcodone
oxyCODONE	OxyCONTIN
OxyCONTIN	MS Contin
OxyCONTIN	oxyCODONE
PACLitaxel	PACLitaxel protein-bound particles
PACLitaxel protein-bound particles	PACLitaxel
Pamelor	Panlor DC
Pamelor	Tambocor
Panlor DC	Pamelor
paregoric (camphorated tincture of opium)	opium tincture
PARoxetine	FLUoxetine
PARoxetine	piroxicam
Patanol	Platinol
Pavulon	Peptavlon
Paxil	Doxil
Paxil	Taxol
Paxil	Plavix
PAZOPanib	PONATinib
PEMEtrexed	PRALAtrexate
penicillin	penicillAMINE
penicillAMINE	penicillin

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Drug Name	Confused Drug Name
Peptavlon	Pavulon
Percocet	Darvocet
Percocet	Procet
perflutren lipid microspheres	influenza virus vaccine
Pexeva	Lexiva
PENTobarbital	PHENobarbital
PHENobarbital	PENTobarbital
Pilocar	Dilacor XR
piroxicam	PARoxetine
Platinol	Patanol
Plavix	Paxil
Plavix	Pradax [Non-US Product]
Plavix	Pradaxa
Plendil	Isordil
pneumococcal 7-valent vaccine	pneumococcal polyvalent vaccine
pneumococcal polyvalent vaccine	pneumococcal 7-valent vaccine
Polycitra	Bicitra
PONATinib	PAZOPanib
potassium acetate	sodium acetate
PRALAtrexate	PEMEtrexed
Pradax [Non-US Product]	Plavix
Pradaxa	Plavix
Prandin	Avandia
Precare	Precose
Precose	Precare
prednisoLONE	predniSONE
predniSONE	prednisoLONE
Prenexa	Ranexa
PriLOSEC	Pristiq
PriLOSEC	PROzac
Priscoline	Apresoline
Pristiq	PriLOSEC
probenecid	Procanbid
Procan SR	Procanbid
Procanbid	probenecid
Procanbid	Procan SR
Procardia XL	Protain XL
Procet	Percocet
Prograf	PROzac
propylthiouracil	Purinethol
Proscar	Provera
Protain XL	Procardia XL
protamine	Protonix
proton pump inhibitors	ARIPiprazole
Protonix	Lotronex
Protonix	protamine

Drug Name	Confused Drug Name
Provera	Proscar
Provera	PROzac
PROzac	Prograf
PROzac	PriLOSEC
PROzac	Provera
Purinethol	propylthiouracil
Pyridium	pyridoxine
pyridoxine	Pyridium
QUEtiapine	OLANZapine
quiNIDine	quiNINE
quiNINE	quiNIDine
Qwell	Kwell
RABEprazole	ARIPiprazole
Ranexa	Prenexa
Rapaflo	Rapamune
Rapamune	Rapaflo
Razadyne	Rozerem
Recombivax HB	Comvax
Regranex	Granulex
Reminyl	Robinul
Reminyl	Amaryl
Renagel	Renvela
Renvela	Renagel
Reprexain	ZyPREXA
Restoril	RisperDAL
Retrovir	ritonavir
Rifadin	Rifater
Rifamate	rifampin
rifampin	Rifamate
rifampin	rifaximin
Rifater	Rifadin
rifaximin	rifampin
RisperDAL	Restoril
risperiDONE	rOPINIRole
Ritalin	ritodrine
Ritalin LA	Ritalin SR
Ritalin SR	Ritalin LA
ritodrine	Ritalin
ritonavir	Retrovir
riTUXimab	inFLIXimab
Robinul	Reminyl
rOPINIRole	risperiDONE
Roxanol	Roxicodone Intensol
Roxanol	Roxicet
Roxicet	Roxanol
Roxicodone Intensol	Roxanol

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ISMP's List of *Confused* Drug Names

Drug Name	Confused Drug Name
Rozerem	Razadyne
Salagen	selegiline
SandIMMUNE	SandoSTATIN
SandoSTATIN	SandIMMUNE
saquinavir	SINEquan
saquinavir (free base)	saquinavir mesylate
saquinavir mesylate	saquinavir (free base)
Sarafem	Serophene
selegiline	Salagen
Serophene	Sarafem
SEROquel	Desyrel
SEROquel	SEROquel XR
SEROquel	Serzone
SEROquel	SINEquan
SEROquel XR	SEROquel
sertraline	cetirizine
sertraline	Soriatane
Serzone	SEROquel
silodosin	sirolimus
Sinemet	Janumet
SINEquan	saquinavir
SINEquan	SEROquel
SINEquan	Singulair
SINEquan	Zonegran
Singulair	SINEquan
sirolimus	silodosin
sitaGLIPtin	SUMAtriptan
sodium acetate	potassium acetate
Solu-CORTEF	Solu-MEDROL
Solu-MEDROL	Depo-Medrol
Solu-MEDROL	Solu-CORTEF
Sonata	Soriatane
Soriatane	Loxitane
Soriatane	sertraline
Soriatane	Sonata
sotalol	Sudafed
Spiriva	Apidra
Spiriva	Inspra
stavudine	cetirizine
Sudafed	sotalol
Sudafed	Sudafed PE
Sudafed 12 Hour	Sudafed 12 Hour Pressure + Pain
Sudafed 12 Hour Pressure + Pain	Sudafed 12 Hour
Sudafed PE	Sudafed
SUFentanil	fentaNYL
sulfADIAZINE	sulfaSALAzine

Drug Name	Confused Drug Name
sulfADIAZINE	sulfiSOXAZOLE
sulfaSALAzine	sulfADIAZINE
sulfiSOXAZOLE	sulfADIAZINE
SUMAtriptan	sitaGLIPtin
SUMAtriptan	ZOLMitriptan
Symbyax	Cymbalta
T-Gel	Bio-T-Gel
Tambocor	Pamelor
Taxol	Taxotere
Taxol	Paxil
Taxotere	Taxol
TEGretol	TEGretol XR
TEGretol	Tequin
TEGretol	TRENtal
TEGretol XR	TEGretol
Tenex	Xanax
Tequin	TEGretol
Tequin	Ticlid
Testoderm	Testoderm with Adhesive
Testoderm	Testoderm TTS
Testoderm with Adhesive	Testoderm
Testoderm with Adhesive	Testoderm TTS
Testoderm TTS	Testoderm
Testoderm TTS	Testoderm with Adhesive
tetanus diptheria toxoid (Td)	tuberculin purified protein derivative (PPD)
Thalomid	Thiamine
Thiamine	Thalomid
tiaGABine	tiZANidine
Tiazac	Ziac
Ticlid	Tequin
tiZANidine	tiaGABine
TNKase	Activase
TNKase	t-PA
Tobradex	Tobrex
Tobrex	Tobradex
TOLAZamide	TOLBUTamide
TOLBUTamide	TOLAZamide
Topamax	Toprol-XL
Toprol-XL	Topamax
Toradol	Foradil
t-PA	TNKase
Tracleer	Tricor
traMADol	traZODone
trastuzumab	ado-trastuzumab emtansine
traZODone	traMADol
TRENtal	TEGretol

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Drug Name	Confused Drug Name
tretinoin	**ISO**tretinoin
Tricor	Tracleer
tromethamine	Trophamine
Trophamine	tromethamine
tuberculin purified protein derivative (PPD)	influenza virus vaccine
tuberculin purified protein derivative (PPD)	tetanus diptheria toxoid (Td)
Tylenol	Tylenol PM
Tylenol PM	Tylenol
Ultracet	Duricef
Ultram	lithium
val**ACY**clovir	val**GAN**ciclovir
Valcyte	Valtrex
val**GAN**ciclovir	val**ACY**clovir
Valtrex	Valcyte
Varivax	VZIG (varicella-zoster immune globulin)
Vesanoid	Vesicare
Vesicare	Vesanoid
Vexol	Vosol
Viagra	Allegra
Videx	Bidex
vin**BLAS**tine	vin**CRIS**tine
vin**CRIS**tine	vin**BLAS**tine
Viokase	Viokase 8
Viokase 8	Viokase
Vioxx	Zyvox
Viracept	Viramune
Viramune	Viracept
Viramune (nevairapine)	Viramune (herbal product)
Viramune (herbal product)	Viramune (nevairapine)
VisionBlue	methylene blue
Vosol	Vexol
VZIG (varicella-zoster immune globulin)	Varivax
Wellbutrin SR	Wellbutrin XL
Wellbutrin XL	Wellbutrin SR
Xanax	Fanapt
Xanax	Tenex
Xanax	Zantac
Xeloda	Xenical
Xenical	Xeloda
Yasmin	Yaz
Yaz	Yasmin
Zantac	Xanax

Drug Name	Confused Drug Name
Zantac	Zyr**TEC**
Zavesca (escitalopram) [non-US product]	Zavesca (miglustat)
Zavesca (miglustat)	Zavesca (escitalopram) [non-US product]
Zebeta	Diabeta
Zebeta	Zetia
Zegerid	Zestril
Zelapar (Zydis formulation)	Zy**PREXA** Zydis
Zerit	Zyr**TEC**
Zestril	Zegerid
Zestril	Zetia
Zestril	Zy**PREXA**
Zetia	Bextra
Zetia	Zebeta
Zetia	Zestril
Ziac	Tiazac
Zocor	Cozaar
Zocor	Zyr**TEC**
ZOLMitriptan	**SUMA**triptan
zolpidem	Zyloprim
Zonegran	**SINE**quan
Zostrix	Zovirax
Zovirax	Doribax
Zovirax	Zyvox
Zovirax	Zostrix
Zyban	Diovan
Zyloprim	zolpidem
Zy**PREXA**	Cele**XA**
Zy**PREXA**	Reprexain
Zy**PREXA**	Zestril
Zy**PREXA**	Zyr**TEC**
Zy**PREXA** Zydis	Zelapar (Zydis formulation)
Zyr**TEC**	Lipitor
Zyr**TEC**	Zantac
Zyr**TEC**	Zerit
Zyr**TEC**	Zocor
Zyr**TEC**	Zy**PREXA**
Zyr**TEC**	Zyr**TEC**-D
Zyr**TEC** (cetirizine)	Zyr**TEC** Itchy Eye Drops (ketotifen fumarate)
Zyr**TEC**-D	Zyr**TEC**
Zyr**TEC** Itchy Eye Drops (ketotifen fumarate)	Zyr**TEC** (cetirizine)
Zyvox	Vioxx
Zyvox	Zovirax

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Appendix C:

MedAL (Medication Adherence and Literacy) Scale 2.0 Job Aid

(revised 7/25/2017)

This job aid will explain the new scale, how to assess patients, documentation, and who will be flagged for post-discharge follow up.

Goal: To better identify patients who would benefit most from post-discharge follow up due to low adherence and/or literacy by using a scale to risk stratify. Post discharge follow up may prevent a readmission if the patient understands their discharge medication instructions.

USING THE SCALE:

MedAL 2.0 uses an inverted scale to determine the patient's score through routine information gathered during a medication history.

- Scores range from 0-8
  - Lower scores are associated with better adherence and literacy
  - 0 = perfect adherence and high literacy
  - 8 = very poor adherence and low literacy
- Some questions are worth 2 points
- *All answers may be obtained during the normal course of the patient interview.
  - *It is not necessary to ask these specific questions
- Scores ≥ 3 identifies need for post-discharge follow up

Question	Answer	Pts
1. Do you ever forget to take your medications?	Yes	1
	No	0
2. How many times in the past week did you miss your scheduled medications?	≥ 2 times	2
	1 time	1
	Zero	0
3. Are there any reasons you intentionally take your scheduled medications differently than prescribed? Document reasons in flowsheet. Commons reasons for non-adherence: - Too many medications - Too many dosing times - Doesn't take when feeling well - Cost - Medications don't work - Side effects - Other	≥ 2 reasons	2
	1 reason	1
	Zero reasons/ Completely adherent	0
4. Estimate the degree of the patient's knowledge of their medications (name, dose, frequency, indication)?	Low (0-25%)	2
	Medium (26-75%)	1
	High (> 75%)	0
5. Does the patient need additional education? **Topics identified: _____**	Yes	1
	No	0

Adherence – Questions 1-3

- Question 1 addresses patients who *unintentionally* miss doses of their medication
- Question 2 helps quantify the degree of non-adherence
- Question 3 helps identify other reasons for non-adherence that may be *intentional*
    - The examples listed under question 3 are only examples, there may be other reasons not listed and it is not necessary to query about each reason.
    - *For reasons other than forgetting medications

Literacy – Question 4

- Assess the patient's overall understanding of their medications.
- Patients who are familiar with name, dose, frequency, and indication of all or most medications are considered high (>75%) and should receive 0 points.
- Patients who struggle to recall the four domains of medication literacy, but still demonstrate some understanding would be classified as having a medium level of literacy.
- Patients who are mostly unfamiliar with their medications should be marked as "low"

Education – Question 5

- This question should be marked "yes" if the patient has gaps in their medication knowledge that was not sufficiently addressed during the patient interview.
- If all gaps are discussed and you feel confident that the issue is resolved, this question can be marked "no"
- Examples of education topics: adherence, inhaler technique (steroids vs rescue), indications for medications

Example: Patient HM

HM reports taking amlodipine and Tums. When asked about amlodipine, HM says "Oh, I check my blood pressure every day, and I only take it when it's is over 140, but it was prescribed daily." When asked why she takes it that way, she replies, "It makes me constipated if I take it every day." When asked about the last dose, she states, "I took it either yesterday or the day before, but only once this week". Per HM, Tums is only as needed for heartburn, and she uses it about once a week.

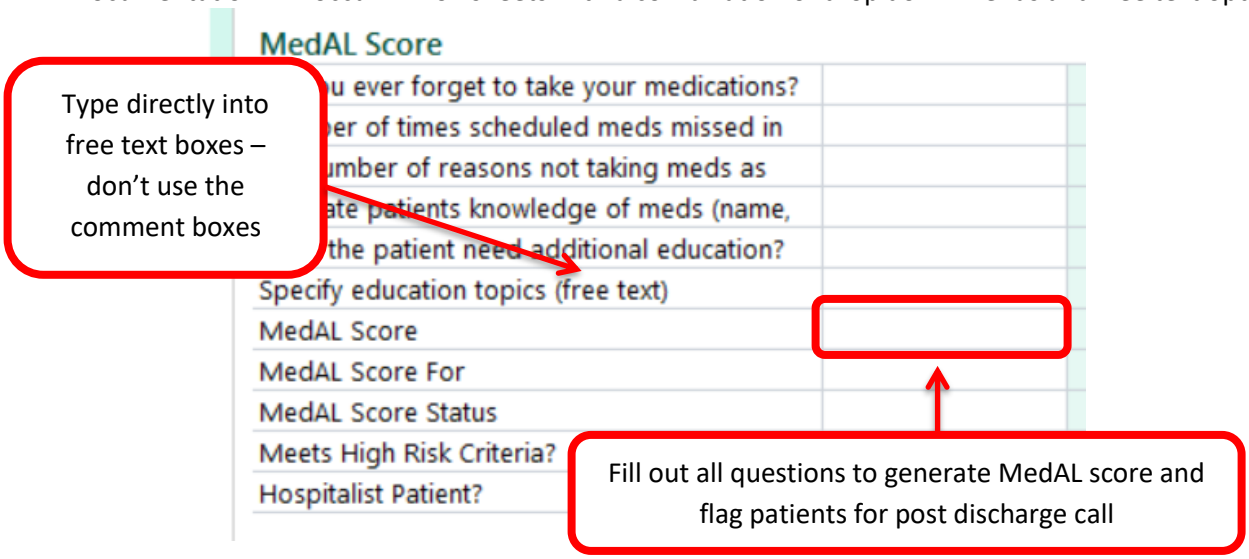
Scoring:

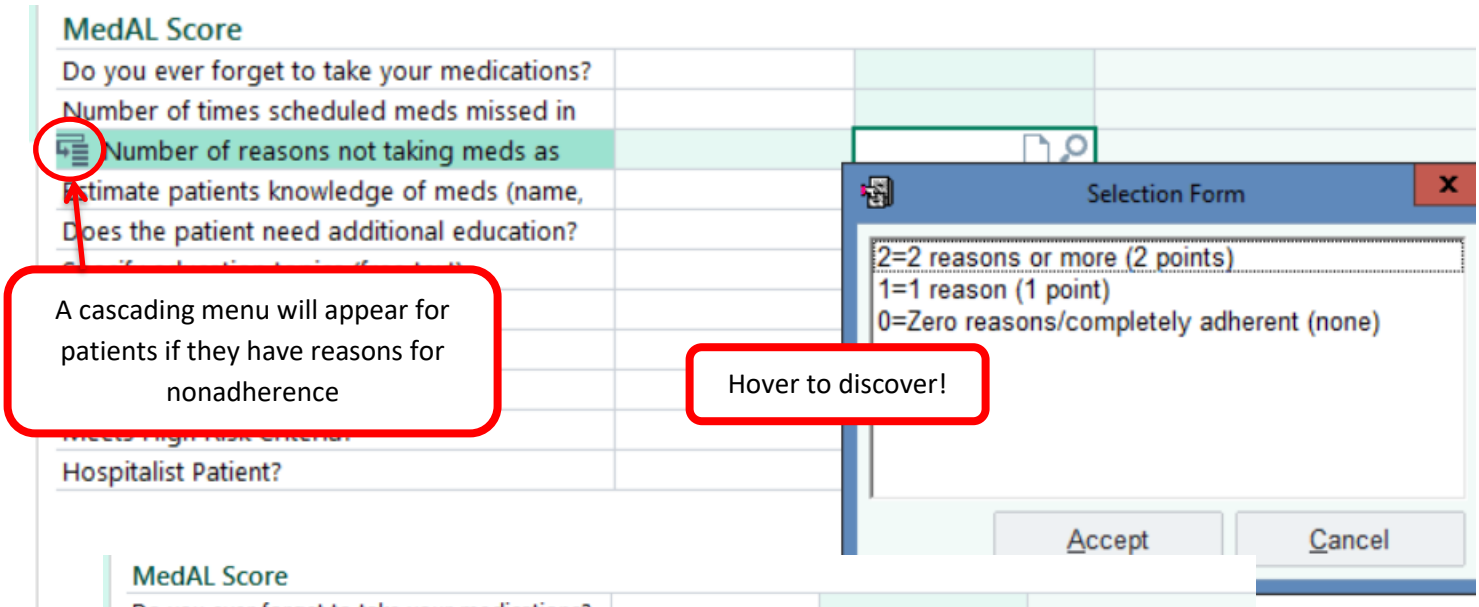
Question	Answer	Pts
1. Do you ever forget to take your medications? ***She did not mention unintentionally forgetting her medication.***	Yes	1
	No	0
2. How many times in the past week did you not take your scheduled medications? ***She only took amlodipine once this week.***	≥ 2 times	2
	1 time	1
	Zero	0
3. Are there any reasons you take your scheduled medications differently than prescribed? Document reasons in flowsheet. Commons reasons for non-adherence: - Too many medications - Too many dosing times - Doesn't take when feeling well - Cost - Medications don't work - Side effects - Other	≥ 2 reasons	2
	1 reason	1
	Zero reasons/ Completely adherent	0
4. Estimate the degree of the patient's knowledge of their medications (name, dose, frequency, indication)?	Low (0-25%)	2
	Medium (26-75%)	1
	High (> 75%)	0

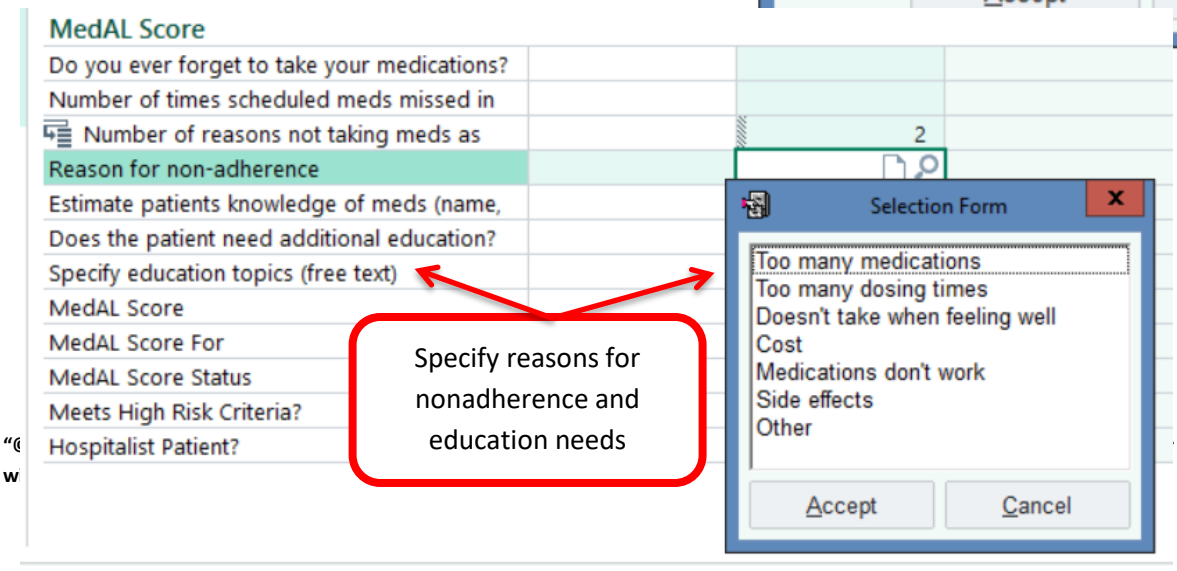
5. Does the patient need additional education? **Topics identified:** *Importance of blood pressure control and speaking with her doctor for alternatives if experiencing side effects to medications.*	Yes	1
	No	0

DOCUMENTATION:

Documentation will occur in Flowsheets with a combination of drop down menus and free text options.

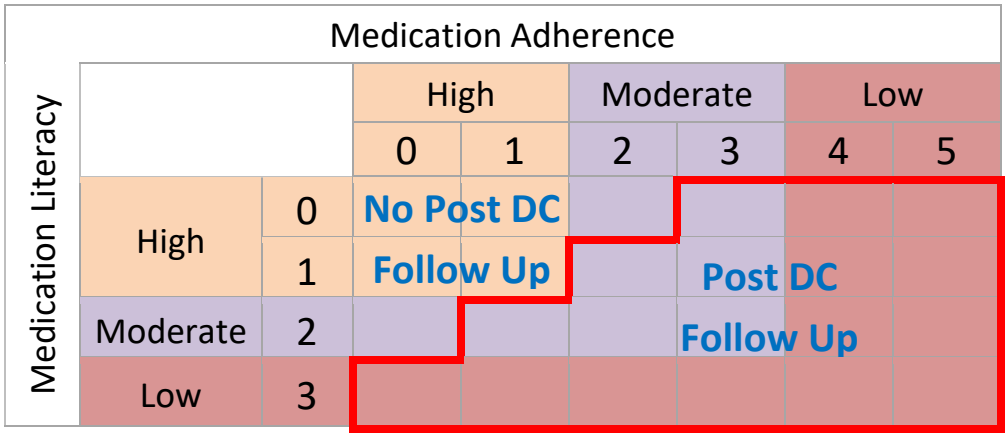






POST DISCHARGE FOLLOW UP:

Post discharge follow up will occur when patients receive a MedAL score ≥3.



Appendix D:

Improving the Patient Experience (IPE)
Script for Pharmacists and Technicians

I	**Introduction:** Establish rapport with the patient	Hello Mr./Mrs. _____ my name is Dr.__Rx/__. I'm a pharmacist working with your Dr.__MD/PCP and Nurse_____ to take care of you while you are at the hospital. I'm a pharmacist working with your Dr.__MD/PCP and Nurse_____ to take care of your discharge medications. I am a technician working with your Dr.__MD/PCP and Nurse_____ to take care of you while you are at the hospital. - "How would you like me to address you?" - If another individual is in the room, ask for permission to discuss their medications with the visitors - Verify date of birth (month, day, year) or other identifiers/wristband
P	**Purpose:** Explain your role to the patient	- I am here today to discuss a very important new medication. - I am here today to make sure that we have an accurate medication list and to ensure that all your medications are safe and effective. - Are you the primary person who takes care of your medications? Does anyone help you with the medications? Do you have a medication list or the bottles with you?
E	**Evaluate/Exit:** Assess patient's understanding by using the teach-back method. Be effective during your time with the patient and make sure to address the patient's needs	- Could you please tell me the medications that we talked about today? - Do you have any questions about your medications that we have not addressed? - Is there anything else I can do for you to make you comfortable? - Thank you so much for your time. - There is always a pharmacist here 24/7 in the hospital. Ask your nurse to contact me if you have any questions. - To ensure that you have your medications at discharge, we're happy to provide a service where our discharge pharmacy will be able to fill the medications for you. Our discharge pharmacists will be able to review the medications you are on in the hospital to ensure the medications that you should be continued on are provided to you. - You will be provided a list of your medications when you go home. Please make sure to always take your list with you and keep it updated.

Department of Pharmacy Services

Instructions: **Each trainee will be proctored for a minimum of two cases. Proctoring will continue until the trainee receives a "meets" in all categories in one case to successfully pass.**

Topic Being Evaluated	Case 1 Evaluation		Case 2 Evaluation	
	Need Improvement	Meets	Need Improvement	Meets
Patient Interaction Assessment				
1. Established rapport • Tailored approach based on patient's condition and social situation • Introduced self warmly and professionally • Correctly verified the identify of patient • Explained the purpose of visit • Used layman terms and avoided technical jargon				
2. Listened actively • Paid attention to both verbal and non-verbal cues • Made sure patient understood what was discussed • Asked open-ended questions				
3. ***Addressed the patient's feelings/needs/questions*** • Acknowledged and demonstrated interest • Answered patient's questions correctly • Addressed or triaged patient's medication concerns, feelings and needs • Triaged non-medication concerns to the appropriate healthcare provider				
4. Communicated in a professional manner • Was assertive and respectful; inspire confidence; appeared to have my interests at heart • Employed an effective exit strategy				
Medication History				
1. Gathered complete information • Evaluated available information (Surescripts, Cures, pt own med list) • Went over patient's medications one by one and assessed medication name, dose, route, frequency, and indication • Addressed any additional medications (e.g. critical OTCs only, herbals, eye drops, inhalers) • Contacted the patient's pharmacy to confirm medication(s) and refills for critical medications only				
2. Preferred Pharmacy • Asked patient if they would like to utilize AHSP pharmacy • Updated preferred pharmacy to reflect patient preference				
3. Medication Literacy and Adherence Stratification (MedAL) • Asked patient if anyone helps with their medications • Performed and documented MedAL score in CS Link				
4. Document medication list • Chose correct products • Left comments as needed • Accurately documented all critical medications				
5. Note • Completed medication history note for all patients • Note is concise and accurate. Recommendations, if any, were included				
6. Handoff • Provided handoff of medication history when applicable				

Overall impression: Please comment specifically on any part of the interaction that went well or the learner has room for improvement.

Evaluator Name/Signature _____ Date _____

Trainee Name/Signature_____ *Please turn in a copy to your manager*

Department of Pharmacy Services
Medication History Technician Training Checklist

Orient and in-service pharmacy technician to their daily functions and responsibilities. Initial competence will be assessed through direct observation by the training technician/ pharmacist/ manager. **This form needs to be completed within 90 days *from the date of hire or prior to independent staffing as the transitions of care technician*, and returned to your Manager.**

Trainee's Name:	Date:
Manager's Name:	Date:

In-service Initials & Date	Functions & Tasks
	CS Link
	• Launching/logging into the program • Navigating through CS Link • Identifying ISP-CHF Patients • Screening ISP Patients • Identifying ISP group • Identify where patient is admitted from • Identify whether patient is Foundation or Non-Foundation • Print Medication Reconciliation Report in CS Link for a patient
	Running Medal > 3 Report
	• Running report and entering patients into Share Point
	Physician Schedules
	• Log onto ISP MD schedule site • Print out MD schedule • Identify physician • Check emails for ISP/CHF and MD medication reconciliation referrals
	Interviewing Patients
	• Print the PTA medication list from CS link • Check patient's language preference; contact interpreter services • Check patient's chart prior to entering room. Look for patient own med list and/or pink copy of security log sheet • Introducing yourself to patient • Explain reason for visit • Ask if patient has list or bottles in room • Ask open ended questions

In-service Initials & Date	Functions & Tasks
	• Review all medications with patient (one by one): medication name, strength/dose, direction, indication • Ask about other medications: critical OTC medications, prescription creams, eye/ear drops, patches etc. • Re-ask questions regarding discrepancies found • Ask what pharmacy patient uses (multiple?) • Ask if patient has caregiver/home nurse who helps with medication management • Address any questions and refer to pharmacist
	Calling Outpatient Pharmacies
	• Introduce yourself • State reason for phone call • Ask pharmacy to fax medication list (3 months), if not: • Go over each medication one by one on the phone - Medication Name - Medication Strength - Medication Directions - Last Fill • Ask if you missed any other medication not mentioned • Requests for HIPPA Release - Printing out HIPPA Form - Request patient signature on HIPPA form - Filling out HIPPA Form
	Calling Patient's Caregiver/Family Member
	• Introducing yourself • State reason for phone call • Go over every medication with Caregiver/Family • Review other medications (e.g. critical OTCs, prescription patches, creams, ear/eye drops)
	CS Link Modifications
	• Add a new medication to the PTA med list • Modify a PTA medication • Delete/discontinue a PTA medication • Add notes to PTA medication based on interview
	Skilled Nursing Facility (SNF) Medication Reconciliation (ISP & ECP)
	• Stay up to date with emails RE: Discharges • Print After Visit Summary (AVS) • Call SNFs for Medication Administration Records (MAR) to be faxed • Reconcile AVS against SNF MAR • Write up summary of discrepancies • Identify which pharmacist will receive summary

In-service Initials & Date	Functions & Tasks
	SharePoint (SNF)
	• Adding SNF patients
	Miscellaneous
	• Voicemails • HIPPA/Fax Cover forms • Interpreter Services • Kronos • HIPPA compliance
	Competencies and Observations
	Completed IPE competency in Healthstream
	Demonstrate completion of at least 3 PTA medication list profiles entered/updated in CS Link
	Demonstrates ability to manage time (goal of 20 minute medication history)
	Passed the pharmacy technician medication history competency (Score: _____ Date completed: _____)
	Passed the Technician Medication History proctoring form

Employee Signature: _____

Manager signature: _____

Date: _____

CEDARS-SINAI

Transitions of Care Pharmacy Medication History Technician: Practical Exam

Technician Name: _____ Date: _____

Written Exam: Requires 90% to pass (2 attempts allowed). All answers are one (1) point (60 points total).

Familiarity with a Sample of the Top 200 medications including brand/generic names and indication.
Match the brand name with the generic name.

1) _____ Norvasc
2) _____ Lipitor
3) _____ Lovenox
4) _____ Seroquel
5) _____ Altace
6) _____ Percocet
7) _____ Lasix
8) _____ Coumadin
9) _____ Cozaar
10) _____ Lopressor
11) _____ Tylenol
12) _____ Colace
13) _____ Tenormin
14) _____ Flomax
15) _____ Plavix
16) _____ Prilosec
17) _____ Toprol XL
18) _____ Lexapro
19) _____ Amaryl
20) _____ Neurontin
21) _____ Advair
22) _____ Keppra
23) _____ Xarelto
24) _____ Coreg
25) _____ Valium

a) glimepiride
b) oxycodone/acetaminophen
c) clopidogrel
d) tamsulosin
e) amlodipine
f) diazepam
g) furosemide
h) levetiracetam
i) gabapentin
j) escitalopram
k) atorvastatin
l) rivaroxaban
m) warfarin
n) docusate sodium
o) omeprazole
p) fluticasone/salmeterol
q) atenolol
r) metoprolol succinate
s) carvedilol
t) losartan
u) ramipril
v) enoxaparin
w) acetaminophen
x) quetiapine fumarate
y) metoprolol tartrate

1) One indication for lisinopril is:
   a. High cholesterol
   b. High blood pressure
   c. Pain
   d. Depression

2) One indication for naproxen is:
   a. High cholesterol
   b. High blood pressure
   c. Pain
   d. Depression

3) One indication for atenolol is:
   a. High cholesterol
   b. High blood pressure
   c. Pain
   d. Depression

4) One indication for fluoxetine is:
   a. High cholesterol
   b. High blood pressure
   c. Pain
   d. Depression

5) One indication for atorvastatin is:
   a. High cholesterol
   b. High blood pressure
   c. Pain
   d. Depression

6) The generic name of Proventil is:
   a. ipratropium
   b. fluticasone
   c. formoterol
   d. albuterol

7) The generic name of Flonase is:
   a. ipratropium
   b. fluticasone
   c. formoterol
   d. albuterol

8) The generic name of Duragesic is:
   a. hydromorphone
   b. oxycodone
   c. fentanyl
   d. hydrocodone

9) The generic name of Wellbutrin is:
   a. sertraline
   b. citalopram
   c. bupropion
   d. fluoxetine

10) The generic name of Ambien is:
   a. zolpidem
   b. eszopiclone
   c. diphenhydramine
   d. clonazepam

11) The generic name of Flexeril is:
   a. metaxalone
   b. cyclobenzaprine
   c. acetaminophen
   d. fosphenytoin

12) The generic name of Levaquin is:
   a. levofloxacin
   b. lisinopril
   c. levetiracetam
   d. labetolol

11) The generic name of Prograf is:
   a. mycophenolate
   b. paroxetine
   c. pravastatin
   d. tacrolimus

12) The generic name of Zofran is:
   a. zolpidem
   b. olanzapine
   c. methotrexate
   d. ondansetron

13) The generic name of Zantac is:

a. ranitidine
b. zaleplon
c. risperidone
d. metoclopramide

14) An indication for metformin is:

a. Pain
b. Diabetes
c. Seizures
d. Infection

15) An indication for Advair is:

a. High cholesterol
b. Depression
c. COPD
d. Heart failure

16) An indication for amiodarone is:

a. Irregular heart beat
b. Asthma
c. Gout
d. High blood pressure

17) An indication for Xanax is:

a. Acid Reflux
b. Infection
c. Anxiety
d. Thyroid Disorder

18) An indication for Augmentin is:

a. COPD
b. High blood pressure
c. Diabetes
d. Infection

19) An indication for Synthroid is:

a. Thyroid disorder
b. Irregular heart beat
c. Heart failure
d. Pain

20) An indication for Coumadin is:

a. DVT
b. Infection
c. Anxiety
d. Asthma

21) Zetia belongs to which of the following drug classifications?

a. Loop diuretic
b. Analgesic
c. Anti-anxiety agent
d. Antihyperlipidemic

22) Which of the following medications is classified as a blood thinner?

a. Plavix
b. Vasotec
c. Metoprolol
d. Glipizide

23) Which of the following is the most appropriate dosing schedule for Ambien?

a. PRN
b. QAM
c. BID
d. HS

24) The generic name for Norco is:

a. Hydrocodone and Acetaminophen
b. Oxycodone and Acetaminophen
c. Tramadol and Acetaminophen

d. None of the above

25) Which of the following medication is commonly used to treat COPD?

a. Singulair b. Claritin
c. Flonase d. Spiriva

Understanding basics of medication histories

1. A patient tells you they take Colace prn. What other questions may you want to ask the patient?
   a. How often do you take it?
   b. When was the last time you took Colace?
   c. What do you take the Colace for?
   d. All of the above

2. A patient tells you they are allergic to penicillin. What other information should you collect from the patient?
   a. When it occurred
   b. What happened when they had the reaction
   c. Severity of the reaction
   d. All of the above

3. A patient tells you they take Lipitor 30 mg daily. What would be the most appropriate next question to ask?
   a. Do you take it every evening?
   b. What pharmacy do you get it filled at?
   c. What color is the tablet you take?
   d. How many tablets do you take?

4. Patient hands you a medication list including: oxycodone 5 mg 1-2 tabs Q4-6H PRN pain, Cymbalta 60 mg daily, aspirin 81 mg daily, amlodipine 10 mg daily, furosemide 80 mg daily, metformin 1000 mg BID, lisinopril 20 mg daily, simvastatin 10 mg daily. He said he was just at his doctor's office and everything is accurate except that his doctor told him to cut his fluid pill in half each day instead of taking the whole thing. The medication he should be cutting in half is:
   a. Cymbalta
   b. Furosemide
   c. Amlodipine
   d. Metformin

5. A patient mentions that his doctor told him to take a baby aspirin once a day for his heart. What dose of aspirin is the patient taking?
   a. 50mg
   b. 81 mg
   c. 162 mg
   d. 325 mg

6. You talk with a patient who provides you a medication list that includes furosemide 40 mg daily, ramipril 5 mg daily, Lipitor 80 mg daily, spironolactone 25 mg daily, glyburide 5 mg XL daily, metformin 1000 mg BID, vitamin B12 injections monthly, calcium citrate 500 mg BID, Plavix 75 mg

daily, omeprazole 20 mg daily. The patient says that her sugar has been so good that they stopped one of her diabetes medications. She does remember that she is still taking metformin. You know that the medication that was stopped was:

a. Furosemide
b. Ramipril
c. Glyburide
d. Plavix

7. You talk with a patient who tells you that he takes four medications. He does not know the names of them or have any of his bottles, but they are all white pills and he gets it from his pharmacy near his home. He is not accompanied by anyone. What is your next step?
    a. Record four white pills
    b. Document “unable to assess” in medication history
    c. Call patient’s pharmacy
    d. Talk to an emergency room physician

8. Which of the following is/are example(s) of an open-ended question?
    a. Are you still taking furosemide?
    b. What over the counter medications are you taking?
    c. Do you take metoprolol once a day?
    d. Did you bring a medication list with you?

9. Which of the following is NOT an example of a leading question?
    a. Do you take aspirin?
    b. Are you compliant with the medication directions on the bottle?
    c. What medications do you take for your pain?
    d. Have you ever taken medication not as prescribed?

10. When you first entered the room to ask a patient about his medications. He replies, ”I have already told two other people what I am taking”. What do you do?
    a. Handoff to the pharmacist that the nurse already recorded the patient’s medication history sheet
    b. Write “unable to assess” in the PTA medication history and quickly move to the next patient
    c. Write “Pharm Tech Entered” since it has recently been completed and handoff to the pharmacist
    d. Politely explain that while he may have told other people, you want to ensure that the correct medications were documented and proceed with your interview

Revised 12-2017

CEDARS-SINAI

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    c. How many tablets do you take?
    d. What color is the tablet you take?

4. Patient hands you a medication list including: oxycodone 5 mg 1-2 tabs Q4-6H PRN pain, Cymbalta 60 mg daily, aspirin 81 mg daily, amlodipine 10 mg daily, furosemide 80 mg daily, metformin 1000 mg BID, lisinopril 20 mg daily, simvastatin 10 mg daily. He said he was just at his doctor's office and everything is accurate except that his doctor told him to cut his fluid pill in half each day instead of taking the whole thing. The medication he should be cutting in half is:
    a. Cymbalta
    b. Furosemide
    c. Amlodipine
    d. Metformin

5. A patient mentions that his doctor told him to take a baby aspirin once a day for his heart. What dose of aspirin is the patient taking?
    a. 50mg
    b. 81 mg
    c. 162 mg
    d. 325 mg

6. You talk with a patient who provides you a medication list that includes furosemide 40 mg daily, ramipril 5 mg daily, Lipitor 80 mg daily, spironolactone 25 mg daily, glyburide 5 mg XL daily, metformin 1000 mg BID, vitamin B12 injections monthly, calcium citrate 500 mg BID, Plavix 75 mg daily, omeprazole 20 mg daily. The patient says that her sugar has been so good that they stopped

one of her diabetes medications. She does remember that she is still taking metformin. You know that the medication that was stopped was:

a. Furosemide
b. Ramipril
c. Glyburide
d. Plavix

7. You talk with a patient who tells you that he takes four medications. He does not know the names of them or have any of his bottles, but they are all white pills and he gets it from his pharmacy near his home. He is not accompanied by anyone. What is your next step?

a. Record four white pills
b. Document "unable to assess" in medication history
c. Call patient's pharmacy
d. Talk to an emergency room physician

8. Which of the following is/are example(s) of an open-ended question?

a. Are you still taking furosemide?
b. What over the counter medications are you taking?
c. Do you take metoprolol once a day?
d. Did you bring a medication list with you?

9. Which of the following is NOT an example of a leading question?

a. Do you take aspirin?
b. Are you compliant with the medication directions on the bottle?
c. What medications do you take for your pain?
d. Have you ever taken medication not as prescribed?

10. When you first entered the room to ask a patient about his medications. He replies, "I have already told two other people what I am taking". What do you do?

a. Handoff to the pharmacist that the nurse already recorded the patient's medication history sheet
b. Write "unable to assess" in the PTA medication history and quickly move to the next patient
c. Write "Pharm Tech Entered" since it has recently been completed and handoff to the pharmacist
d. Politely explain that while he may have told other people, you want to ensure that the correct medications were documented and proceed with your interview

Revised 12-2017

Denver Health Medication Transitions Team (MTT) Training												
Employee Name:												
Training Topic	**Person Responsible**	**Time (hr)**	**Discus-sion**	**On Line Module**	**Reading**	**Attest-ation**	**Check-list**	**Test**	**Compe-tency**	**Employee Sign Off Date**	**Date / Time**	**Location / Notes**
DH New Employee Orientation (NEO) / Start Date	HR	8	X									
Department Orientation (HR Checklist, DH & dept overview, Scheduling and PTO requests, Patient Experience, PSI reporting)	Manager	5	X				X					
DH Annual training, P&P reviews	Employee	8		X	X			X				
EPIC Self-study modules	Employee	4		X								
MARQUIS Toolkit self-study	Employee	4	X									
Medication Use/ Formulary/ P&T		1	X			X						
Outpatient Anticoag shadowing		2	X									
PCMH Pharmacist Shadowing		2	X									
Behavioral Health shadowing		4	X									
Top 200 medication list	Employee	2						X				
Pharmacy MTT Training: - Best Possible Medication History (BPMH) collection - Patient interviewing (Med History Collection) - Medical record documentation - Patient education - Health Literacy & Patient Interactions - Patient handoffs with other care providers - AIDET	MTT	120	X	X	X				X			
Total Hours Allocated to Training		**160**										

Last day of training:

Total Days of Training 20

Medication Transition Team Medication History Collection Competency *Denotes items that should always be met			
Name:	Date:		Reviewer:
Skill Assessment	**Met**	**Unmet**	**Comments**
Appropriately determine what patients to interview ED Track Board Floor patients (HMC complete, in progress, not started)			
Floor patients: determine primary team and if DC order in place (if DC order in place, does not work on)			
Preparation/ Chart Review	Goal: Obtain appropriate infor to minimize need to interview patient more that once		
*Review barriers: language, dementia, intubation, etc.			
Chart fully reviewed and appropriate information brought to room for starting point: Follows Medication History Collection Checklist: >Gather HPI, PMH, Living Situation >Review last encounter Medication List (Discharge or End of Visit) >Review at last Medicaiton History by MTT >Review appropriate Notes >Review Care Everywhere >Check Media tab >Use of Medications Activity			
*If appropriate, contact precautions are noted and performed prior to entering the room.			
*Hand hygiene performed prior to entering room.			
*Introduction: Acknowlege Introduce (name/ role) Duration of Med history interview Explanation of why conducting med history			
If visitors are present, offer to come back at a better time (allow patient to state it is OK to review meds with visitors present)			
*Interpreter services are offered if patient is non-English speaking			
Skill Assessment	**Met**	**Unmet**	**Comments**
Patient Interview			
*Patient/ caregiver asked for a med list and/ or bottles			
*Determine patient's current pharmacy(s) and preferred pharmacy for discharge prescriptions			
*Allergies and reactions confirmed			
*Determine who manages medications for patient. If someone other than the patient, ask if that person can be contacted.			
Asks the patient open-ended questions about what medications she or he is taking (i.e., doesn't read the list and ask if it is correct) > Aked about scheduled meds *(uses probing questions if needed)* > Asked about PRN meds > Asked about OTC meds >Asked about meds easy to forget (e.g. inhalers, nasal sprays, creams/ patches, ear/ eye drops, injectables, weekly/ monthly meds)			
Patient screened for adhereance - asked about missed doses for past week			
At end of interview, explain importance of carrying med list			
Any patient questions are addressed with appropriate responses. If drug information question, a pharmacist is consulted (if you are a technician)			
*Thank patient/ family at conclusion of interview			

*Performed hang hygiene upon leaving the room.			
Skill Assessment	**Met**	**Unmet**	**Comments**
Confirming the medication History			
*Uses at least two sources for medication history, ideally one provided by the patient and one from another "objective" source (e.g. EMR list, retail pharmacy history)			
Knows when to stop getting additional sources (e.g., if patient has a list or pill bottles and seems completely reliable and data are not that dissimilar from the other sources, and/or the differences can be explained)			
Knows when to get additional sources if available (e.g., if patient is not sure, relying on memory only or cannot resolve discrepancies among the various sources of medication information)			
When additional sources are needed, uses available sources first (e.g., pill bottles present), then obtains outside pharmacy data. If the medication history is still not clear: obtains outpatient provider lists, pill bottles from home and/or other sources.			
Uses resources to look up drug information when needed (pill identifiers, drug info handbook)			
*Returns to the patient to review any new information, resolves all remaining discrepancies			
Gets help from other team members when needed (MTT Pharmacist, provider, nurse)			
Medication history correctly documented, including standard phrasing in 'Comments' section			
*Issues requiring RPh review are triaged appropriately			
Knows how and when to communicate handoffs to IP care team (Providers, RN, Pharmacy)			
If performace step unmet, describe deficiencey and document Action Plan in Comments.			
Competence Certified by:			

DENVER HEALTH
Level One Care for ALL

Competency for Transitions of Care Medication Transition Specialists (Tech II)

Technician Name:_____

Manager Signature;_____

Date All Competencies Completed:_____

Systems Competencies

[ ] Completes required Cornerstone EPIC E-Learnings

Customer Service Competency

[ ] AIDET demonstrated in 3 patient interactions

[ ] Ongoing AIDET competency (3 patient interactions per quarter)

Case-Based Scenarios

[ ] Familiar with Denver Health policies and procedures as outlined in ToC training manual
- Achieves >80% correct on multiple choice questions

[ ] Familiar with Top 200 Medications, including brand, generic, common indications, and dosage forms
- Achieves >90% correct on matching questions
- Achieves >80% correct on multiple choice questions

[ ] Understands the basics of collecting the best possible medication list
- Achieves >80% correct on multiple choice questions
- Successfully obtains a best possible medication list in 2 case based scenarios (role play)

Demonstrated Skills Competency

[ ] Demonstrate selection of patients to interview
- Meet skills assessments for 3 patients

[ ] Demonstrate appropriate chart review
- Meet skills assessments for 3 patients

[ ] Demonstrate appropriate Patient Interview
- Meet skills assessment for 3 patients

[ ] Demonstrate appropriate verification of medication history
- Demonstrate completion of 2 outside pharmacy phone calls

[ ] Demonstrated appropriate documentation, communication and handoff
- Meet skills assessment for 3 patients

Ongoing Competency Assessments

[ ] Home Med Collection Quality Control (QC) Check
- Demonstrate 85% accuracy on random QC checks – 3 random QC checks per MTS per quarter

[ ] Able to efficiently manage time
- Goal of 1.6 medications histories per hour worked over a monthly basis

Version: 8/2016

Denver Health Policies & Procedures

1. A 56 Y/O M is admitted for an elective abdominal surgery. You interview the patient on 3B on post-op day 0, and collect the medication list below using 2-source verification. What additional information do you need in order to document this patient's anticoagulation medication history?
   Medication history obtained on day of admission
   - Amlodipine 5mg QD (last filled 5 weeks ago for 90-day supply)
   - Metoprolol Tartrate 25mg PO BID (last filled 5 weeks ago for 90-day supply)
   - Warfarin 2.5mg QPM (last filled 5 weeks ago for 90-day supply)
   - Enoxaparin 80mg Subcutaneous BID (filled 7 days ago for 14-day supply)
   - Multivitamin PO QD (OTC)
   - Vitamin D 50,0000 units once weekly on Mondays (last filled 3 weeks ago)

   a. No additional information is needed, triage to the pharmacist
   b. Need to determine when the patient's last dose of warfarin was taken
   c. Need to determine when the patient's first and last dose of enoxaparin were taken
   d. Need to determine when the patient's last dose of enoxaparin was taken
   e. B&D
   f. B&C

2. Which of the following is NOT a Denver Health High Risk Medication?
   a. Truvada
   b. Insulin Glargine
   c. Warfarin
   d. Methotrexate
   e. Heparin

3. Which of the following is an appropriate way of documenting medication information in the medical record?
   a. Insulin Glargine 45 U subcutaneous QHS
   b. Digoxin 0.25mg PO Daily
   c. Prednisone 5mg QOD
   d. Ergocalciferol 50,000 IU q week

4. True/ False: Patients have a right to Effective communication, in a manner the patient understands (including free interpreting and translation services) regardless of the language spoken, impairment, or disability.

5. During a medication history interview, a patient becomes frustrated with you stating "you people are not taking good care of me; I gave my medication list to 4 other people already". Which of the following are correct?
   a. Attempt to immediately resolve the issue by explaining the need for these steps to ensure safety
   b. Let the patient know that you are also frustrated and will contact the floor supervisor
   c. Explain to the patient that you are just doing your job and that you will notify the nurse manager regarding their frustration
   d. Explain to the patient that this is for their safety, and let them know that you will inform the nurse manager of their concern

6. Following your intervention in the above scenario, the patient becomes even more upset. Which of the following would be appropriate next steps?
   a. Contact your supervisor for further assistance
   b. Contact the nursing supervisor during non-traditional business hours

c. Contact the physician caring for the patient
d. Ask the patient to write a formal grievance letter
e. Contact the nurse taking care of the patient that shift
f. A&B
g. A&C
h. B&E

7. If you encounter a patient or visitor that you believe may be violent, you should do which of the following:
   a. Remove yourself from the situation if possible
   b. Call security (x55) immediately and report a combative person
   c. Inform the charge nurse or nurse manager
   d. All of the above
   e. None of the above

8. True/ False: Patient-inmates will receive the same standard of care that is provided to DHHA patients with the same/similar diagnosis or injury, including attempts to collect a PAML by pharmacy ToC staff

9. You prepare to conduct a patient interview for medication history, and upon going to the room you discover that the patient is on contact precautions. Which of the following are correct:
   a. Notify the physician team that pharmacy ToC will not be able to collect the medication history
   b. Review the standard precautions on the patient's door
   c. Since you will not have direct contact with the patient, you can enter the room as usual
   d. Using the signage on the patient's door, don the appropriate PPE and enter the room
   e. Ask the nurse to confirm patient's medication history the next time she/he is in the room

10. While conducting a patient interview, a patient mentions that they have a prescription from their neurology specialist at Kaiser who they saw two days ago. The patient did not have time to fill the prescription and was wondering if you could help get it filled here before they are discharged. What should you do?
    a. Bring the prescription to discharge pharmacy to be filled for the patient
    b. Bring the prescription to Webb pharmacy to be filled for the patient
    c. Tell the patient to bring the prescription over to the Webb pharmacy when they are discharged
    d. Notify the patient that DH pharmacies can only fill prescriptions orders written by DH providers

11. True/ False: For medications brought into the hospital by patients, nursing is responsible for ensuring chain of custody between the patient or their representative and pharmacy.

12. Who is responsible for reporting a patient safety event using the organization's PSI system?
    a. Managers and supervisors only
    b. Physicians and nurses
    c. Patient Safety & Quality staff
    d. All DH employees

Top 200 Medications

1. Which of the following medications comes in two different formulations (i.e. if you are interviewing a patient or verifying prescriptions with a pharmacy, which of the following medications would be important to verify the specific formulation taken)?
   a. Spironolactone
   b. Crestor
   c. Metoprolol
   d. Meloxicam

2. Which of the following medications does **NOT** correspond with a correct common indication?
   a. Promethazine → nausea
   b. Ziprasidone → diuretic
   c. Chlorthalidone → diuretic
   d. Risperidone → antipsychotic

3. The generic name for Advair HFA is:
   a. Budesonide
   b. Fluticasone
   c. Budesonide/ Formoterol
   d. Fluticasone/ Salmeterol

4. Which of the following is not a common indication for Amitryptyline?
   a. Itching
   b. Neuropathy
   c. Insomnia
   d. Pain

5. Which of the following medications is used for blood pressure/ hypertension?
   a. Trazodone
   b. Amlodipine
   c. Hydroxyzine
   d. Cetirizine

6. Which of the following medications is not used to treat depression/ mood disorders?
   a. Clonidine
   b. Fluoxetine
   c. Venlafaxine
   d. Mirtazapine

7. Which of the following medications is available in both immediate release and extended release formulations?
   a. Lisinopril
   b. Quetiapine
   c. Clonazepam
   d. Olanzapine

8. Which of the following is an antibiotic medication?
   a. Tiotropium
   b. Aripiprazole
   c. Topirimate
   d. Levofloxacin

9. An indication for Metformin is:
   a. Pain
   b. Diabetes
   c. Seizures
   d. Infection

10. An indication for Xanax is:
    a. Acid reflux
    b. Anxiety
    c. Thyroid Disorder
    d. Hypertension

11. An indication for Coumadin is:
    a. DVT
    b. Infection
    c. Anxiety
    d. Asthma

12. One indication for Crestor is:
    a. High blood pressure
    b. High cholesterol
    c. Depression
    d. Pain

13. The generic name for Zantac is:
    a. Fluoxetine
    b. Bisacodyl
    c. Ranitidine
    d. Omeprazole

14. Which of the following medications is available as regular and extended release?
    a. Lamotrigine
    b. Tamsulosin
    c. Prednisone
    d. Atenolol

Version: 8/2016

15. Which of the following is one indication for Topiramate?
    a. Headache
    b. Insomnia
    c. Hypertension
    d. Muscle spasms

16. Which of the following Insulin formulations should always be scheduled with a meal?
    a. Insulin Detemir (Levemir)
    b. Insulin Glargine (Lantus)
    c. Humulin N (NPH)
    d. Humulin 70/30

17. Which of the following medications is not an antibiotic
    a. Clindamycin
    b. Clarithromycin
    c. Bactrim
    d. Sumatriptan

18. What is one indication for Allopurinol?
    a. Chronic pain
    b. Gout
    c. Diabetes
    d. Neuropathy

19. Which of the following medication can be used to treat seizure disorder
    a. Trazodone
    b. Flexeril
    c. Sertraline
    d. Levetiracetam

20. Which of the following medications does **NOT** correspond with a correct common indication?
    a. Doxycycline → Infection
    b. Glipizide → Diabetes
    c. Spironolactone → Heart failure
    d. Fluconazole → Mood disorder

Match the generic names (a-t) to the brand name

1. _____ Norvasc
2. _____ Lipitor
3. _____ Lovenox
4. _____ Seroquel
5. _____ Synthroid
6. _____ Percocet
7. _____ Lasix
8. _____ Coumadin
9. _____ Cozaar
10. _____ Lopressor
11. _____ Colace
12. _____ Ultram
13. _____ Flomax
14. _____ Plavix
15. _____ Zocor
16. _____ Voltaren
17. _____ Zestril
18. _____ Neurontin
19. _____ Advair
20. _____ Keppra

a. simvastatin
b. oxycodone/acetaminophen
c. clopidogrel
d. tamsulosin
e. amlodipine
f. furosemide
g. levetiracetam
h. gabapentin
i. levothyroxine
j. atorvastatin
k. warfarin
l. docusate
m. lisinopril
n. fluticasone/salmeterol
o. diclofenac
p. losartan
q. tramadol
r. enoxaparin
s. metoprolol Tartrate
t. quetiapine

1. During an interview in the ED, a patient tells you "I take lithium 300 twice a day." Which of the following choices is best practice for an accurate home medication list?
    a. Ask the patient if their lithium is a tablet or a capsule
    b. Enter "lithium 300mg take 1 oral twice a day" on the home medication list
    c. Determine the patient's pharmacy and call to verify tablet or capsule
    d. A&C

2. At the conclusion of a patient interview, a patient says "Oh yeah, I get my rescue inhaler at Walgreens." Walgreens tells you that the patient filled a Spiriva last month and a Proair last year.
    a. Return and ask the patient if the inhaler is called Spiriva
    b. Enter Proair on the list
    c. Enter Spiriva on the list
    d. None of the above

3. You talk with a patient who tells you that he takes four medications. He does not know the names of them or have any of his bottles, but they are all white pills. He is not accompanied by anyone. What is your next step?
    a. Record four white pills
    b. Write "unable to collect" in medication history
    c. Call patient's pharmacy
    d. Talk to the care team

4. Which of the following is an example of a leading question?
    a. Do you take aspirin?
    b. What supplements do you take?
5. When you first entered the room to ask a patient about his medications. He replies "I have already told two other people what I am taking". What do you do?
    a. Record the medications from the triage note into the electronic home medication list
    b. Write "unable to collect" in medication history and quickly move to the next patient
    c. Ask the patient what pharmacy they use, and confirm the previously collected list with the fill history
    d. Politely explain that while he may have told other people, you want to ensure that he has the correct medications on his list, as this is to ensure his safety, and proceed with your interview

6. You enter a room the ED to talk to a patient, who quickly provides you with their hand written medication list that includes furosemide 40 mg daily, lisinopril 5 mg daily, Lipitor 80 mg daily, spironolactone 25 mg daily, glyburide 5 mg XL daily, metformin 1000 mg BID, vitamin B12 injections monthly, calcium citrate 500 mg BID, Plavix 75 mg daily, omeprazole 20 mg daily. What are your next steps?
    a. Ignore the list as it is likely incorrect then proceed with the patient interview
    b. Thank the patient for keeping a current list and proceed with the patient interview, reviewing each medication with the patient and using open ended questions to identify discrepancies or omissions
    c. Ask to make a copy of the list and then enter the medications into the electronic home medication list
    d. Thank the patient for keeping a current list and ask what pharmacy they use so that you can call to verify the prescription fill history

7. Upon completing a thorough medication history for patient MF, a 45 y/o M with a history of hypertension, COPD, and cirrhosis you discover that he has been taking his inhalers more frequently than prescribed. He tells you that he recently increased his Advair to 2 puffs about 4 times per day, and has started using his Spiriva 2 times per day because he felt a COPD flare up coming on. What do you do?
    a. Document the medications exactly as the patient states he is taking them
    b. Document the medications as they are prescribed; add an additional note about how he is taking them
    c. Contact the care team to inform them of the findings and discuss with the doctor the best way to document the medication history

d. Go get the pharmacist and have them talk to the patient and document the medication list
e. None of the above

8. You complete a medication history interview with CB, a 54 y/o F with a history of diabetes, major depressive disorder, and fibromyalgia. During the interview, the patient appeared to be a good historian and was able to name all of her medications and doses (Cymbalta 60mg QD, Metformin 1000mg BID, Flexeril 10mg qHS as needed, Norco 5/325mg QD as needed, Mirtazapine 15mg qHS, and Caclium BID). The patient also tells you that she recently started something new a couple days ago, but she isn't sure of the name and dosage. What is the most appropriate next steps?
   a. Ask the patient if she can call a family member to get her prescription bottles from home and bring them in so that you can complete the list
   b. Ask the patient what pharmacy/ pharmacies she uses and contact the pharmacy to verify her medication list, including the new medication
   c. Ask the pharmacist to run a PDMP report to determine what pharmacy/ pharmacies the patient uses; contact the patient's pharmacy to verify her medication list
   d. Ask the patient who prescribed the new medication and contact the doctor's office to determine what the new medication/ dose is

9. In the above scenario, you discover that the patient last filled her Mirtazapine 5 months ago for a 90-day supply. Which of the following best describes your next steps?
   a. Call MHCD to see if she has been filling her Mirtazapine at that pharmacy
   b. Return to the patient and attempt to clarify the discrepancy
   c. Document the medication list as the patient stated, adding an additional note about the Mirtazapine
   d. Document the medication list, leaving the Mirtazapine off the list

10. Which of the following is "best practice" for initiating a patient medication history interview?
    a. Enter the room with a recent list of the patient's medications that you found in the chart and ask the patient to review the list to confirm it is correct
    b. Acknowledge the patient and ask the family to leave the room so that you can obtain an accurate medication history from the patient
    c. Enter the patient's room, introduce yourself, and ask the patient for their mediation list
    d. Acknowledge the patient/ family and introduce yourself, explaining the purpose of your interview and an estimate of how long it should take

11. Which of the following is an example of an open ended question:
    a. Do you usually take your Aspirin in the morning?
    b. What medications do you take only sometimes or as needed?
    c. Are you still taking your Naproxen prescription that was filled last month?
    d. Do you take your prescription medications every day as directed?

12. You enter the room of patient RB, a 68 y/o M with a history of COPD, Hypertension, Diabetes, and Seizure Disorder. You use the AIDET tool and proceed to ask him what medications he takes on a regular basis when at home. The patient states "I don't know I take so many I can't keep them all straight". You have an outpatient medication list from 3 months prior. Which of the following best describes your next steps?
    a. Ask the patient what pharmacy he uses and verify the prescription fill history against the list you have
    b. Use the patient's past history and ask probing questions about medicines he takes
    c. Read off the medications on the outpatient list and ask the patient to confirm what meds he takes
    d. Document the list as "In progress" and leave a note for the next shift to follow up when family is present

DENVER HEALTH
Level One Care for ALL

Job Description
Non-Management (Patient Care)

Revised Title 01/27/2016

Job Title: Medication Transitions Pharmacist		**Mgt Approval/Date:** T. Vlasimsky 5-20-15
Department: ACS Pharmacy Clinical Support		**HR Approval/Date:** M Vanatta 5-20-15
Job Code: DOOH3059	**FLSA Status:** Non-exempt	**Salary Class:** H - Hourly
EEO4 Code: 02-Professional	**HR Occ Class:** 690 Pharmacy	**Job Class:** CPT
Reports To (Job Title): Associate Director of Ambulatory Clinical Pharmacy Services		**Grade Sch:** FixedRate

The following statements are intended to describe the general nature and level of work being performed by people assigned to this job. They are not intended to be an exhaustive list of all responsibilities, duties, and skills required of personnel so classified.

JOB SUMMARY: Under minimal supervision, the Medication Transitions Pharmacist will serve on the Medication Transitions Team (MTT). The MTT Pharmacist will support medication transitions for patients during hospital admissions and discharge with the goal to minimize medication errors that can occur during these care transitions for patients. Clinical and technical knowledge will be utilized to document complete and accurate medication lists, and to provide discharge clinical pharmacy services as needed and appropriate. The MTT Pharmacist will collaborate with other departments and ACS clinics to provide pharmacy-related information and assist with patient care coordination as needed. The MTT Pharmacist will provide oversight of the Medication Transition Specialists (MTS).

MINIMUM QUALIFICATIONS:

Education: Bachelor's Degree in Pharmacy required, PharmD preferred.

Experience: At least one year of experience in the provision of patient care in an ambulatory, inpatient or retail setting. Completion of a PGY 1 Pharmacy Practice residency is preferred.

Knowledge, Skills & Abilities: Broad pharmacotherapy knowledge for understanding patient medication therapy needs, and identify/addressing medication transition issues. Strong communication and active listening skills. Ability to work effectively as a team member. Excellent oral communication skills with patients and team members, plus demonstrated customer service skills. Attention to detail with good critical thinking and problem solving skills. Good organization skills and experience with computer applications, including Microsoft office products. Demonstrates enthusiasm and initiative in performing job duties.

Certificate/License/Registration: Eligible for licensure by the State of Colorado Board of Pharmacy Registration at the time of hire. All Certifications and Licenses required for this job must be kept current as a condition of continued employment.

ESSENTIAL DUTIES & RESPONSIBILITIES: List each job duty and responsibility that is essential to performing the job successfully, efficiently and safely.

90% Patient-specific medication transitions of care activities:

- Conducts patient and/or caregiver interviews, in person and by phone, to obtain accurate and complete information related to medication lists, allergies, and immunizations in an efficient and timely manner.
- Contacts outside pharmacies and providers as needed to clarify home medication lists and assist with medication transitions of care.
- Documents all patient activities in the patient's medical record with accuracy, thoroughness, and attention to detail.
- Communicates with other members of the healthcare team information relevant to home medication lists, including assessment of medication compliance.
- Performs discharge medication transition of care services as developed and implemented.

- Demonstrates sound problem solving/decision making skills with practical, efficient, economical, and reasonable solutions
- Provides assistance in the following areas: formulary or preferred agents, evidence-based medicine, drug information for providers and patients, drug interaction screening, medication profile review, referrals for post-discharge care.
- Provides medication counseling to patients.
- Problem-solve medication related issues in a timely manner as they arise.
- Handles and triages inquiries from providers, pharmacists and pharmacies.
- Practice excellent customer service towards patients, providers, and pharmacies.
- Assist with collecting data to monitor program effectiveness, team productivity and performance reporting.
- Establishes a presence and working relationship with nursing staff and providers involved in the care of Denver Health patients.

5% Identifies and supports clinical and/or operational quality improvement opportunities.

- Assists with activities to document work done by the MTT team to support process and quality improvement efforts.
- Identifies and suggests recommendations for process improvement including areas of cost effectiveness and efficiency.
- Reports and follows up on medication/patient safety issues as needed; works to resolve problems in a manner that will improve patient safety and team efficiency.
- Reports medication events (adverse drug reactions and medication errors) using the organizations' event reporting system.
- Understands patient safety goals, core measures, and other quality metrics that affect area of practice; assists in development of programs that ensure compliance with these measures.

4% Enhances personal and coworkers' professional growth and development.

- Completes and meets the competency standards including education and training that is specific to the patient populations and practice site served. Keeps job knowledge current.
- Assists in the training of the MTT team members as appropriate.
- Provides education and training: serves as a preceptor for pharmacy residents, pharmacy interns, pharmacy students on rotation at Denver Health.
- Attends and participates in assigned committees or workgroups, departmental meetings, in-services, huddles, and departmental trainings as applicable.
- Identifies opportunities for learning and training to advance own professional competence.
- Other duties as assigned

- Ensures that all legal and professional pharmacy requirements are adhered to. Maintains compliance with Joint Commission and/or other government regulatory standards applicable to area of practice. Maintains an active pharmacist license in good standing to practice in the State of Colorado. Maintains continuing education requirements for licensure.

- Promotes positive interpersonal (customer) relationships with fellow employees, physicians, patients and visitors. Treats these individuals with courtesy, dignity, empathy and respect; consistently displays courteous and respectful verbal and non-verbal communications.

- Adheres to, complies with and demonstrates support for the mission and values of Denver Health. Supports and adheres to the Denver Health Dozen.

- Ensures confidentiality of patient information by creating and maintaining a secure and trusting environment by not sharing information learned on the job, except when necessary in the performance of the job responsibilities or to improve a patient's care.

- Adheres to Denver Health and departmental attendance guidelines.

For Patient Care Positions:

- Ensures all duties, responsibilities and competencies are conducted in a manner that is effective and appropriate to patients/clients to whom care/service is being provided.

- Demonstrates knowledge and applicability of the principles of growth and development over the life span, as well as demonstrating the ability to assess data reflecting the patient's status and interpreting appropriate cultural information of the patient(s) to whom care/ services is being delivered/provided.

- Employee has completed and met their clinical competency standards.

NON-ESSENTIAL DUTIES & RESPONSIBILITIES: This section should include any job duties considered marginal or not essential to the purpose of the job. *If 5% or more, provide a list of non-essential duties being performed.*

1% Performs other duties as assigned.

ADMINISTRATIVE RESPONSIBILITIES: *Check the item(s) that are administrative responsibilities of this position, if applicable:* ☐ **Not Applicable** ☒ **Instructing** ☒ **Assigning Work** ☒ **Reviewing Work**
☐ **Assessing Performance** ☐ **Hiring/Terminating** ☐ **Disciplining**

DEGREE OF SUPERVISION RECEIVED: ☐ Close ☐ General ☒ Minimal

PERSONNEL SUPERVISED (Titles and Approximate Numbers)**:** ☒ None

INTERNAL/EXTERNAL CONTACTS: DH employees, patients and caregivers, outside pharmacies/providers

POPULATION SPECIFIC STAFF: ☒ Yes ☐ No
*(Check YES, if this job **requires** interaction with patients, families, and/or visitors. If YES, complete the population specific competencies at the employee's home department.)*

ADA CHECKLIST – Select the following requirements that are essential (not marginal) for the incumbent to perform this job successfully, efficiently and safely.

Physical and Mental Requirements: Place the appropriate "Amount of Time" code for each of the following: **0 = None; 1 = less than 1/3; 2 = 1/3 to 2/3; and 3 = more than 2/3**			
PHYSICAL: 1 Lifting < 10 lbs - Light 1 Lifting 10 - 20 lbs - Light-Med 1 Lifting 21 – 40 lbs - Medium 0 Lifting 41 – 80 lbs- Med Heavy 0 Lifting 81 – 120 lbs - Heavy 0 Lifting > 120 lbs – Very Heavy 1 Pushing/Pulling < 20lbs 1 Push/Pull 20 – 50 lbs 0 Other: Describe:	***ACTIVITIES:*** 2 Sitting 3 Standing 1 Bending 1 Kneeling 1 Squatting 2 Walking (Distance) 1 Climbing (Steps, etc.) 2 Reaching (overhead, extensive, repetitive) 0 Other:	***MENTAL/SENSORY:*** 3 Strong Recall 3 Reasoning 3 Problem Solving 3 Hearing 3 Seeing/Sight 3 Talk/Speak Clearly 3 Write legibly 3 Reading 3 Concentration 3 Logical Thinking 0 Other:	***EMOTIONAL:*** 3 Fast pace environment 3 Steady pace 3 Able to handle multiple priorities 3 Frequent & intense customer interactions 3 Able to adapt to frequent change 3 Works under deadlines 3 Process complex info 3 Works as part of a team

Environmental Requirements: Place the appropriate "Amount of Time" code for each of the following: **0 = None; 1 = less than 1/3; 2 = 1/3 to 2/3; and 3 = more than 2/3**		
2 Blood and body fluids 2 Biohazards (e.g., bacteria, funguses, viruses) 0 Radiation (ionizing, laser, microwave) 0 Toxins, cytotoxins, poisonous substances 1 Chemicals 0 Hazardous materials other than blood and body fluids 2 Communicable disease 1 Combative situations	0 Working Outdoors 0 Hot, cold, wet surroundings 0 Dust, fumes, gases, mist, powders 1 Loud or unpleasant noises 0 Electrical hazards 0 Grease and oil 0 Vibration 0 Heights 0 Moving mechanical parts 1 Wear protective clothing/equipment 0 Use hand or power tools 0 Operate vehicles/machinery	***DAILY ACTIVITIES?*** 3 Continuous keyboard use >2 hrs or intermittent keyboard use > 4 hrs 3 Performance of same motion/ motion pattern every few seconds greater than 2 hours at a time 0 Vibrating or impact tools/ equipment greater than a total of 2 hrs 2 Forceful hand exertions greater than a total of 2 hours 0 Other:
Type of protective clothing, equipment, hand or power tools, vehicles and machinery used: wear appropriate protective clothing based on patient isolation precautions		

DECISION-MAKING AUTHORITY: *Check the item below that comes closest to describing the decision- making authority required in this position:*
☐ Decisions are made within limits of clearly established policies, procedures, or instructions.
☒ Decisions are made requiring limited interpretation of policies, procedures, or instructions.

☐ Decisions are made requiring broad interpretation of policies, procedures, or instructions. ☐ Decisions are made which modify previously held or create new policy interpretations. ☐ Decisions are made on issues that initiate new organization wide policy.

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Employee's Name: Employee's Signature:	Date:
Supervisor's Name: Supervisor's Signature:	Date:

DENVER HEALTH
Level One Care for ALL

Job Description

Non-Management (Patient Care)

Revised Title 01/27/2016

Job Title: Pharmacy Tech II (MTS)		**Mgt Approval/Date:** T. Vlasimsky 5-20-15
Department: ACS Pharmacy Clinical Support		**HR Approval/Date:** M Vanatta 5-20-15
Job Code: DZZH3112	**FLSA Status:** Non-exempt	**Salary Class:** H - Hourly
EEO4 Code: 03-Technical	**HR Occ Class:** 690 Pharmacy	**Job Class:** CPT
Reports To (Job Title): Associate Director of Ambulatory Clinical Pharmacy Services		**Grade Sch:** NonExempt

The following statements are intended to describe the general nature and level of work being performed by people assigned to this job. They are not intended to be an exhaustive list of all responsibilities, duties, and skills required of personnel so classified.

JOB SUMMARY: Under general supervision of a pharmacist, the Medication Transition Specialist (MTS) will serve on the Medication Transitions Team (MTT). The MTS will support medication transitions for patients during hospital admissions and discharge with the goal to minimize medication errors that can occur during these care transitions for patients. Clinical and technical knowledge will be utilized to document complete and accurate medication lists, and provide discharge pharmacy services as needed and appropriate. The MTS will collaborate with other departments and ACS clinics to provide pharmacy-related information and assist with patient care coordination as needed.

MINIMUM QUALIFICATIONS:

Education: High school diploma or GED certificate. Completion of a pharmacy technician training program with at least one clinical rotation, and/or some college preferred.

Experience: Typically three years experience as a pharmacy technician in an ambulatory, retail, or inpatient pharmacy setting, or equivalent experience obtained through a pharmacy technician training program.

Knowledge, Skills & Abilities: Ability to work effectively as a team member. Excellent oral communication skills with patients and team members, plus demonstrated customer service skills. Attention to detail with good critical thinking and problem solving skills. Knowledge of basic pharmacy practices and procedures, including medications (prescription and OTC, brand and generic names, indications), mathematic computations, and record-keeping techniques. Good organization skills and experience with computer applications, including Microsoft office products. Demonstrates enthusiasm and initiative in performing job duties.

Certificate/License/Registration: Pharmacy Technician Certificate (PTCB) required. All Certifications and Licenses required for this job must be kept current as a condition of continued employment.

ESSENTIAL DUTIES & RESPONSIBILITIES: List each job duty and responsibility that is essential to performing the job successfully, efficiently and safely.

90% Patient-specific medication transitions of care activities:

- Conducts patient and/or caregiver interviews to obtain accurate and complete home medication lists in an accurate, efficient and timely manner.
- Contacts outside pharmacies and providers as needed to clarify home medication lists and assist with medication transitions of care.
- Documents accurate and complete home medication lists, medication allergies, and immunization history in the electronic medical record.
- Communicates with other members of the healthcare team information relevant to home medication lists, including assessment of medication compliance.
- Performs discharge medication transition of care services as developed and implemented.

- Facilitates patients' ability to continue inpatient medications post-discharge (e.g., prior authorization request assistance, medication assistance programs).
- Follow-protocol driven processes to screen patient-specific data and make appropriate referrals for post-discharge care.
- Problem-solve medication related issues in a timely manner as they arise.
- Handles and triages inquiries from providers, pharmacists and pharmacies.
- Practice excellent customer service towards patients, providers, and pharmacies.
- Assist with collecting data to monitor program effectiveness, team productivity and performance reporting.

5% Identifies and supports clinical and/or operational quality improvement opportunities.

- Assists with activities to document work done by the MTT team to support process and quality improvement efforts.
- Identifies and suggests recommendations for process improvement including areas of cost effectiveness and efficiency.
- Reports medication events (adverse drug reactions and medication errors) using the organizations' event reporting system.
- Reports and follows up on medication/patient safety issues as needed; works to resolve problems in a manner that will improve patient safety and team efficiency.
- Understands patient safety goals, core measures, and other quality metrics that affect area of practice; assists in development of programs that ensure compliance with these measures.

4% Enhances personal and coworkers' professional growth and development.

- Completes and meets the competency standards including education and training that is specific to the patient populations and practice site served. Keeps job knowledge current.
- Assists in the training of the MTT team members as appropriate.
- Attends and participates in departmental meetings, in-services, huddles, and departmental trainings as applicable.
- Maintains continuing education requirements for PTCB certification or maintains a pharmacy intern license in good standing.
- Identifies opportunities for learning and training to advance own professional competence.
- Other duties as assigned.

- Ensures that all legal and professional pharmacy requirements are adhered to. Maintains compliance with Joint Commission and/or other government regulatory standards applicable to area of practice.

- Promotes positive interpersonal (customer) relationships with fellow employees, physicians, patients and visitors. Treats these individuals with courtesy, dignity, empathy and respect; consistently displays courteous and respectful verbal and non-verbal communications.

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DEGREE OF SUPERVISION RECEIVED: ☐ Close ☒ General ☐ Minimal

PERSONNEL SUPERVISED (Titles and Approximate Numbers): ☒ None

INTERNAL/EXTERNAL CONTACTS: DH employees, patients and caregivers, outside pharmacies/providers

POPULATION SPECIFIC STAFF: ☒ Yes ☐ No
*(Check YES, if this job **requires** interaction with patients, families, and/or visitors. If YES, complete the population specific competencies at the employee's home department.)*

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PHYSICAL:	*ACTIVITIES:*	*MENTAL/SENSORY:*	*EMOTIONAL:*
1 Lifting < 10 lbs - Light	2 Sitting	3 Strong Recall	3 Fast pace environment
1 Lifting 10 - 20 lbs - Light-Med	3 Standing	3 Reasoning	3 Steady pace
1 Lifting 21 – 40 lbs - Medium	1 Bending	3 Problem Solving	3 Able to handle multiple priorities
0 Lifting 41 – 80 lbs- Med Heavy	1 Kneeling	3 Hearing	3 Frequent & intense customer interactions
0 Lifting 81 – 120 lbs - Heavy	1 Squatting	3 Seeing/Sight	3 Able to adapt to frequent change
0 Lifting > 120 lbs – Very Heavy	2 Walking (Distance)	3 Talk/Speak Clearly	3 Works under deadlines
1 Pushing/Pulling < 20lbs	1 Climbing (Steps, etc.)	3 Write legibly	3 Process complex info
1 Push/Pull 20 – 50 lbs	2 Reaching (overhead, extensive, repetitive)	3 Reading	3 Works as part of a team
0 Other: Describe:	0 Other:	3 Concentration	
		3 Logical Thinking	
		0 Other:	

Environmental Requirements: Place the appropriate "Amount of Time" code for each of the following:
0 = None; 1 = less than 1/3; 2 = 1/3 to 2/3; and 3 = more than 2/3

2 Blood and body fluids	0 Working Outdoors	*DAILY ACTIVITIES?*
2 Biohazards (e.g., bacteria, funguses, viruses)	0 Hot, cold, wet surroundings	3 Continuous keyboard use >2 hrs or intermittent keyboard use > 4 hrs
0 Radiation (ionizing, laser, microwave)	0 Dust, fumes, gases, mist, powders	3 Performance of same motion/ motion pattern every few seconds greater than 2 hours at a time
0 Toxins, cytotoxins, poisonous substances	1 Loud or unpleasant noises	0 Vibrating or impact tools/ equipment greater than a total of 2 hrs
1 Chemicals	0 Electrical hazards	2 Forceful hand exertions greater than a total of 2 hours
0 Hazardous materials other than blood and body fluids	0 Grease and oil	0 Other:
2 Communicable disease	0 Vibration	
1 Combative situations	0 Heights	
	0 Moving mechanical parts	
	1 Wear protective clothing/equipment	
	0 Use hand or power tools	
	0 Operate vehicles/machinery	

Type of protective clothing, equipment, hand or power tools, vehicles and machinery used: wear appropriate protective clothing based on patient isolation precautions

DECISION-MAKING AUTHORITY: *Check the item below that comes closest to describing the decision- making authority required in this position:*

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Employee's Name: Employee's Signature:	Date:
Supervisor's Name: Supervisor's Signature:	Date:

CALIFORNIA HOSPITAL ASSOCIATION

Providing Leadership in Health Policy and Advocacy

DATE: January 22, 2019

TO: CHA Medication Safety Committee Members

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

SUBJECT: FDA Drug Shortage Letter and Testimony

SUMMARY

CHA attended a stakeholder meeting held by the Food and Drug Administration (FDA) on the root cause of drug shortages. Ahead of the meeting, CHA submitted a comment letter, attached, that identifies underlying systemic causes and makes recommendations to prevent or mitigate drug shortages.
The FDA notes that Congress has asked it to examine the causes of these shortages and recommend measures that will provide enduring solutions. The FDA has also convened an inter-agency task force that will issue a report to Congress following the stakeholder meeting and the receipt of additional comments, which may be submitted to the agency until Jan. 11.

CHA appreciates the opportunity to provide input on the continuing impact of drug shortages within our hospitals and urges immediate action to address this public health crisis. CHA encourages hospitals to submit comments on the effects drug shortages have on their patients before the Jan. 11 comment deadline. Comments can be submitted at regulations.gov.

DISCUSSION

1) What drug shortages are you experiencing at this point?
2) Any other information we can share with our federal colleagues to advance the cause?

ACTION REQUESTED

- Information and feedback.

Attachments: FDA Letter

BJB:br

CALIFORNIA HOSPITAL ASSOCIATION

Providing Leadership in Health Policy and Advocacy

November 13, 2018

Scott Gottlieb, MD
Commissioner
Food and Drug Administration
10903 New Hampshire Avenue
Silver Spring, MD 20993

SUBJECT: Docket No. FDA-2018-N-3272, Identifying the Root Causes of Drug Shortages and Finding Enduring Solutions; Public Meeting; Request for Comments; Federal Register (Vol. 83, No. 175), September 10, 2018

Dear Commissioner Gottlieb:

The California Hospital Association (CHA), representing more than 400 hospitals and health systems, appreciates the opportunity to provide the Food and Drug Administration (FDA) input on the continuing impact of drug shortages within our hospitals. **CHA believes strongly that these continued drug shortages are negatively impacting the quality of patient care. We are very supportive of the FDA's efforts to convene stakeholders on November 27 for a public meeting to identify root causes of drug shortages and find enduring solutions. We offer the following comments and recommendations for consideration and discussion during this meeting.** We hope that providing our initial thoughts and recommendations in advance of the January comment deadline will inform this important dialogue. Moreover, it is critical that the FDA continue to work with congressional leaders, in partnership with all stakeholders, to advance and implement policy recommendations that address this public health crisis.

CHA offers the following comments for your consideration and discussion on November 27.

The California Drug Shortage Experience

Due to current drug shortages, California hospitals continue to experience extensive, widespread operational challenges as well as compromised medication administration safety and reliability. Common and routine drug shortages hospitals have experienced for many years were recently made more acute by the shortage of intravenous (IV) fluid bags after Hurricane Maria in Puerto Rico, as well as the ongoing — and escalating — opioid drug shortage, resulting in part from drug manufacturing quotas imposed by the Drug Enforcement Administration (DEA). **These two events have compromised years of medication safety improvement measures taken by hospitals.**

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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

Two influential reports from the Institute of Medicine — *To Err is Human: Building a Safer Health System*, published in 1999, and *Preventing Medication Errors: Quality Chasm Series*, published in 2006 — generated a national agenda for reducing medication errors and accelerated performance improvement activities. **Unfortunately, gains made in recent years have been severely compromised — and in some cases, lost entirely — due to current IV and opioid shortages.**

To Err is Human: Building a Safer Health System identified medication errors as the most common type of error in health care, and attributed several thousand deaths annually to medication-related events. At the urging of the Senate Finance Committee, the United States Congress directed the Centers for Medicare & Medicaid Services (CMS) to contract with the IOM in developing a study that would inform a national agenda for reducing medication errors. That study — *Preventing Medication Errors: Quality Chasm Series* — found that, on average, a hospital patient is subject to at least one medication error per day. Further, the report approximated that 380,000-450,000 preventable adverse drug events occur in hospitals annually. The report also estimated hospital costs for each adverse drug event —an average of $5,857 per event, for an annual cost of $2.3 billion in 1993 dollars. Adjusted for inflation, that cost would have been $3.5 billion in 2006. **In light of the current shortages, CHA is concerned that these numbers have more than likely increased exponentially, particularly given the latest drug shortage events that compromise patient care.**

Based on the recommendations from the IOM studies, California hospitals have invested billions of dollars in technology, labor and performance improvement activities to provide the safest medication administration systems available. In addition, California is one of a few states that require, as part of hospital licensure, facilities to submit extensive Medication Error Reduction Plans that include implementation of technology proven to reduce errors. The California Department of Public Health approves the submitted plans, and each hospital must review and approve the plan annually. Hospitals are surveyed on their plans every three years; penalties are assessed for non-compliance.

Through this extensive and resource-intensive process, California hospitals have meticulously implemented up-to-date information systems, such as electronic prescribing and monitoring technology, automated point-of-care reference information monitoring, comprehensive medication reconciliation and decision support systems. In addition, hospitals have implemented advanced medication administration systems, such as smart IV pumps, and bar code administration systems. **These activities have resulted in marked improvements in the medication administration process through standardization, increased provider and consumer knowledge, and system alerts for near-miss events. Even routine drug shortages have been successfully managed through proactive practices. While routine drug shortages are not new to hospitals and remain a concern, the current shortages affect the medication use process in a profoundly different manner.**

Drug Shortage Impact on Patients and Health Care Providers

Today, medication errors occur at all steps of the medication use process — from procuring the drug itself to prescribing, dispensing and administering it, and monitoring the patient's response. Because routine drug shortages have been occurring since approximately 2000, hospitals have strategically developed backup systems to obtain drug replacements and prevent the drug shortage from affecting the medication administration steps after procurement. **However, the latest drug shortage events have exacerbated existing shortages and are affecting every step of the process — complicating even the simplest or most common medication administration processes.**

For example, hospitals are currently experiencing a shortage of IV bicarbonate, a drug commonly used to treat emergency patients suffering from acidosis. It is stocked on all emergency code carts in every hospital and is packaged in a unique, injectable cartridge so that it may be quickly administered to the patient without requiring it to be diluted or reconstituted. The shortage of this drug and its characteristic packaging, and lack of a perfect replacement "look-alike," forces hospitals to use other substitutes in different types of vials and ampules. In some incidences, another suitable substitution may not be available, requiring the pharmacist to switch to a different dilution or vial than the standard. This requires providers to determine a new drug dosage, note new packaging, educate staff and manipulate doses manually, setting into motion a cascade of potential errors across all steps of the medication administration process. Most concerning, these added steps delay patient care, particularly in emergency situations.

California hospitals report daily frustrations in providing safe, timely and efficient pharmaceutical administration — even after years of meticulous medication safety improvements. These issues have led to deleterious instances of unsafe practices, compromised care and potentially harmful errors and adverse events. While "routine" drug shortages have gone on for years, the recent IV fluid shortage and opioid shortages continue at a disturbing rate. We are alarmed by their impact, which threatens our ability to administer medication in a safe, highly reliable, patient-centric and fiscally responsible manner.

California-Specific Data

In an effort to support the FDA's request for information and additional comments, CHA collaborated with our partners at CHPSO — one of the first, and the largest, patient safety organizations in the nation — in reviewing data from its event reporting database. We also solicited input from pharmacy experts across the state — including California hospital and health system pharmacists, pharmacy staff, nurses, quality improvement directors and direct patient care staff who practice in various hospital settings, like infection control or medical/surgical units, to provide additional examples and qualitative information that add context to this reporting.

Drugs Involved and Frequency of Shortages

Medication shortages were reported across all hospital settings. The highest reported shortages impact emergency care, anesthesia care, critical care, pain management, antibiotic treatment, cardiovascular

care, oncological care and obstetrics/gynecology. The most frequently reported drug shortages include sodium bicarbonate, IV hydralazine, calcium gluconate, lidocaine and IV morphine.

Many of these unavailable drugs are essential to patient care. If they are unavailable and a substitute is used, a ripple effect is felt throughout the medication use process — resulting in increasingly complicated adverse drug reactions.

Errors in the Medication Use Process and Harm Examples

When a provider works with a patient safety organization (PSO) like CHPSO, many long-recognized impediments to successful improvement projects — most notably, provider fear of increased liability — can be overcome. The PSO law provides confidentiality and privilege protections to hospitals when certain requirements are met, eliminating that fear and encouraging reporting to improve performance. In turn, the PSO is able to aggregate confidentially reported data and disseminate it so that others may learn from these events and take action to prevent future events.

Hospitals that are actively engaged with CHPSO report numerous errors, throughout the medication use process, associated with drug shortages. An overview of the most frequently reported errors is provided in the table below.

Most Frequently Cited Errors
1. Pharmacists dispensing medication in vials to patient care units that need to be prepared and administered by front line staff via IV push. Previously, these medications were available in premixed containers or mixed in small volume containers. This is a particular concern for standardized code cart medications that staff know to be in a particular place, in a particular container, with a particular dose.
2. Nurses administering IV push medications rapidly, due to a lack of IV bags with the appropriate volume; smaller volume bags increase the change of rapid infusion, particularly for medications that should be administered more slowly via a syringe pump
3. Nurses or front-line staff diluting or reconstituting medications in saline flush syringes on patient care units due to shortages of normal saline
4. Nurses compounding products that were previously available as premixed solutions or injectables in the pharmacy or operating room
5. Pharmacists providing medications in concentrations that differ from that typically used for direct injectables, or for compounding products according to standardized formulas that are then no longer accurate
6. Nurses and front-line staff receiving different sizes or concentrations of drugs, resulting in extreme waste — particularly with respect to opioid dosages

Despite staff education, continuous performance improvement activities and routine monitoring, errors still occur. Many are a direct result of the drug shortages and the operational challenges hospitals and

health systems face on a daily basis in managing this crisis. Specific examples of medication errors and their impact on patient care and outcomes are detailed below.

Procurement: Errors occur throughout the procurement process, stemming primarily from backorders, inappropriate product allocations and shipping delays. Further errors can occur when providers receive incorrect information from credible resources. For example, a national, credible resource recommended — during the IV bag shortage — that providers give an antibiotic as IV push; this inaccurate information led to patient harm. Patient harm can also result when the product ordered and the product supplied are not **exactly** the same — for instance, ordering Ropivacaine but receiving Ropivacaine 0.2%, which is the same concentration but requires a different volume to be infused in the pump. Providers reported to CHPSO the following specific instances of procurement errors:

- Suppliers did not have IV bicarbonate. As a result, a patient receiving a high dose methotrexate infusion suffered renal failure.
- Suppliers did not have D50 in omnicell, rapid response box and ED cart, nor did they have D10 or 250 ml bags with D10. As a result, providers were unable to procure a drug to assist a hypoglycemic patient.
- Suppliers did not have hyaluronate antidote for vincristine; the patient in this case hemorrhaged.
- A hospital did not have Acyclovir available for a patient with HSV meningitis, causing delay and temporary harm.
- A hospital experienced a shortage of cefepime, resulting in a 24–hour delay in antibiotic treatment for a neutrogenic patient.

Storage/Space: Errors related to storage issues strain the drug supply chain, diverting items from patients in critical need. These often stem from a lack of space, particularly for refrigerated products; inappropriate labels for storage; and hoarding or stockpiling of extra supplies. Specific examples providers reported to CHPSO include:

- The routinely used Ropivacaine infusion was previously intended to be stored at room temperature, but the available product, in a different dosage, is refrigerated. This change resulted in a patient's epidural being paused while the new product was located, because the computer system did not specify "refrigerated" as with other refrigerated medications.
- A lack of storage space led a provider to stack heparin bags side-by-side, leading to a Pyxis machine misfill.
- A cath lab code cart that is normally stocked with two vials of IV bicarbonate had only one available due to shortage. The patient in this instance needed two, resulting in patient code.

Prescribing: Prescribing errors often result from a computer physician order entry (CPOE) system that is not updated, wrong formulation, confusion as to whether a product is preservative-free, substitutions by provider or pharmacy, whether order sets are available, and mistakes in order review and processing. Providers reported to CHPSO the following specific examples:

- Due to a shortage of Labetalol, a different prescription was needed, which resulted in delayed care during an obstetric hypertension crisis.
- Due to a nationwide shortage of .5mg/ml preservative-free morphine, a hospital could only obtain the 2mg/ml preservative-free morphine. This caused dosage confusion between .5mg of the normal dose and 2mg of the non-normal dose.

Preparation and Compounding: Providers experience errors during preparation and compounding due to changes in dose or concentrations, forcing front-line staff to prepare unfamiliar medications; receipt of products in different sizes or concentrations that may require diluting by front-line staff, resulting in more waste if the package is larger than the usual product; and front-line staff's unfamiliarity with alternative medications. For example, errors can occur if a received product is more concentrated or a larger volume than the product the provider typically receives. Specific examples reported to CHPSO include:

- Calcium Chloride, a substitute medication, was improperly diluted and administered in a peripheral line. This led to extravasation and severe patient harm.
- Providers were forced to substitute hydromorphone 1mg/ml vials with hydromorphone 2mg/ml vials in the automated dispensing cabinet. As a result, several patients received double the ordered dose.
- A patient undergoing chemotherapy needed IV bicarbonate but — due to shortages — did not receive the necessary dose. This delay resulted in the patient's increased pH level, increased acidosis and subsequent patient harm.
- Because premixed vials were unavailable in the hospital, staff were forced to compound epinephrine and bupivacaine in a much smaller dose at a 10-fold higher concentration, causing temporary patient harm.

Dispensing: Medication errors related to dispensing procedures typically result from confusion over actual stock versus actual need — especially when providers do not know how long the shortage will last — and confusion, particularly by front-line staff, over drug substitution names. Errors can also occur when code cart stock looks different, or when extra steps must be taken for controlled substance accountability and witnessing of waste for each dose administered. Specific examples reported to CHPSO include:

- A standard dosage of epinephrine was unavailable in a code cart, so a different vial dosage was mistakenly dispensed in a critical case, resulting in patient harm.
- Gentamycin was inaccurately substituted during an erythromycin ointment shortage, causing redness and blistering around the patient's eyes.
- A hospital experienced a shortage of pre-filled duramorph syringes, and staff substituted a different concentration of morphine. In this case, the patient suffered respiratory distress.

Administration: The administration of medications presents its own opportunities for error, usually related to drug compatibility, pump issues, drug library issues, scannable barcode issues, or fast and hard stop overrides. Providers reported to CHPSO the following specific examples:

- Staff provided the wrong dose of sodium acetate, which was substituted during a shortage of sodium bicarbonate, resulting in the patient's renal failure.
- Due to a shortage of routine epinephrine code cart vials, staff were forced to compound a different epinephrine dose during code, causing patient harm.

Other Important Considerations

Interdepartmental Tensions and Process Issues

Drug shortages often require rapid changes in the entire medication safety process — changes that may not reach all staff in a timely manner. Delays in emergency care or with routine standard drug concentrations necessitate that staff perform unfamiliar diluting activities. Unfamiliar substitution containers, particularly in code carts, require staff to dilute or reconstitute, further delaying patient care. Overall frustration with drug shortages, and their resultant process breakdowns, foster interdepartmental tension in hospitals.

Breaches in Drug Purchasing or Allocation Policies

Due to drug shortages, most hospitals report breaches in their drug purchasing or allocation policies. These breaches can include using drugs from emergency carts for non-emergency care, stockpiling excessive amounts of drugs, using override technology on automated drug cabinets despite restrictions, using single dose vials as multiple-dose vials and purchasing sterile products compounded from non-sterile ingredients.

Costs of Drug Shortages

A 2013 survey[1] estimated hospital costs due to shortages at $100,000 each quarter. More than 25 percent of the 1,516 hospital pharmacy directors surveyed reported adding at least one full-time equivalent staff member to manage drug shortages. One large health system reported an annual cost of $5.3 million in drug costs and $570,000 in labor costs, for a total of $5.87 million per year.

Actions to Address Drug Shortages

California hospitals and health systems are committed to reducing drug shortages' impact on patient care and ensuring that patients receive needed treatment. To accomplish those goals, providers have taken innumerable resource-intensive actions, including:

- **Securing and Maintaining Products:** Hospitals report stockpiling drugs, outsourcing drugs, using alternative drugs, and implementing conservation or minimal usage procedures. For critically important drugs, hospitals add backup inventory and purchase excess inventory

[1] Effects On Patient Care Caused by Drug Shortages: A Survey. McLaughlin, M, Thomson, K, et. al, *Journal of Managed Care Pharmacy*, 2013, Nov-Dec;19(9);783-8

from wholesalers; in some cases, they may purchase a more expensive brand, a generic product or a therapeutic alternative. Often, smaller hospitals rely on borrowing or purchasing drugs from another health system. Almost all providers purchase necessary drugs in different concentrations. As noted above, this can lead to operational challenges resulting in preventable errors.

- **Limiting or Extending Drug Use:** Almost all hospitals are rationing or restricting drugs that are in short supply. To do this, they establish criteria, restrict access via override technology on automated dispensing cabinets and provide re-established kits for emergency drug use. Many providers report that they use these drugs outside of their specific labeling to help extend their use — such as keeping expired products, without FDA-extended dating, in code carts. These workarounds result in the unintended consequences of drug shortages — jeopardized patient care.
- **Increasing Communication and Education Processes:** All hospitals are devoting limitless resources to keeping staff — particularly medical staff — informed of drug shortages. Most have deployed drug shortage staff to proactively plan, evaluate and develop communication strategies. These increased costs to the health care system could be avoided with improved policies to address this critical shortage.

Hospitals refine these stopgaps every day to ensure they continue to provide high-quality care. However, this is unsustainable given the increasing frequency of drug shortages. We must work together to address the fundamental causes of these issues. CHA supports recommendations advocated by the American Hospital Association and others, and calls on the FDA to work with Congress to address the gaps in policy that lead to these adverse outcomes.

We urge Congress to:

- **Require manufacturers to provide the FDA with more information on shortages' causes and their expected duration.** Congress should strengthen Title X of the Food and Drug Administration Safety and Innovation Act to include disclosure of the problem causing the interruption and an expected timeline to address it.
- **Require manufacturers to establish contingency plans or redundancies.** Congress should require that manufacturers establish contingency plans to be used in the event of a shortage, specifically when there are fewer than three manufacturers producing a drug.
- **Require manufacturers to be more transparent.** Congress should require manufacturers to disclose to the FDA the production location, including in situations where a contract manufacturer is used.
- **Examine drug shortages as a national security initiative.** Congress should require the U.S. Department of Health and Human Services and the Department of Homeland Security to identify ways that they can support manufacturers and the health care provider community in preparing for and responding to future disasters and other supply disruptions.

- **Ask the Federal Trade Commission (FTC) to include, in its review of drug company merger proposals, the potential risk for drug shortages.** Congress could request that the FTC consider the potential risk for drug shortages when reviewing drug company mergers and acquisitions.

CHA's member hospitals and health systems are committed to utilizing the safest, most reliable medication practices. Unfortunately, we have reached a current tipping point as a result of these shortages, and our ability to provide that level of care is severely affected. While we appreciate the work that many state and government organizations are doing to remedy the situation, we need immediate intervention.

CHA appreciates the opportunity to provide the FDA with our comments and looks forward to participating in the stakeholder discussion on November 27. If you have any questions, please contact me at akeefe@calhospital.org or (202) 488-4688, or my colleague BJ Bartleson, CHA vice president, nursing and clinical services, at bjbartleson@calhospital.org or (916) 552-7537.

Sincerely,

/s/
Alyssa Keefe
Vice President, Federal Regulatory Affairs

CALIFORNIA HOSPITAL ASSOCIATION

Providing Leadership in Health Policy and Advocacy

DATE: January 22, 2019

TO: Medication Safety Committee Members

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

SUBJECT: Board of Pharmacy Waiver Process

SUMMARY

Hospital sterile compounding waivers are schedule to expire December 2019. This may be dependent on USP 797 finalization delays and or potential changes in California sterile compounding regulations.

DISCUSSION

1) Where are hospitals regarding construction changes and meeting the December, 2019 deadline?
2) What is the sense from stakeholders regarding potential delay in USP 797 and or upcoming changes that will delay construction waiver deadlines?

ACTION REQUESTED

- Information and feedback requested.

BJB:br

CALIFORNIA HOSPITAL ASSOCIATION

Providing Leadership in Health Policy and Advocacy

DATE: January 22, 2018

TO: Medication Safety Committee Members

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

SUBJECT: Inventory Reconciliation from Automatic Drug Dispensing Units

SUMMARY

Recently a hospital was cited for:

Order of Correction as follows:

- CCR 1715.65(a) Inventory Reconciliation Report of Controlled Substances. Controlled substance reconciliation was not completed and documented by PIC for each controlled storage location in and out of the pharmacy.

There appears to be a confusion with this as below, under section (g) there is specificity focused on the hospital pharmacies. The DOP was able to speak to our practices with the ADDs and how they are managed, but the inspector discounted that and cited them.
Previous to this citing, two members approached the Board of Pharmacy for clarification on the need for quarterly reconciliation for ADDU's, with the following response:

The machines are part of the hospital's drug delivery system.

The inventory reconciliation regulation provides that:
Generally (from section 1715.65):
(a) Every pharmacy, and every clinic licensed under sections 4180 or 4190 of the Business and Professions Code, shall perform periodic inventory and inventory reconciliation functions to detect and prevent the loss of controlled substances
(b) The pharmacist-in-charge of a pharmacy or consultant pharmacist for a clinic shall review all inventory and inventory reconciliation reports taken, and establish and maintain secure methods to prevent losses of controlled drugs. Written policies and procedures shall be developed for performing the inventory reconciliation reports required by this section.

And with respect to ADDS:
(h) The pharmacist-in-charge of an inpatient hospital pharmacy or of a pharmacy servicing onsite or offsite automated drug delivery systems shall ensure that:
(1) All controlled substances added to an automated drug delivery system are accounted for;
(2) Access to automated drug delivery systems is limited to authorized facility personnel;
(3) An ongoing evaluation of discrepancies or unusual access associated with controlled substances is performed; and
(4) Confirmed losses of controlled substances are reported to the board.

Also as noted in CCR 1715.65 (g) and (h) - ADDS systems shall have controlled substances “accounted for” – See attachment

DISCUSSION

1) Are any other hospitals seeing this survey citation?
2) Are there legislative or regulatory changes we need to propose?

ACTION REQUESTED

- Information and feedback.

Attachments: 1715.65. Inventory Reconciliation Report of Controlled Substances

BJB:br

Title 16. Board of Pharmacy
Order of Adoption

Adopt section 1715.65 in Article 2 of Division 17 of Title 16 of the California Code of Regulations to read as follows:

1715.65. Inventory Reconciliation Report of Controlled Substances

(a) Every pharmacy, and every clinic licensed under sections 4180 or 4190 of the Business and Professions Code, shall perform periodic inventory and inventory reconciliation functions to detect and prevent the loss of controlled substances.

(b) The pharmacist-in-charge of a pharmacy or consultant pharmacist for a clinic shall review all inventory and inventory reconciliation reports taken, and establish and maintain secure methods to prevent losses of controlled drugs. Written policies and procedures shall be developed for performing the inventory reconciliation reports required by this section.

(c) A pharmacy or clinic shall compile an inventory reconciliation report of all federal Schedule II controlled substances at least every three months. This compilation shall require:
   (1) A physical count, not an estimate, of all quantities of federal Schedule II controlled substances. The biennial inventory of controlled substances required by federal law may serve as one of the mandated inventories under this section in the year where the federal biennial inventory is performed, provided the biennial inventory was taken no more than three months from the last inventory required by this section;
   (2) A review of all acquisitions and dispositions of federal Schedule II controlled substances since the last inventory reconciliation report;
   (3) A comparison of (1) and (2) to determine if there are any variances;
   (4) All records used to compile each inventory reconciliation report shall be maintained in the pharmacy or clinic for at least three years in a readily retrievable form; and
   (5) Possible causes of overages shall be identified in writing and incorporated into the inventory reconciliation report.

(d) A pharmacy or clinic shall report in writing identified losses and known causes to the board within 30 days of discovery unless the cause of the loss is theft, diversion, or self-use in which case the report shall be made within 14 days of discovery. If the pharmacy or clinic is unable to identify the cause of the loss, further investigation shall be undertaken to identify the cause and actions necessary to prevent additional losses of controlled substances.

(e) The inventory reconciliation report shall be dated and signed by the individual(s) performing the inventory, and countersigned by the pharmacist-in-charge or professional director (if a clinic) and be readily retrievable in the pharmacy or clinic for three years. A countersignature is not required if the pharmacist-in-charge or professional director personally completed the inventory reconciliation report.

(f) A new pharmacist-in-charge of a pharmacy shall complete an inventory reconciliation report as identified in subdivision (c) within 30 days of becoming pharmacist-in-charge. Whenever possible an outgoing pharmacist-in-charge should also complete an inventory reconciliation report as required in subdivision (c).

(g) For inpatient hospital pharmacies, a separate quarterly inventory reconciliation report shall be required for federal Schedule II controlled substances stored within the pharmacy and for each pharmacy satellite location.

(h) The pharmacist-in-charge of an inpatient hospital pharmacy or of a pharmacy servicing onsite or offsite automated drug delivery systems shall ensure that:

(1) All controlled substances added to an automated drug delivery system are accounted for;

(2) Access to automated drug delivery systems is limited to authorized facility personnel;

(3) An ongoing evaluation of discrepancies or unusual access associated with controlled substances is performed; and

(4) Confirmed losses of controlled substances are reported to the board.

Authority cited: Section 4005, Business and Professions Code. Reference: Sections 4008, 4037, 4080, 4081, 4101, 4104, 4105, 4105.5, 4110, 4113, 4119.1, 4180, 4181, 4182, 4186, 4190, 4191, 4192, and 4332, Business and Professions Code and 1261.6, Health and Safety Code.

CALIFORNIA HOSPITAL ASSOCIATION

Providing Leadership in Health Policy and Advocacy

DATE: January 22, 2018

TO: Medication Safety Committee Members

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

SUBJECT: AB 2760

SUMMARY

AB 2760, a CURES bill passed last year, requires naloxone prescribing and education for patients co-prescribed opioids and benzodiazepines, patients on >90 MME of opioids, and patients at high risk for overdose based on history. This law applies to physicians who may be issuing prescriptions at the time of hospital discharge, as well of course, as prescribers in the ambulatory settings. Some hospital members are asking if CHA is considering setting up a tool or webinar to help hospitals with implementation. (See attached)

DISCUSSION

1) Is this bill implementation a concern for your hospitals?
2) Does it fit in with your present opioid policies and procedures?
3) Are there tools CHA needs to develop for implementation?

ACTION REQUESTED

- Review and discuss implementation issues.

Attachments: AB 2760
Medical Board FAQ

BJB:br

Date Published: 09/10/2018 09:00 PM

Assembly Bill No. 2760

CHAPTER 324

An act to add Article 10.7 (commencing with Section 740) to Chapter 1 of Division 2 of the Business and Professions Code, relating to healing arts.

[Approved by Governor September 10, 2018. Filed with Secretary of State September 10, 2018.]

LEGISLATIVE COUNSEL'S DIGEST

AB 2760, Wood. Prescription drugs: prescribers: naloxone hydrochloride and other FDA-approved drugs.

Existing law provides for the regulation of health care practitioners and requires prescription drugs to be ordered and dispensed in accordance with the Pharmacy Law. Existing law authorizes a pharmacist to furnish naloxone hydrochloride in accordance with standardized procedures or protocols developed by both the California State Board of Pharmacy and the Medical Board of California.

This bill would require a prescriber, as defined, to offer a prescription for naloxone hydrochloride or another drug approved by the United States Food and Drug Administration for the complete or partial reversal of opioid depression to a patient when certain conditions are present and to provide education on overdose prevention and the use of naloxone hydrochloride or another drug to the patient and specified others, except as specified. The bill would subject a prescriber to referral to the board charged with regulating his or her license for the imposition of administrative sanctions, as that board deems appropriate, for violating those provisions.

Vote: majority Appropriation: no Fiscal Committee: yes Local Program: no

THE PEOPLE OF THE STATE OF CALIFORNIA DO ENACT AS FOLLOWS:

SECTION 1. The Legislature finds and declares all of the following:

(a) Abuse and misuse of opioids is a serious problem that affects the health, social, and economic welfare of the state.

(b) After alcohol, prescription drugs are the most commonly abused substances by Americans over 12 years of age.

(c) Almost 2,000,000 people in the United States suffer from substance use disorders related to prescription opioid pain relievers.

(d) Nonmedical use of prescription opioid pain relievers can be particularly dangerous when the products are manipulated for snorting or injection or are combined with other drugs.

(e) Deaths involving prescription opioid pain relievers represent the largest proportion of drug overdose deaths, greater than the number of overdose deaths involving heroin or cocaine.

(f) Driven by the continued surge in drug deaths, life expectancy in the United States dropped for the second year in a row in 2016, resulting in the first consecutive decline in national life expectancy since 1963.

(g) Should 2017 also result in a decline in life expectancy as a result of drug deaths, it would be the first three-year period of consecutive life expectancy declines since World War I and the Spanish flu pandemic in 1918.

SEC. 2. Article 10.7 (commencing with Section 740) is added to Chapter 1 of Division 2 of the Business and Professions Code, to read:

Article 10.7 Opioid Medication

740. For purposes of this article, "prescriber" means a person licensed, certified, registered, or otherwise subject to regulation pursuant to this division, or an initiative act referred to in this division, who is authorized to prescribe prescription drugs.

741. (a) Notwithstanding any other law, a prescriber shall do the following:

(1) Offer a prescription for naloxone hydrochloride or another drug approved by the United States Food and Drug Administration for the complete or partial reversal of opioid depression to a patient when one or more of the following conditions are present:

(A) The prescription dosage for the patient is 90 or more morphine milligram equivalents of an opioid medication per day.

(B) An opioid medication is prescribed concurrently with a prescription for benzodiazepine.

(C) The patient presents with an increased risk for overdose, including a patient with a history of overdose, a patient with a history of substance use disorder, or a patient at risk for returning to a high dose of opioid medication to which the patient is no longer tolerant.

(2) Consistent with the existing standard of care, provide education to patients receiving a prescription under paragraph (1) on overdose prevention and the use of naloxone hydrochloride or another drug approved by the United States Food and Drug Administration for the complete or partial reversal of opioid depression.

(3) Consistent with the existing standard of care, provide education on overdose prevention and the use of naloxone hydrochloride or another drug approved by the United States Food and Drug Administration for the complete or partial reversal of opioid depression to one or more persons designated by the patient, or, for a patient who is a minor, to the minor's parent or guardian.

(b) This section does not apply to a prescriber when prescribing to an inmate or a youth under the jurisdiction of the Department of Corrections and Rehabilitation or the Division of Juvenile Justice within the Department of Corrections and Rehabilitation.

742. A prescriber who fails to offer a prescription, as required by paragraph (1) of subdivision (a) of Section 741, or fails to provide the education and use information required by paragraphs (2) and (3) of subdivision (a) of Section 741 shall be referred to the appropriate licensing board solely for the imposition of administrative sanctions deemed appropriate by that board. This section does not create a private right of action against a prescriber, and does not limit a prescriber's liability for the negligent failure to diagnose or treat a patient.

MEDICAL BOARD OF CALIFORNIA
Protecting consumers by advancing high quality, safe medical care.

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Governor Edmund G. Brown Jr., State of California | Business, Consumer Services and Housing Agency | Department of Consumer Affairs

AB 2760 (Wood, Chapter 324, Statutes of 2018) – Frequently Asked Questions

1. **What does this new law require?**
   This law requires prescribers to offer a prescription for naloxone hydrochloride or another drug approved by the United States Food and Drug Administration for the complete or partial reversal of opioid depression to a patient when one or more of the following conditions are present:
   - The prescription dosage for the patient is 90 or more morphine milligram equivalents of an opioid medication per day.
   - An opioid medication is prescribed concurrently with a prescription for benzodiazepine.
   - The patient presents with an increased risk for overdose, including a patient with a history of overdose, a patient with a history of substance use disorder, or a patient at risk for returning to a high dose of opioid medication to which the patient is no longer tolerant.

   This law also requires prescribers, consistent with the existing standard of care, to provide education to patients, persons designated by the patient, or for minor patients, to their parents or guardian, if they fall under one of the above conditions, regarding overdose prevention and the use of naloxone hydrochloride or another drug approved by the United States Food and Drug Administration for the complete or partial reversal of opioid depression.

2. **Does this law exclude patients in an inpatient facility?**
   This law does not exempt inpatient facilities from its requirements.

3. **Does the requirement to offer a prescription for naloxone apply to medications being administered in hospitals?**
   The requirements in this law do not apply to medications being administered in hospitals because the language in this law uses the word “prescribing,” which is different than a doctor giving an order for medication to be administered in an inpatient facility.

4. **Is this law limited to the prescriber at the time of prescription?**
   The requirements in this law are not limited to the prescriber at the time of a prescription. The requirement to offer a prescription for naloxone or other similar opioid reversal drug would apply anytime the conditions specified in the law are present.

5. **Does this law apply only to patients who are currently on opioids, or does it apply to any patient who has a history of opioid overdose?**
   This law applies to all patients with an increased risk for overdose, including a patient with a history of overdose, a patient with a history of substance use disorder, or a patient at risk for returning to a high dose of opioid medication to which the patient is no longer tolerant.

6. **This law allows a patient to designate an individual(s) to receive the education required by this law. If a patient designates an individual that is not at the appointment what is the prescribers' responsibility to contact that designee?**
   This law specifies that the education must be provided consistent with the standard of care. The prescriber will need to make the determination on the appropriate method to provide that education to the appropriate individual(s).

CALIFORNIA HOSPITAL ASSOCIATION

Providing Leadership in Health Policy and Advocacy

DATE: January 22, 2019

TO: Medication Safety Committee Members

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

SUBJECT: AB 1753 - Controlled Substance Presecription Form Serial Number Data Submission

SUMMARY

As of Jan. 1, controlled substance security prescription forms must include a new, unique serial number in a format approved by the Department of Justice. However, the new requirement does not allow for a transition period during which providers would be allowed to use the previously approved form, and those who do not have access to the new forms have been forced to choose between denying care and risking action against their licenses.

The new law was enacted as part of a comprehensive bill package to address the opioid crisis.

To mitigate the issues prescribers are experiencing during the transition, the California Board of Pharmacy has recommended that no enforcement action be taken before July 1. In its letter outlining this recommendation, the board also provided several alternatives pharmacists may consider if the required form is not available. Further, Assemblymember Evan Low, the law's author, has requested that the Department of Justice issue regulations delaying implementation of the requirement until issues can be resolved.

More information is available in a notice from the Medical Board of California and a joint statement from the medical board, pharmacy board and justice department.

ACTION REQUESTED

- Information and feedback requested.

Attachments: Board of Pharmacy Letter
Board of Pharmacy FAQs
Letter from Assemblymember Evan Low
Medical Board of California Notice
Joint Statement from Medical Board, Board of Pharmacy and Justice Department

BJB:br

California State Board of Pharmacy
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www.pharmacy.ca.gov

Business, Consumer Services and Housing Agency
Department of Consumer Affairs
Governor Edmund G. Brown Jr.

December 27, 2018

To: California Licensed Pharmacists and California Pharmacies

In the most recent legislative session, Assembly Bill 1753 (Low) was enacted to require an additional improvement to controlled substance security prescription forms: the addition of a unique serialized number to each form in a format approved by the Department of Justice. This change takes effect January 1, 2019.

Thus, as of January 1, 2019:

(1) Each controlled substance security prescription form used for prescribing on or after that date must include a unique serialized number in an approved format (Health & Safety Code, § 11162.1, subdivision (a)(15)); and

(2) No person shall prescribe a controlled substance on or after that date, nor fill, compound, or dispense a prescription for a controlled substance written on or after that date, without this security feature (Health & Safety Code, § 11164, subdivision (a)).

The legislation did not include any transition or grandfathering period to allow for continued use of old controlled substance security prescription forms on or after January 1, 2019. Under the new statutes, the new security forms will be the exclusive means to write paper controlled substance prescriptions as of January 1, 2019, and as of that date any prescription written on a controlled substance security prescription form that does not bear all of the 15 security features will be presumptively invalid.

The board anticipates that some prescribers will nonetheless continue to use old prescription forms on and after January 1, 2019. And that pharmacists and pharmacies will be placed in the uncomfortable position of having to decide between providing needed medications to patients, and compliance with the law.

On or after January 1, 2019, a pharmacist may be presented with a Schedule II, III, IV or V controlled substance prescription written on a security prescription form that was compliant prior to January 1, 2019 but is no longer compliant. This may be especially true for Schedule II prescriptions. In this circumstance, the Enforcement Committee has recommended to the board and to the executive officer that prior to July 1, 2019 the board not make an enforcement priority any investigation or action against a pharmacist who, in the exercise of his or her professional judgment, determines that it is in the best interest of patient or public health or safety to nonetheless fill such prescription.

The board urges pharmacists and pharmacies to exercise your best judgment in handling these situations, and reminds you of the following possible responses:

(a) Communicating with the prescriber about the need for a compliant security prescription;
(b) Advising the prescriber to substitute an electronic prescription;
(c) Consulting with the prescriber about whether the patient might be terminally ill and eligible for a "11159.2 exemption" prescription under Health and Safety Code section 11159.2;
(d) Treating prescription orders written on the outdated forms for Schedule III, IV and V medications as oral prescriptions, and verifying the order telephonically with the prescriber's office, pursuant to Health and Safety Code section 11164, subdivision (b);
(e) Schedule II prescriptions on non-compliant security prescription forms present unique challenges, because of the inability to substitute an oral prescription. It is therefore especially important that pharmacists use their best professional judgment to get needed Schedule II medications to their patients, and the same enforcement priority will be applied to these dispensing decisions until July 1, 2019.
(f) If failure to dispense may result in loss of life or intense suffering, dispensing pursuant to the emergency situation requirements of Health and Safety Code section 11167, and curing with a compliant controlled substance security prescription form within seven (7) days;
(g) Refusing to fill the prescription.

Licensees are encouraged to identify prescribers who do not timely begin the transition to the new security prescription forms to the appropriate prescribing board, so that compliance can be encouraged. Use this link to identify the addresses of the respective prescribing boards https://www.dca.ca.gov/about_us/entities.shtml.

For your information, here are links to supplemental documents:

- Health and Safety Code section 11162.1 as it will take effect January 1, 2019

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Business, Consumer Services and Housing Agency
Department of Consumer Affairs
Gavin Newsom, Governor

Changes to Security Prescription Forms Pursuant to AB 1753 – FAQs

1. **Previous communications have indicated that there is no transition period for prescriptions written after January 1, 2019 without a serial number. Who would enforce provisions against dispensers that determine it is in the best interest of the patient to dispense a medication issued on a form that does not include a serialized number.**

A: The Enforcement Committee has recommended to the board and to the executive officer that prior to July 1, 2019 the board not make any enforcement priority any investigation or action against a pharmacist who, in the exercise of his or her professional judgment, determines that it is in the best interest of patient or public health or safety to nonetheless fill such prescription.

2. **Many of the security prescription forms printed prior to January 1, 2019 have a serialized number already printed on them. Are the forms compliant if they contain a serialized number, or is it a different number?**

A: Prior to January 1, 2019, every batch of controlled substance prescription forms were required to have a lot number printed on the form, as well as a sequential number. They also had to have an identifying number assigned to the approved printer by the Department of Justice. None of these numbers meet the requirement of the new law. The serial new number will be a 15-digit alphanumeric serial number in the following format:

AAANNNNNNANNNNN
(A represents an alpha character and N represents a numeral)

3. **I was presented with a controlled substance prescription form that has a uniquely serialized number printed on it that is consistent with the alphanumeric number format above, but I'm still not sure the prescription form is compliant. Should I refuse to fill it?**

A: Always use your best professional judgment when filling prescriptions. However, contacting the prescriber to determine whether the controlled substance prescription form was printed by an approved security printer might assist you in determining if the form is legitimate. The approved list of security printers can be found on the following website: https://oag.ca.gov/security-printers/approved-list.

You might also want to consider if any other red flags are present when making your decision. The board's corresponding responsibility brochure can be found using the following link:
https://www.pharmacy.ca.gov/publications/corresponding_responsibility.pdf.

4. **Is the new uniquely serialized number required on e-scripts?**

A: No, the requirement does not apply to e-scripts (computer to computer). Prescribers are encouraged to E-prescribe whenever possible.

5. **As a result of AB 1753, the information that must be reported to CURES by a dispensing pharmacy, clinic or other dispenser was amended. Health and Safety Code 11165(d)(11) states, *"The serial number for the corresponding prescription form, if applicable"* must be reported. Does *"if applicable"* mean the serial number must be reported only if it is present on the form?**

A: No. A uniquely serialized number, in a manner prescribed by the Department of Justice, must be present on all controlled substance prescription forms. *"If applicable"* refers to those exceptions in which a serial number would not be available: E-scripts, telephone or verbal prescriptions for Schedule III-V controlled substances, faxed prescriptions, or prescriptions dispensed pursuant to HSC sections 11159.2, 11167 or 11167.5.

6. **Will the new controlled substance prescription forms have the new uniquely serialized number as well as all the other numbers that were previously required (lot number, sequential number and number assigned to the security printer)?**

A: Yes

7. **Can prescriptions for Schedule III through V controlled substances still be phoned in or faxed to a pharmacy?**

A: Yes. There have been no legal changes to the ability to phone in or fax prescriptions for Schedule III through V controlled substances

8. **We print on controlled substances prescription forms from the emergency department at our hospital pursuant to HSC 11162(c). Do we create our own serialized number? How do we get serialized numbers on the secure paper?**

A: Your hospital must order new controlled substances prescription forms for use by prescribers when treating patients in your facility. The serialized number is not one of the elements of the form that is exempt under this section.

9. **Providers have been asking me where they should go to get new controlled substance prescription forms with the new serialized numbers. Where can I direct them?**

A: The approved list of security printers can be found on the following website: https://oag.ca.gov/security-printers/approved-list.

10. If a controlled substance prescription was written in 2018 and has all the elements of a compliant prescription form, except the new serialized number, is it considered compliant?

A: Yes. Only controlled substance prescriptions written on or after January 1, 2019, must have the new serialized number printed on the controlled substance prescription form. Keep in mind that a controlled substances prescription may only be filled within the first six months of issuance.

11. If a Schedule III-V controlled substance prescription with refills was initially filled in 2018, can it be refilled after January 1, 2019, or do we need to get a new prescription that contains the new serialized number?

A: Only controlled substance prescription forms written on or after January 1, 2019, must have the new serialized number printed on the controlled substance prescription form.

12. How do we report the new serialized number to CURES?

A: You should contact your computer software vendor. You will need to ensure your system has a way to transmit the 15-digit serialized number to CURES.

13. If, based on my best judgment, I decide to fill a controlled substance prescription that is compliant in ALL ways, with the exception of the new serialized number, will I get in trouble with the DEA?

A: The change is in the California Health and Safety Code, not federal law. It is our understanding that the DEA enforces only federal law.

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Assembly
California Legislature

EVAN LOW
ASSEMBLYMEMBER, TWENTY-EIGHTH DISTRICT

COMMITTEES
CHAIR: BUSINESS AND PROFESSIONS
COMMUNICATIONS AND CONVEYANCE
ELECTIONS AND REDISTRICTING
GOVERNMENTAL ORGANIZATION
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AND INNOVATION CAUCUS

January 7, 2019

The Honorable Xavier Becerra
Attorney General, State of California
California Department of Justice
1300 I Street
Sacramento, CA 95814

Re: Implementation of Assembly Bill 1753

Dear Attorney General Becerra:

I write in regards to the implementation of legislation I authored, Assembly Bill 1753 (Chapter 479, Statutes of 2018). This bill was part of a comprehensive package introduced by the Assembly last year in a bipartisan effort to address the devastating opioid crisis. I appreciate the technical assistance your office provided in drafting the statutory language enacted through this legislation.

Since the Governor signed AB 1753 into law, I have heard from numerous impacted stakeholders that there is a persistent lack of clarity about how the legislation is being implemented. This has led to apprehension and uncertainty within the prescribing and dispensing communities. My hope with this letter is to elucidate the intent of the legislation I authored and urge the state agencies entrusted with carrying out its provisions to take care not to place any undue burden on patients.

As you know, the Department of Justice's Security Prescription Printers Program regulates the manufacturing of special tamper-resistant forms required for all paper prescriptions for controlled substances. AB 1753 enhanced the regulation of these forms by requiring unique serialization and improving how lost or stolen prescription pads are identified and tracked. The bill was supported by a broad coalition representing law enforcement, health professionals, and patient advocates.

The language in the bill was intentionally crafted to delegate significant discretion to the Department of Justice in determining how to most smoothly and effectively implement the new requirements. Specifically, the newly mandated serial number field is described only in broad terms by statute, simply stating that this field is to be adopted "in a manner prescribed by the Department of Justice." Additionally, the phrase "if applicable" was affixed to the inclusion of the serial number in statute's prescription reporting requirements to further allow for flexibility.

Throughout the passage of AB 1753, I shared an understanding with other engaged stakeholders that the wide latitude afforded to your department would allow for the serialization requirements to be developed and disseminated through a measured timeline that would facilitate a comfortable transition for the impacted health community. However, it appears your department only recently issued guidance regarding specifications for serialization and indicated that the number would be an immediate requirement for all prescriptions written or filled after January 1 of this year. Compliant forms were made available to prescribers less than two weeks prior to this deadline.

This unanticipated situation has reportedly already been problematic for health professionals. Physicians and other prescribers who have not had access to the new serialized forms are faced with the dilemma of whether to write prescriptions for needed medication on outdated prescription pads or prolong a patient's access to treatment. Meanwhile, I have been informed that numerous pharmacies have already turned away individuals holding prescriptions written on unserialized forms that are otherwise valid; in the face of possible discipline, dispensers are forced to decide between denying care to their patients and risking action against their licenses.

Our offices have been in communication as to whether the Department of Justice can and should promulgate regulations to incorporate greater transparency and stakeholder consultation to how the serial number requirement is being instituted. I would like to reiterate that such rulemaking, including potential language formally delaying part of AB 1753's requirements, would align with the author's intent to provide your department with implementation discretion. I further encourage the Department of Justice to be generally cognizant of how its decision-making may result in regulatory obstacles to the delivery of treatments to patients.

Additionally, I urge the regulatory boards with jurisdiction over licensed prescribers and dispensers to appropriately assess their enforcement priorities to allow for health professionals to confidently write and fill prescriptions that are in the best interest of patients without fear of reprisal as remaining uncertainties around AB 1753's implementation are reconciled. The priority for all agencies involved with carrying out the bill's provisions must be to ensure that legitimate medication needs are not obstructed. This urgency has been communicated to both the Board of Pharmacy and the Medical Board, and I am encouraged by their indication that licensees who otherwise exercise good judgment will not be unduly disciplined as a result of the present situation.

I believe that responsible action by state regulators is ultimately the best avenue for resolving the recent confusion regarding security prescription form requirements. I hope that your office will continue to work with its client agencies and other impacted stakeholders to resolve the outstanding conflicts. In the event that administrative solutions cannot be identified or enacted, I am committed to seeing that legislative action is taken to clarify statute as determined necessary.

Please continue your current practice of open communication and responsiveness in regards to how the Department of Justice is engaged on the issues described above. I greatly appreciate your leadership and remain available to assist in any way I can. If you have any questions, please contact my Chief of Staff, Gina Frisby, at (916) 319-2028.

Sincerely,

EVAN LOW
Assembly District 28

cc: Dean Grafilo, Director, Department of Consumer Affairs
California State Board of Pharmacy
Medical Board of California

MEDICAL BOARD
OF CALIFORNIA
Protecting consumers by advancing high quality, safe medical care.

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Governor Edmund G. Brown Jr., State of California | Business, Consumer Services and Housing Agency | Department of Consumer Affairs

MEMORANDUM

Date: December 28, 2018

To: Physician Prescribers

From: Medical Board of California

Subject: **AB 1753 (Low, Chapter 479)**

Assembly Bill 1753 (Low, Chapter 479) was signed into law in 2018 and becomes effective on January 1, 2019. This bill requires controlled substance security prescription forms to include a unique serialized number in a format approved by the Department of Justice (DOJ). This bill did not include any transition period to allow for continued use of old controlled substance security prescription forms on or after January 1, 2019.

Pharmacists and pharmacies will be looking for the unique serialization numbers on controlled substance security prescription forms on and after January 1, 2019. The Board encourages physician prescribers to utilize the new forms that include the serialization number. However, if you are unable to obtain the new prescription forms by January 1, 2019, please be aware that the Enforcement Committee of the Board of Pharmacy has recommended that the Board of Pharmacy not make any investigation or action a priority that is against a pharmacist who, in the exercise of his or her professional judgment, determines that it is in the best interest of patient or public health or safety to nonetheless fill such prescription.

The Board of Pharmacy is urging pharmacists and pharmacies to exercise their best judgment in handling these situations, and sent a notice reminding pharmacists and pharmacies of the following possible responses:

- Communicating with the prescriber about the need for a compliant security prescription;
- Advising the prescriber to substitute an electronic prescription;
- Consulting with the prescriber about whether the patient might be terminally ill and eligible for a "11159.2 exemption" prescription under Health and Safety Code section 11159.2;
- Treating prescription orders written on the outdated forms for Schedule III, IV and V medications as oral prescriptions, and verifying the order telephonically with the prescriber's office, pursuant to Health and Safety Code section 11164, subdivision (b);
- Schedule II prescriptions on non-compliant security prescription forms present unique challenges, because of the inability to substitute an oral prescription. It is therefore especially important that pharmacists use their best professional judgement to get

needed Schedule II medications to their patients, and the same enforcement priority will be applied to these dispensing decisions until July 1, 2019.

- If failure to dispense may result in loss of life or intense suffering, dispensing pursuant to the emergency situation requirements of Health and Safety Code section 11167, and curing with a compliant controlled substance security prescription form within seven (7) days; and
- Refusing to fill the prescription.

Again, physician prescribers are encouraged to utilize controlled substance security prescription forms with a unique serialized number, as pharmacies and pharmacists will be identifying prescribers who do not timely transition to the new security prescription forms to the appropriate prescribing board, so that compliance can be encouraged.

For additional information regarding security printers or the serialized number format, please contact the Department of Justice at (916) 210-3216 or securityprinter@doj.ca.gov. You can also review the information disseminated by the Board of Pharmacy and the language in AB 1753.

From: General Board of Pharmacy Subscriber List <PHARM-GENERAL@DCALISTS.CA.GOV> On Behalf Of California State Board of Pharmacy

Sent: Wednesday, January 9, 2019 6:12 PM

Subject: Joint Statement from the California Department of Justice, California State Board of Pharmacy, and the Medical Board of California Regarding Secure Prescription Forms

Joint Statement from the California Department of Justice, California State Board of Pharmacy, and the Medical Board of California Regarding Secure Prescription Forms

As of January 1, 2019, California law requires prescription forms for controlled substances to be printed with a uniquely serialized number. Notices explaining the serial number format and reporting requirements have been released by the Department of Justice (DOJ). Additionally, notices to prescribers and pharmacists were issued by the California State Board of Pharmacy (Pharmacy Board), and by the Medical Board of California (Medical Board), yet questions remain about implementation. This joint statement by DOJ, the Pharmacy Board, and the Medical Board is therefore being issued to provide further clarification and guidance on implementation.

As explained in previous notices from the Pharmacy Board and Medical Board, because of the absence of a grandfathering or transition period in Assembly Bill (AB) 1753 (Low), which enacted this change, as of January 1, 2019, only security forms with unique serialized numbers may lawfully be used to write paper controlled substance prescriptions. As of that date, any paper controlled substance prescription written on a controlled substance security prescription form that does not bear all of the 15 security features will be presumptively invalid.

DOJ has issued guidance to the Security Printers and the pharmacy and direct dispense data reporters regarding the approved serialized number format and reporting requirements. The DOJ has approved 38 security printers that are compliant with the new requirement. However, the signatories to this joint statement recognize that it may take some time for all prescribers to begin using the new, fully-compliant security forms. And that there may be a period of weeks or months during which prescribers continue to use outdated security forms, and those outdated forms are presented to dispensers.

Prescribers are encouraged to procure compliant security forms at their earliest opportunity. In the interim, however, none of the signatory agencies want to see patients denied access to necessary medications during this transition period. With that in mind, the Enforcement Committee of the Pharmacy Board has recommended to the Pharmacy Board and the Executive Officer that, prior to July 1, 2019, enforcement staff not make an enforcement priority of actions against and/or investigations of pharmacists (or their employing pharmacies) who, in the exercise of his or her best professional judgment, determine that it is in the best interest of patient or public health or safety to fill a controlled substance prescription written on a security form that would have been compliant prior to January 1, 2019. Further, to assist pharmacists, pharmacies, and other dispensers with implementation challenges, the Pharmacy Board has told its licensees to consider the following responses to presentation of an outdated form:

(a) Communicating with the prescriber about the need for a compliant security prescription;
(b) Advising the prescriber to substitute an electronic prescription;
(c) Consulting with the prescriber about whether the patient might be terminally ill and eligible for a "11159.2 exemption" prescription under Health and Safety Code section 11159.2;

(d) Treating prescription orders written on the outdated forms for Schedule III, IV and V medications as oral prescriptions, and verifying the order telephonically with the prescriber's office, pursuant to Health and Safety Code section 11164, subdivision (b);
(e) Schedule II prescriptions on non-compliant security prescription forms present unique challenges, because of the inability to substitute an oral prescription. It is therefore especially important that pharmacists use their best professional judgment to get needed Schedule II medications to their patients, and the same lack of enforcement priority will be applied to these dispensing decisions until July 1, 2019.
(f) If failure to dispense may result in loss of life or intense suffering, dispensing pursuant to the emergency situation requirements of Health and Safety Code section 11167, and curing with a compliant controlled substance security prescription form within seven (7) days;
(g) Refusing to fill the prescription.

Prescribers should expect to receive calls from dispensers seeking to validate such prescriptions.

Frequently Asked Questions

1. Who is responsible for enforcing the provisions required of the Security Printers?

   Answer: The DOJ oversees the Security Printer Program and the approved printers who are required, beginning on January 1, 2019, to print controlled substance prescription forms with uniquely serialized numbers. There is no transition or grace period for printers to become compliant with the requirement to print controlled substance prescription forms with uniquely serialized numbers. Security printers that are not compliant with the new printing requirement, as of January 1, 2019, may have their security printer status suspended.

2. Previous communications have indicated that there is no transition period for prescriptions written after January 1, 2019 without a serial number. Who would enforce provisions against dispensers that determine it is in the best interest of the patient to dispense a medication issued on a form that does not include a serial number?

   Answer: The Enforcement Committee of the Pharmacy Board has recommended to the Pharmacy Board and the Executive Officer that, prior to July 1, 2019, investigative staff not make an enforcement priority of actions against and/or investigations of pharmacists (or their employing pharmacies) who, in the exercise of his or her best professional judgment, determine that it is in the best interest of patient or public health or safety to fill a controlled substance prescription written on a security form that would have been compliant prior to January 1, 2019.

   The DOJ does not have the authority to enforce such provisions on dispensers.

3. Previous communications have indicated that there is no transition period for prescriptions written after January 1, 2019, without a serial number. Who would enforce provisions against prescribers that determine it is in the best interest of the patient to prescribe on a form that does not include a serial number?

   Answer: The Medical Board is responsible for enforcing the provisions related to physician prescribers and is encouraging physician prescribers to obtain and utilize the new controlled substance security prescription forms that contain the serial number as soon as possible. If you are a licensee of another board, you are encouraged to contact the appropriate licensing board for direction.

The DOJ does not have the authority to enforce such provisions on prescribers.

4. As a prescriber, will I be assigned or issued a serial number?

   Answer: No, prescribers will not be issued a serial number. The serial number is a number printed on prescription forms produced by approved security printers.

5. Is there a sample of what the new security forms look like?

   Answer: The Health and Safety Code establishes the required elements, but does not specify the placement of all security form features. As such, not all forms look the same. The DOJ has a list of approved Security Prescription Printers on its website that can be accessed using the following link - - https://oag.ca.gov/security-printers/approved-list. Some of the vendors have a sample of the compliant form on their respective website.

6. Is there a standardized format for the serialized number?

   Answer: Yes. The serial number is a 15-digit alphanumeric in the following format:

   AAANNNNNNANNNNN (A represents an alpha character and N represents a numeral)

7. Are electronic prescriptions required to include the unique serial number?

   Answer: No

8. Who should I contact if I have questions?

   Answer: Questions regarding the security printers or the serialized number format should be directed to the DOJ, 916-210-3216 or securityprinter@doj.ca.gov.

Questions regarding prescriber or pharmacist/dispenser requirements should be directed to the respective board under the Department of Consumer Affairs. The following link can be used to access the respective prescribing boards - - https://www.dca.ca.gov/about_us/entities.shtml.

Questions regarding pharmacy requirements should be directed to the Pharmacy Board, 916-574-7900.

Please watch for additional advisories to be released as all agencies are working to identify further real-time solutions.

Thank you.

California State Board of Pharmacy
Medical Board of California
California Department of Justice

Enhanced Sterile Medication Compounding Evaluation

Robert Campbell, PharmD
Pharmacist, Standard Interpretation
Division of Healthcare Improvement

The Joint Commission

The Joint Commission

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The Joint Commission
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The Official Newsletter of The Joint Commission
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Reducing Risk Associated with Sterile Medication Compounding

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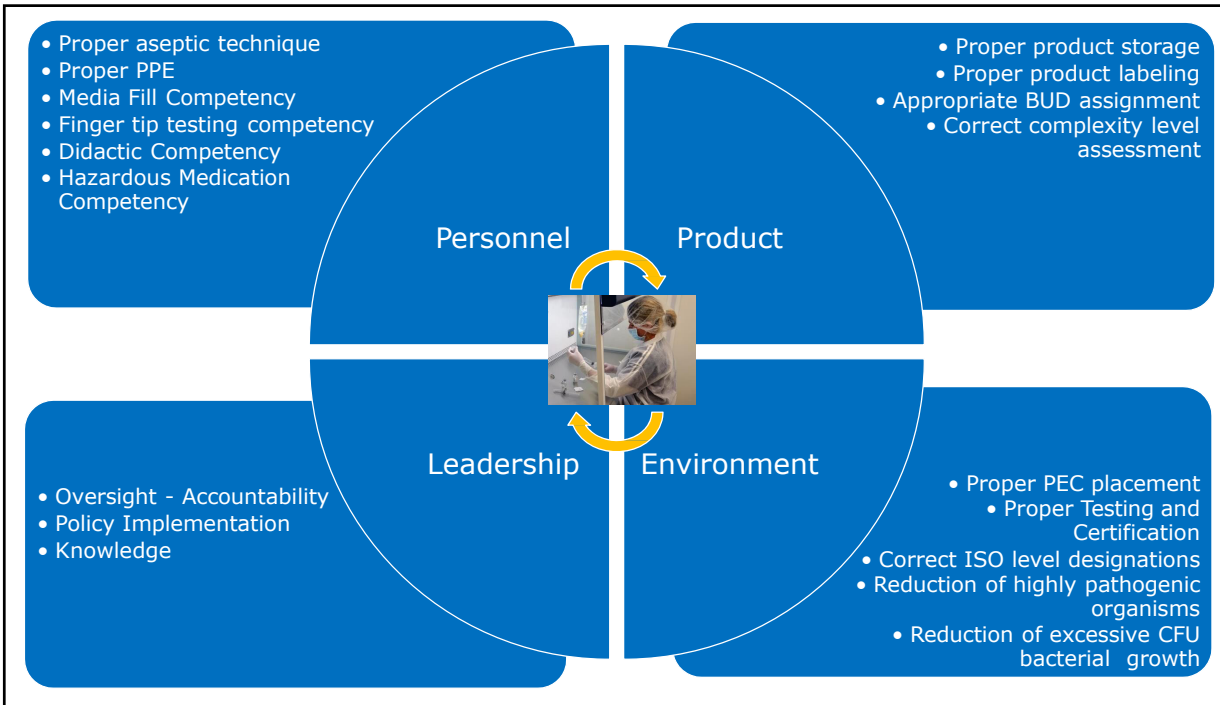
Accreditation chapters utilized

- Environment of Care
- Human Resources
- Infection Control
- Leadership
- Medication Management

No new standards were written for hospital accreditation program



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Survey process

- Competencies
- Evaluation of environment
- Review of test/certification reports of engineering controls
- Observation of compounding process
- Labeling and storage

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Competencies

Competencies

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- Fingertip testing
  - Initial and ongoing
- Media fill test
  - Match most complex level of compounding
- Didactic test
  - Must establish a passing level
- Observation of handwashing and donning PPE

Competencies frequency

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- Low-Risk and Medium-Risk Sterile
  - Annually for staff performing
    - defined as every 12 months +/- one month
- High-Risk Sterile Compounding
  - Every 6 months

Evaluation of the Compounding Environment

Compounding environment

Walls
- Surface should be smooth
- Resistant to cleaning activities
- Where flooring meets walls should be evaluated
  - Typical installation leaves a ledge that creates risk for dusk accumulation

Floors
- Must be solid

Ceilings
- Either solid surface or if drop in tiles
  - Tiles must be sealed
  - Tiles must be caulked into the support framing
- Sprinkler heads

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Testing/Certification Reports Review

Primary Engineering Control (PEC) Certification/Testing Requirements

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Test every 6 months (or if the PEC is relocated or moved)	Result Required
ISO Level	5 or better (less)
Air Microbial Sampling	≤ 1 cfu/cubic meter [1000 liters] of air per plate *
Surface Microbial Sampling	≤ 3 cfu/ contact plate *
Air velocity	Per Manufactures Requirements
HEPA filter leak test	No leak greater than 0.01%

*Evidence of remediation along with re-culturing is required when CFU count is exceeded or for any CFU of highly pathogenic organisms.

Secondary Engineering Control (SEC) Certification/Testing Requirements

The Joint Commission

Test every 6 months	Ante Room Requirement	Buffer Room Requirement
ISO level	8 or better	7 or better
HEPA filter leak test	PASS	PASS
Room air exchanges	30 ACPH	30 ACPH (no more than 15 can be supplied by hood)
Room pressurization	+	N.H. +0.02" w/c H - 0.01" w/c
Surface microbial sampling	≤ 100 cfu/ contact plate *	≤ 5 cfu/ contact plate *
Air microbial sampling	≤ 100 cfu/cubic meter *	≤ 10 cfu/cubic meter *

*Evidence of remediation along with re-culturing is required when CFU count is exceeded or for any CFU of highly pathogenic organisms.

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Compounding Direct Observation

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Compounding Observation

- Item placement
- Protecting critical sites
- Single dose vial use and labeling
- Large volume bag use and labeling
- Correct Primary Engineering Control used

Labeling and Storage

Labeling and storage

- Beyond use date (BUD) application
- BUD must match compounding complexity and storage
- Evaluating items returned to the pharmacy
- Addressing re-dispensed items

Suggested Compliance Tactics

- Perform a GAP analysis of Engineering Control Testing and Certification
- Perform a GAP analysis of Compounding Operations
- Complete periodic evaluations of practices occurring in the compounding suite
- Develop a quality dashboard for Sterile Compounding
- Make Sterile Compounding an organizational priority

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Frequently Asked Questions

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Posted Frequently asked questions

Medication - Concentrated KCL definition

Medication - Licensed Independent Practitioner Controlled - Pharmacy Review

Featured ! New ! Medication - Sterile Compounding - Compounding Staff Competency Requirements

Featured ! New ! Medication - Sterile Compounding - Exending Beyond Use Dates (BUD) with Closed System Transfer Devices (CSTD)

Featured ! New ! Medication - Sterile Compounding - Low Volume Hazardous Medication Preparation

Featured ! New ! Medication - Sterile Compounding - Nurse Competency Requirements

Featured ! New ! Medication - Sterile Compounding - Personal Protective Equipment (PPE) Requirements with Compounding Isolators

Featured ! New ! Medication - Sterile Compounding - Primary Engineering Control (PEC) Testing/Certification Requirements

Featured ! New ! Medication - Sterile Compounding - Secondary Engineering Control (SEC) Testing/Certification Requirements

Featured ! New ! Medication - Sterile Compounding - Segregated Compounding Area (SCA)

Featured ! New ! Medication - Sterile Compounding - Testing/Certification Remediation Requirements for Primary and Secondary Engineering

Featured ! New ! Medication - Sterile Compounding - Unit Dose Alcohol Swabs

Featured ! New ! Medication - Sterile Compounding - Using Primary and Secondary Engineering Controls with Testing/Certification Failures

Medication Administration - Incorporating Patient Preference Into Medication Administration Practices

Have Questions….. Need Answers?

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