



CALIFORNIA  
**HOSPITAL**  
ASSOCIATION

*Providing Leadership in  
Health Policy and Advocacy*

Medication Safety Committee Guidelines

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# **Emergency Department Medication Management Safety Tool**

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## REVISION LOG

VERSION	DATE	AUTHOR	CHANGES
0.1	November 2013	Med-ER Workgroup	Initial Draft
1.0	April 2014	Med-ER Workgroup	Final draft approved by committee

## INTRODUCTION

More and more, healthcare professionals and regulators are turning their focus to mitigating risk for medication management in the emergency department. Reducing opportunities for medication error and increasing the opportunities for a safe medication management environment represents a prime opportunity to improve the healthcare delivery system – and helping your organization do so is the goal of this tool.

When using this tool, consider using it as a gap analysis tool that sets out two benchmarks:

- **Recommended** which is considered a minimal level of care which all institutions should strive to meet as a baseline level of care, and
- **Ideal** which is an optimal level of care to strive toward, recognizing that it may or may not be fully attainable at a given hospital.

If your institution does not meet the “recommended” level, consider conducting analysis to determine pathways for meeting this benchmark. However, once the **recommended** level is obtained, consider ways to then move toward the **ideal** benchmark level of care. The **Medication Management Elements** are intended to assist with development of a formal plan to minimize medication related events described in Health and Safety Code Section 1339.63, and address elements routinely used in CDPH MERP surveys.

This tool has been reviewed by the California Hospital Association’s Medication Safety Committee, and is intended for hospital and health care providers for consideration as they evaluate current practices and develop specific programs. **This tool is not to be viewed as fixed protocol that must be followed, nor is it entirely inclusive or exclusive of all methods of reasonable care that can obtain/produce the same results.** The CHA’s Medication Safety Committee is a voluntary collaborative supported by the CHA, and is comprised of CHA member hospitals and non-hospital representatives.

Information contained in this tool should not be construed as legal advice or used to resolve legal problems by health care facilities or practitioners without first consulting legal counsel. It is important to note that facilities must adhere to all relevant state and federal regulations and statutes governing operations and practice.

## COMMITTEE REPRESENTATION

The Medication Safety Committee includes nurse, physician, and pharmacist representatives.

## EMERGENCY DEPARTMENT MEDICATION MANAGEMENT SAFETY TOOL

Med Mgmt. Element	SMALL		MEDIUM		LARGE	
	Recommended	Ideal	Recommended	Ideal	Recommended	Ideal
<b>PRESCRIBING</b>	<b>Utilize:</b> <ul style="list-style-type: none"> <li>Order sets</li> <li>Protocols</li> <li>Guidelines</li> </ul> <b>Verify:</b> <ul style="list-style-type: none"> <li>Allergy info</li> </ul>	<b>CPOE:</b> <ul style="list-style-type: none"> <li>Allergy verification hard stop</li> <li>Weight-based dosing for pediatric populations</li> </ul> <i>(Includes clinical decision support tools)</i>	<b>CPOE:</b> <ul style="list-style-type: none"> <li>Allergy verification hard stop</li> <li>Weight-based dosing for pediatric populations</li> </ul> <i>(Includes clinical decision support tools)</i>	<b>CPOE - Includes, But Not Limited To:</b> <ul style="list-style-type: none"> <li>Allergy verification hard stop</li> <li>Weight-based dosing for pediatric populations</li> <li>Standardized order sets, best practice drug information hyperlinks and best practice physician alerts</li> </ul> <i>(Includes clinical decision support tools)</i>	<b>CPOE - Includes, But Not Limited To:</b> <ul style="list-style-type: none"> <li>Allergy verification hard stop</li> <li>Weight-based dosing for pediatric populations</li> <li>Standardized order sets, best practice drug information hyperlinks and best practice physician alerts</li> </ul>	<b>CPOE - Includes, But Not Limited To:</b> <ul style="list-style-type: none"> <li>Allergy verification hard stop</li> <li>Weight-based dosing for pediatric populations</li> <li>Standardized order sets, best practice drug information hyperlinks and best practice physician alerts</li> </ul> <i>(Includes clinical decision support tools)</i>
<b>RX ORDER COMMUNICATION</b>	<b>Utilize:</b> <ul style="list-style-type: none"> <li>Order sets</li> <li>Protocols</li> <li>Guidelines</li> </ul> <b>Verify:</b> <ul style="list-style-type: none"> <li>Allergy info</li> </ul>	<b>CPOE:</b> <ul style="list-style-type: none"> <li>Allergy verification hard stop</li> <li>Weight-based dosing for pediatric populations</li> </ul> <i>(Includes clinical decision support tools)</i>	<b>Emergent:</b> <ul style="list-style-type: none"> <li>Repeat-back</li> </ul> <b>Non-Emergent:</b> <ul style="list-style-type: none"> <li>CPOE</li> </ul>	<b>Emergent:</b> <ul style="list-style-type: none"> <li>Repeat-back</li> </ul> <b>Non-Emergent:</b> <ul style="list-style-type: none"> <li>CPOE</li> </ul>	<b>Emergent:</b> <ul style="list-style-type: none"> <li>Repeat-back</li> </ul> <b>Non-Emergent:</b> <ul style="list-style-type: none"> <li>CPOE</li> </ul>	<b>Emergent:</b> <ul style="list-style-type: none"> <li>Repeat-back</li> </ul> <b>Non-Emergent:</b> <ul style="list-style-type: none"> <li>CPOE</li> </ul>
<b>LABELING</b>	<b>Incorporate:</b> <ul style="list-style-type: none"> <li>Tall Man Lettering</li> <li>Look-alike/sound-alike warnings</li> </ul>	<b>Incorporate:</b> <ul style="list-style-type: none"> <li>Tall Man Lettering</li> <li>Look-alike/sound-alike warnings</li> </ul>	<b>Incorporate:</b> <ul style="list-style-type: none"> <li>Tall Man Lettering</li> <li>Look-alike/sound-alike warnings</li> </ul>	<b>Incorporate:</b> <ul style="list-style-type: none"> <li>Tall Man Lettering</li> <li>Look-alike/sound-alike warnings</li> </ul>	<b>Incorporate:</b> <ul style="list-style-type: none"> <li>Tall Man Lettering</li> <li>Look-alike/sound-alike warnings</li> </ul>	<b>Incorporate:</b> <ul style="list-style-type: none"> <li>Tall Man Lettering</li> <li>Look-alike/sound-alike warnings</li> </ul>
<b>PACKAGING</b>	<b>Liquids (or Oral IV):</b> <ul style="list-style-type: none"> <li>Smallest Size Possible</li> <li>Minimize # of IV Product Concentrations <i>(utilize manufacturer pre-made IV products when possible)</i></li> </ul> <b>Oral Solids:</b> <ul style="list-style-type: none"> <li>Unit Dose</li> <li>Barcoded</li> </ul>	<b>Liquids (or Oral IV) :</b> <ul style="list-style-type: none"> <li>Unit Dose</li> <li>Barcoded</li> <li>Minimize # of IV Product Concentrations <i>(utilize manufacturer pre-made IV products when possible)</i></li> </ul> <b>Oral Solids:</b> <ul style="list-style-type: none"> <li>Unit Dose</li> <li>Barcoded</li> </ul>	<b>Liquids (or Oral IV):</b> <ul style="list-style-type: none"> <li>Smallest Size Possible</li> <li>Minimize # of IV Product Concentrations <i>(utilize manufacturer pre-made IV products when possible)</i></li> </ul> <b>Oral Solids:</b> <ul style="list-style-type: none"> <li>Unit Dose</li> <li>Barcoded</li> </ul>	<b>Liquids (or Oral IV):</b> <ul style="list-style-type: none"> <li>Unit Dose</li> <li>Barcoded</li> </ul> <b>Oral Solids:</b> <ul style="list-style-type: none"> <li>Unit Dose</li> <li>Barcoded</li> </ul> <b>Injectables:</b> <ul style="list-style-type: none"> <li>-Unit Dose</li> <li>-Barcoded</li> <li>-Minimize # of IV Product Concentrations <i>(utilize manufacturer pre-made IV products when possible)</i></li> </ul>	<b>Liquids (or Oral IV):</b> <ul style="list-style-type: none"> <li>Smallest Size Possible</li> <li>Minimize # of IV Product Concentrations <i>(utilize manufacturer pre-made IV products when possible)</i></li> </ul> <b>Oral Solids:</b> <ul style="list-style-type: none"> <li>Unit Dose</li> <li>Barcoded</li> </ul> <b>Injectables:</b> <ul style="list-style-type: none"> <li>-Unit Dose</li> <li>-Barcoded</li> <li>-Minimize # of IV Product Concentrations <i>(utilize manufacturer pre-made IV products when possible)</i></li> </ul>	<b>Liquids (or Oral IV):</b> <ul style="list-style-type: none"> <li>Unit Dose</li> <li>Barcoded</li> <li>Minimize # of IV Product Concentrations <i>(utilize manufacturer pre-made IV products when possible)</i></li> </ul> <b>Oral Solids:</b> <ul style="list-style-type: none"> <li>Unit Dose</li> <li>Barcoded</li> </ul> <b>Injectables:</b> <ul style="list-style-type: none"> <li>-Unit Dose</li> <li>-Barcoded</li> <li>-Minimize # of IV Product Concentrations <i>(utilize manufacturer pre-made IV products when possible)</i></li> </ul>

## EMERGENCY DEPARTMENT MEDICATION MANAGEMENT SAFETY TOOL

Med Mgmt. Element	SMALL		MEDIUM		LARGE	
	Recommended	Ideal	Recommended	Ideal	Recommended	Ideal
<b>COMPOUNDING</b>	<p><b>During Pharmacy Operating Hours:</b></p> <ul style="list-style-type: none"> <li>Utilize laminar flow hood</li> <li>Ensure Beyond-Use Dating matches USP 797 risk level</li> </ul> <p><b>After Hours &amp; Emergency Situations:</b></p> <ul style="list-style-type: none"> <li>Utilize ER designated clean area</li> <li>Appropriate sterile competencies present</li> </ul>	<p><b>During Pharmacy Operating Hours:</b></p> <ul style="list-style-type: none"> <li>USP 797 compliant area</li> <li>Ensure Beyond-Use Dating matches USP 797 risk level</li> </ul> <p><b>After Hours &amp; Emergency Situations:</b></p> <ul style="list-style-type: none"> <li>Utilize ER designated clean area</li> <li>Appropriate sterile competencies present</li> </ul>	<p><b>During Pharmacy Operating Hours:</b></p> <ul style="list-style-type: none"> <li>USP 797 compliant area</li> <li>Ensure Beyond-Use Dating matches USP 797 risk level</li> </ul> <p><b>After Hours &amp; Emergency Situations:</b></p> <ul style="list-style-type: none"> <li>Utilize ER designated clean area</li> <li>Appropriate sterile competencies present</li> </ul>	<p><b>During Pharmacy Operating Hours:</b></p> <ul style="list-style-type: none"> <li>USP 797 compliant area</li> <li>Ensure Beyond-Use Dating matches USP 797 risk level</li> </ul> <p><b>After Hours &amp; Emergency Situations:</b></p> <ul style="list-style-type: none"> <li>Utilize ER designated clean area</li> <li>Appropriate sterile competencies present</li> </ul>	<p><b>During Pharmacy Operating Hours (24 hours):</b></p> <ul style="list-style-type: none"> <li>USP 797 compliant area</li> <li>Ensure Beyond-Use Dating matches USP 797 risk level</li> </ul> <p><b>Emergency Situations:</b></p> <ul style="list-style-type: none"> <li>Utilize ER designated clean area</li> <li>Appropriate sterile competencies present</li> </ul>	<p><b>During Pharmacy Operating Hours (24 hours):</b></p> <ul style="list-style-type: none"> <li>USP 797 compliant area</li> <li>Ensure Beyond-Use Dating matches USP 797 risk level</li> </ul> <p><b>Emergency Situations:</b></p> <ul style="list-style-type: none"> <li>Utilize ER designated clean area</li> <li>Appropriate sterile competencies present</li> </ul>
<b>Dispensing</b>	<p><b>Utilize</b> automated dispensing machine</p> <p><b>Prevent</b> after-hours use of pharmacy by stocking ADM with sufficient quantities of medications and enabling "non-profile" feature</p> <p><b>Enable</b> ADM "profile" feature, and allow for either concurrent or retrospective review of medication overrides if resources and manpower allow for it and in consideration of HR-HA population needs</p> <p><b>Enable</b> available alert features on ADM</p> <p><b>Review</b> ADM content monthly for appropriateness</p> <p><i>NOTE: See administration section for additional safeguards to use with these strategies</i></p>	<p><b>Utilize</b> automated dispensing machine</p> <p><b>Enable</b> ADM "profile" feature, and allow for review of medication overrides</p> <p><b>Enable</b> ADM "profile" feature, and allow for either concurrent or retrospective review of medication overrides if resources and manpower allow for it and in consideration of HR-HA population needs</p> <p><b>Review</b> ADM content monthly for appropriateness</p> <p><b>Ensure</b> "on-call" pharmacist is available for emergency dispensing</p>	<p><b>Utilize</b> automated dispensing machine</p> <p><b>Enable</b> ADM "profile" feature, and allow for review of medication overrides</p> <p><b>Enable</b> ADM "profile" feature, and allow for either concurrent or retrospective review of medication overrides if resources and manpower allow for it and in consideration of HR-HA population needs</p> <p><b>Review</b> ADM content monthly for appropriateness</p> <p><b>Ensure</b> "on-call" pharmacist is available for emergency dispensing</p> <p><b>Enable</b> ADM "profile" feature if facility has ability to provide 24-hour order verification</p>	<p><b>Utilize</b> automated dispensing machine</p> <p><b>Review</b> ADM content monthly for appropriateness</p> <p><b>Enable</b> ADM "profile" feature, and allow for review of medication overrides</p> <p><i>NOTE: see monitoring section for concurrent order</i></p> <p><i>NOTE: See monitoring section for pharmacist review guidelines</i></p>	<p><b>Utilize</b> automated dispensing machine</p> <p><b>Review</b> ADM content monthly for appropriateness</p> <p><b>Enable</b> ADM "profile" feature, and allow for review of medication overrides</p> <p><i>NOTE: See monitoring section for concurrent order verification</i></p>	<p><b>Utilize</b> automated dispensing machine</p> <p><b>Review</b> ADM content monthly for appropriateness</p> <p><b>Enable</b> ADM "profile" feature, and allow for review of medication overrides</p> <p><i>NOTE: See monitoring section for concurrent order verification</i></p>

## EMERGENCY DEPARTMENT MEDICATION MANAGEMENT SAFETY TOOL

Med Mgmt. Element	SMALL		MEDIUM		LARGE	
	Recommended	Ideal	Recommended	Ideal	Recommended	Ideal
<b>Distribution</b>	<p><b>Pharmacy:</b></p> <ul style="list-style-type: none"> <li>Controls or directs medication distribution (to the extent possible allowed for by operating hours)</li> <li>Distributes ER medications in most ready to use formulation available</li> </ul>	<p><b>Pharmacy:</b></p> <ul style="list-style-type: none"> <li>Controls or directs medication distribution (to the extent possible allowed for by operating hours)</li> <li>Distributes ER medications in most ready to use formulation available</li> </ul>	<p><b>Pharmacy:</b></p> <ul style="list-style-type: none"> <li>Controls or directs medication distribution (to the extent possible allowed for by operating hours)</li> <li>Distributes ER medications in most ready to use formulation available</li> </ul>	<p><b>Pharmacy:</b></p> <ul style="list-style-type: none"> <li>Controls or directs medication distribution</li> <li>Distributes ER medications in most ready to use formulation available</li> </ul>	<p><b>Pharmacy:</b></p> <ul style="list-style-type: none"> <li>Controls or directs medication distribution</li> <li>Distributes ER medications in most ready to use formulation available</li> <li>Delivers specialty items</li> <li>Utilizes advanced technology with features for secure medication delivery</li> </ul>	<p><b>Pharmacy:</b></p> <ul style="list-style-type: none"> <li>Controls or directs medication distribution</li> <li>Distributes ER medications in most ready to use formulation available</li> <li>Delivers specialty items</li> <li>Utilizes advanced technology with features for secure medication delivery</li> </ul>
<b>Administration</b>	<p><b>Implement</b> independent double checks for caregivers administering High Risk-High Alert medications</p>	<p><b>Implement</b> independent double checks for caregivers administering High Risk-High Alert medications</p> <p><b>Employ</b> barcode medication administration using an EHR system</p>	<p><b>Implement</b> independent double checks for caregivers administering High Risk-High Alert medications</p> <p><b>Employ</b> barcode medication administration using an EHR system</p>	<p><b>Implement</b> independent double checks for caregivers administering High Risk-High Alert medications</p> <p><b>Employ</b> barcode medication administration using an EHR system</p>	<p><b>Implement</b> independent double checks for caregivers administering High Risk-High Alert medications</p> <p><b>Employ</b> barcode medication administration using an EHR system</p>	<p><b>Implement</b> independent double checks for caregivers administering High Risk-High Alert medications</p> <p><b>Employ</b> barcode medication administration using an EHR system</p>
<b>Education</b>	<p><b>Current drug information resources</b> are available to practitioners in a form that is readily available</p> <p><b>Pharmacy</b> takes an active role in medication education</p>	<p><b>Current drug information resources</b> are available to practitioners in a form that is readily available</p> <p><b>Pharmacy</b> takes an active role in medication education</p>	<p><b>Current drug information resources</b> are available to practitioners in a form that is readily available</p> <p><b>EHR System</b> contains decision support tools and best practice links</p> <p><b>Pharmacy</b> takes an active role in medication education</p>	<p><b>Current drug information resources</b> are available to practitioners in a form that is readily available</p> <p><b>EHR System</b> contains decision support tools and best practice links</p> <p><b>Pharmacy</b> takes an active role in medication education</p>	<p><b>Current drug information resources</b> are available to practitioners in a form that is readily available</p> <p><b>EHR System</b> contains decision support tools and best practice links</p> <p><b>Pharmacy</b> takes an active role in medication education</p>	<p><b>Current drug information resources</b> are available to practitioners in a form that is readily available</p> <p><b>EHR System</b> contains decision support tools and best practice links</p> <p><b>Pharmacy</b> takes an active role in medication education</p>
<b>Monitoring</b>	<p><b>Retrospective Review:</b></p> <ul style="list-style-type: none"> <li>Review sample cohort representative of patient population (for example, at-risk patient populations such as pediatrics and/or geriatrics)</li> </ul>	<p><b>Concurrent Review:</b></p> <ul style="list-style-type: none"> <li>Review orders</li> </ul>	<p><b>Concurrent Review:</b></p> <ul style="list-style-type: none"> <li>ER patients being held for admission to an inpatient bed</li> </ul> <p><b>Retrospective Review:</b></p> <ul style="list-style-type: none"> <li>Review sample cohort representative of patient population (for example, at-risk patient populations such as pediatrics and/or geriatrics)</li> </ul>	<p><b>Concurrent Review:</b></p> <ul style="list-style-type: none"> <li>Review orders</li> </ul>	<p><b>Concurrent Review:</b></p> <ul style="list-style-type: none"> <li>ER patients being held for admission to an inpatient bed</li> </ul> <p><b>Retrospective Review:</b></p> <ul style="list-style-type: none"> <li>Review sample cohort representative of patient population (for example, at-risk patient populations such as pediatrics and/or geriatrics)</li> </ul>	<p><b>Concurrent Review:</b></p> <ul style="list-style-type: none"> <li>Review orders</li> </ul>

## EMERGENCY DEPARTMENT MEDICATION MANAGEMENT SAFETY TOOL

Med Mgmt. Element	SMALL		MEDIUM		LARGE	
	Recommended	Ideal	Recommended	Ideal	Recommended	Ideal
Use	<p><b>Regularly evaluate medication use processes</b> and identify system vulnerabilities - e.g., including but not limited to, chart review, direct observations, etc.</p>	<p><b>Retrospective Medication Utilization Evaluation (MUE):</b> potential focus areas are at-risk populations in emergent situations quarterly or at a regularly defined interval</p> <p><b>Regularly evaluate medication use processes</b> and identify system vulnerabilities - e.g., including but not limited to, chart review, direct observations, etc.</p>	<p><b>Retrospective Medication Utilization Evaluation (MUE):</b> potential focus areas are at-risk populations in emergent situations quarterly or at a regularly defined interval</p> <p>Consider utilizing an ER pharmacist for at least 8 hours a day, 7 days a week</p> <p><i>Note: Entities which do not utilize pharmacists in the ER should consider increasing the frequency of MUE's</i></p>	<p><b>Retrospective Medication Utilization Evaluation (MUE):</b> potential focus areas are at-risk populations in emergent situations quarterly or at a regularly defined interval</p> <p>Consider adding additional pharmacy resources beyond the 8 hour per-day minimum</p>	<p><b>Retrospective Medication Utilization Evaluation (MUE):</b> potential focus areas are at-risk populations in emergent situations quarterly or at a regularly defined interval</p> <p>Consider utilizing an ER pharmacist for at least 16 hours a day, 7 days a week</p>	<p><b>Retrospective Medication Utilization Evaluation (MUE):</b> potential focus areas are at-risk populations in emergent situations quarterly or at a regularly defined interval</p> <p>For large-sized hospitals, consider utilizing an ER pharmacist 24/7</p>