Using ISMP Self-Assessments to improve medication safety in your hospital

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Disclosures

• The presenter does not have any financial relationships relevant to this activity
Objectives

• At the completion of this activity, the participant will be able to:
  – List the different ISMP Self-Assessment Tools
  – Describe 2 reasons why it is important to use the ISMP Self-Assessment Tool at their institution
  – Conduct an ISMP Self-Assessment Tool for their Institution
  – List 2 ways to improve their processes at their institution to increase their ISMP Self-Assessment score
Pre-Question

• Which of the following is not a type of ISMP Self Assessment?
  A. High-Alert Medications
  B. Antithrombotic Therapy
  C. Oncology
  D. Pediatric
  E. All of the above are types of ISMP Self Assessments
Pre-Question

• Which of the following are reasons to conduct an ISMP Self Assessment?
  A. To avoid assessing your medication use processes
  B. Create an action plan for improvement
  C. Identify safety risks
  D. B & C
  E. All of the above
Pre-Question

• Which of the following are barriers to patient safety improvement?
  A. Resources
  B. Money
  C. Support from staff
  D. A & B
  E. All of the above
Pre-Question

• Which of the following is not a step to improve your self assessment scores?
  A. Meet with your interdisciplinary team
  B. Develop an action plan
  C. Reassess your score
  D. Correct low scored items
  E. Identify areas of improvement
ISMP Self Assessments: Background

- Available for various healthcare settings
- Can be used to assess your practices and processes related to medication use
- Designed to be completed by an interdisciplinary team, including both frontline staff and management

https://www.ismp.org/self-assessments
ISMP Self Assessment: Reasons to Complete

• Proactively assess your medication use processes
• Identify specific challenges and opportunities for improvement
• Gauge compliance with federal agencies such as TJC & CMS
• Identify safety risks
• Drive critical, honest discussion of current safety practices
• Create an action plan
• Track Progress

https://www.ismp.org/self-assessments
Types of ISMP Self Assessments

• Medication Safety Self Assessment for:
  – Hospitals
  – High-Alert Medications
  – Oncology
  – Community/Ambulatory Pharmacy
  – Antithrombotic Therapy

https://www.ismp.org/resources?field_resource_type_target_id%5B24%5D=24#resources--resources_list
ISMP Medication

Safety Self Assessment for Hospitals
What is the Self Assessment designed to do?

• Increase awareness of safe medication use practices

• Identify opportunities to decrease patient harm during medication management processes Create a baseline of your medication safety practices to evaluate risk and efforts over time

https://www.ismp.org/assessments/hospitals
Self Assessment Elements

• Self Assessment is divided into key elements
• Each Key element
  – defined by one or more core characteristics of a safe medication use system
• Each Core characteristic contains
  – individual self-assessment items to help you evaluate the medication safety strategies in your organization

Key Elements

1. Patient Information
2. Drug Information
3. Communication of Drug Orders and Other Drug Information
4. Drug Labeling, Packaging, and Nomenclature
5. Drug Standardization, Storage, and Distribution
6. Medication Device Acquisition, Use and Monitoring
7. Environmental Factors, Workflow, and Staffing Patterns
8. Staff Competency and Education
9. Patient Education
10. Quality Processes and Risk Management

Steps to Conduct the Self Assessment

1. Establish an interdisciplinary team
   - It is important to conduct the survey as an interdisciplinary team in order to accurately assess the medication use in your facility
   - The value and accuracy of the assessment decreases if the self assessment is filled out by a single discipline

Establishing an Interdisciplinary Team

- ISMP recommends that your team should consist of:
  - CEO or senior vice president
  - Chief medical officer
  - Nurse executive
  - Director of pharmacy
  - Chief information officer
  - Clinical information technology specialist
  - Medication safety officer/manager
  - Risk management and quality improvement professionals
  - At least two staff nurses from different specialty areas
  - At least two staff pharmacists (one clinical and one distribution)
  - At least one active staff physician
  - Others as applicable (ex. respiratory therapists, CRNAs)*

Steps to Conduct the Self Assessment

2. Read and review the entire self assessment before beginning the assessment process
   – Each team member should be given a copy of the full assessment and the FAQ about the assessment either in paper or electronic form

3. Verify your facilities demographic information

Steps to Conduct the Self Assessment

4. Convene the team
   – Make sure that each member brings their copy of the full self assessment with them to the meeting
   – Facilitator
   – Recorder

5. Discuss each core characteristic and evaluate the hospital’s current success with implementing the self-assessment items within that core
Tips to Complete the Self Assessment

• Provide your team with sufficient time to complete the self assessment

• The proper amount of time is needed to evaluate the medication practices in your facility accurately and honestly

• It should take approximately four team meetings of 1 to 2 hours each to complete the self assessment

Determine your Self Assessment Score

• Team should review carefully each assessment statement.

• Consensus to determine the “level of implementation” for your facility
  – select the appropriate score A – E according to the scoring key

Scoring Key

A. There has been **no activity** to implement this item.
B. This item has been **formally discussed and considered**, but it has not been implemented.
C. This item has been **partially implemented** in some or all areas of the organization.
D. This item is **fully implemented in some areas** of the organization.
E. This item is **fully implemented throughout** the organization.
## Scoring Example

### Core Characteristic #1
Essential patient information is obtained, readily available in useful form, and considered when prescribing, dispensing, and administering medications, and when monitoring the effects of medications.

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<tr>
<td>1</td>
<td><strong>Prescribers</strong> and <strong>nurses</strong> can easily and electronically access <em>inpatient</em> laboratory values while working in their respective clinical locations.</td>
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<td>2</td>
<td><strong>Pharmacists</strong> can easily and electronically access <em>inpatient</em> laboratory values while working in their respective clinical locations.</td>
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<td>3</td>
<td><strong>Prescribers</strong> and <strong>nurses</strong> can easily and electronically access <em>outpatient</em> laboratory values while working in their respective clinical locations.</td>
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<td>4</td>
<td><strong>Pharmacists</strong> can easily and electronically access <em>outpatient</em> laboratory values while working in their respective clinical locations.</td>
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<td>5</td>
<td>Recent inpatient and outpatient laboratory values are automatically displayed on <strong>COMPUTER ORDER ENTRY SYSTEM</strong> screens for medications that typically require dose adjustments based on pending laboratory results (e.g., if warfarin is ordered, the most recent INR is displayed).</td>
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Recording Score

• Document your score once consensus is reached
• Questions raised during process that may need clarification
• These questions may assist your team post results to identify improvement opportunities

Reporting Score

• The hospital ISMP Self Assessment submission is closed

• HOWEVER...... self-assessment score can still be useful to your facility!

• The self assessment will identify your hospitals weakness and assist with action plans to improve patient safety (and your score)

Common Questions

• What if a section does not apply to my practice site?
  – There are certain questions that have a not applicable answer option
  – If you are part of a behavioral health center that does not use IV therapy select E for all questions that pertain to IV administration

Common Questions

• If we are part of a health-system that consists of several hospitals that share the same committees (ex. P&T, Risk Management) can we complete just one assessment for the health system?
  – Each hospital should complete its own self assessment separately

ISMP Medication Safety Self Assessment for High-Alert Medications
What is the self assessment designed to do?

• Heighten awareness of high-alert medications
  • 11 categories
• Distinguish systems and practices related to the safe practices
• Identify opportunities to reduce patient harm of high-alert med management processes
• Create a baseline to evaluate risk and efforts over time

Targeted High Alert Medications

- General High-Alert Medications
- Neuromuscular Blocking Agents
- Concentrated Electrolytes Injection
- Magnesium Sulfate Injection
- Moderate Sedation in Adults and Children, Minimal Sedation in Children
- Insulin, Subcutaneous and Intravenous
- Lipid-Based Medications and Conventional Counterparts
- Methotrexate for Non-Oncologic Use
- Chemotherapy, Oral and Parenteral
- Anticoagulants
- Neuraxial Opioids and/or Local Anesthetics
- Opioids

Steps to Complete the Self Assessment

1. Establish a team
   - Your team should consist of the following:
     • Senior facility leader
     • Chief medical leader
     • Chief nurse leader
     • At least one (outpatient) or two (inpatient) nurses
     • At least one (outpatient) or two (inpatient) staff physicians

Steps to Complete the Self Assessment

• If applicable to the healthcare setting, the core team should also include:
  – Pharmacy director
  – At least two staff pharmacists
  – Clinical information technology specialist
  – Medication safety or patient safety officer/manager
  – Risk management and quality improvement professionals

Steps to Complete the Self Assessment

• Team should include frontline staff who use the medications
  – assessment should be based on what actually occurs, NOT what is in current policies
  – If not, ask the staff, then go back to team

• Medication use is a complex, interdisciplinary process
  – The value and accuracy of the self assessment is reduced if it is completed by a single discipline

Steps to Complete the Self Assessment

2. Read the directions and provide assessment items, definitions, and FAQs to team members
   – The team should be given sufficient time to complete self-assessment items
   – The team should be charged with the responsibility to evaluate the facilities status as accurately and honestly as possible

Steps to Complete the Self Assessment

3. Choose an option for completing the assessment
   – The team can either fill out a printed version of the assessment or fill it out online

4. Verify demographic information
Steps to Complete the Self Assessment

5. Convene the first team meeting to
   • complete the general demographics
   • general high-alert medications assessment,
   • select the high-alert medications for analysis
   – The team can focus on a few of the high alert medications or choose to fill out the entire assessment
   – Have a facilitator & recorder

Scoring of the Self Assessment

• For each item select a score ranging from A to E
• For items with two components separated with the word “OR,” and labeled a and b:
  – Choose the factor that is most relevant to your facility, and then score that element
• If an item is not applicable to your facility choose the not applicable option if available
  – If not applicable is not an answer choice score that item with an E

Scoring of the Self Assessment

Scoring Key
A. There has been no activity to implement this item.
B. This item has been formally discussed and considered, but it has not been implemented.
C. This item has been partially implemented for some or all patients, orders, drugs, or staff.
D. This item is fully implemented for some patients, orders, drugs, or staff.
E. This item is fully implemented for all patients, orders, drugs, or staff.
Example of High Alert Self Assessment

<table>
<thead>
<tr>
<th>Technology</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
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<tbody>
<tr>
<td><strong>1</strong></td>
<td><strong>COMPUTERIZED PRESCRIPTOR ORDER ENTRY</strong> systems are used to transmit nonemergent orders for high-alert medications in all settings in the facility (e.g., emergency departments, post-anesthesia care units, clinics, inpatient units).</td>
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<td><strong>2</strong></td>
<td><strong>MACHINE READABLE CODING</strong> is used to verify all base solutions and additives (including verification prior to attachment to automated compounders) when preparing <strong>COMPONDED STERILE PREPARATIONS</strong> of high-alert medications. <strong>Scoring guideline:</strong> Choose Not Applicable only if <strong>COMPONDED STERILE PREPARATIONS</strong> of high-alert medications are never prepared in your facility.</td>
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<td><strong>NOT APPLICABLE</strong></td>
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<td><strong>FAQ</strong></td>
<td><strong>For COMPONDED STERILE PREPARATIONS</strong> containing high-alert medications, the base solution and all additives (including the actual volume in syringes) are <strong>INDEPENDENTLY DOUBLE CHECKED</strong> by a practitioner (even if initially prepared by a pharmacist) prior to mixing when no technology-assisted validation is in place to confirm the correct products and volumes. (The <strong>SYRINGE PULLBACK METHOD</strong> is not used as part of the verification process.) <strong>Scoring guideline:</strong> Choose Not Applicable only if <strong>COMPONDED STERILE PREPARATIONS</strong> of high-alert medications are never prepared in your facility.</td>
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<td><strong>NOT APPLICABLE</strong></td>
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<td><strong>4</strong></td>
<td><strong>MACHINE READABLE CODING</strong> is used in the following locations and/or for the following tasks: (score each item individually)</td>
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<td><strong>a</strong></td>
<td>In the pharmacy for selection of high-alert medications prior to dispensing or leaving the pharmacy</td>
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<td><strong>b</strong></td>
<td>When filling ADCs with high-alert medications, scanning each medication or solution individually before stocking it <strong>Scoring guideline:</strong> Choose Not Applicable only if ADCs are never used in your facility.</td>
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<td><strong>NOT APPLICABLE</strong></td>
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<td><strong>c</strong></td>
<td>When removing high-alert medications from ADCs via override or from open/multiple-dose matrix drawers <strong>Scoring guideline:</strong> Choose Not Applicable only if ADCs are never used in your facility.</td>
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<td><strong>NOT APPLICABLE</strong></td>
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</table>

Steps to Complete Self Assessment

6. Conduct the assessment for each selected high-alert medication category

7. Submit your information to ISMP
   – To submit your information to ISMP go to: https://ismpassessments.org/high_alert/
   – Submit your self-assessment to ISMP by February 28, 2018

• Even if you cannot submit on-line ....Conduct the Self Assessment for your patients’ safety
Self Assessment is Completed...
Now What???
How to Interpret Score

• If your facility submits scores to ISMP you will receive:
  – A weighted score for your assessment
  – Comparative data from other facilities

• If you do not submit to ISMP, do not fret—
  – You can still improve your medication safety practices
How to Interpret Score

• If you have the weighted score
  – Examine what areas you had weak performance
  – Create chart comparing yourself to other facilities
  – Create a list of the weaknesses on what you can improve upon.
ISMP Medication Safety Self Assessment Results 2004

Key Elements of Medication Use

Percentage of maximum weighted score

- Patient Info
- Drug Info
- Communication
- Drug Labeling
- Drug Standardization
- Device
- Environment
- Staff Ed
- Patient Ed
- QI/RM
- Overall

- All Hospitals
- MTH
- Bed Size comparison
- Setting Size(Urban)
- Residents on Service
2018 ISMP Self-Assessment High Alert Med Results

- General High-Alert Medications: 80%
- Concentrated Electrolytes Injection: 93%
- Neuromuscular Blocking Agents: 97%
- Methotrexate for Non-Oncologic Use: 100%
- Magnesium Sulfate Injection: 94%
- Insulin, Subcutaneous and Intravenous: 96%
- Chemotherapy, Oral and Parenteral: 84%
- Anticoagulants: 89%
- Neuraxial Opioids and/or Local Anesthetics: 85%
- Opioids: 100%
- Lipid-Based Medications and Conventional Counterparts: 81%
<table>
<thead>
<tr>
<th>Category</th>
<th>#</th>
<th>Criteria</th>
<th>Max Score</th>
<th>MTH Score</th>
<th>$$$$</th>
<th>No Cost</th>
<th>Priority</th>
<th>Action</th>
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<td>Patient Information</td>
<td>4</td>
<td>A pharmacist or prescriber routinely adjust doses of medications that</td>
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<td>may be toxic in patients with renal or liver impairment.</td>
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<td>Patient Information</td>
<td>11</td>
<td>MACHINE-READABLE CODING (e.g., bar coding) that utilizes at least</td>
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<td>two identifiers of the patient (e.g., name and birth date, name and</td>
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<td>medical record number) is used to verify patient identity during drug</td>
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<td>Patient Information</td>
<td>14</td>
<td>The computer system used for medication order entry is directly</td>
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<td>interfaced with the laboratory system to automatically alert</td>
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<td>practitioners to the need for potential drug therapy changes.</td>
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<td>Patient Information</td>
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<td>Medication orders cannot be entered into the pharmacy computer</td>
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<td>system unless the patient’s weight has been entered (weight is a required field).</td>
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<td>Drug Information</td>
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<td>Current protocols, guidelines, dosing scales, and/or checklists for</td>
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<td>high-alert drugs (e.g., chemotherapy, anticoagulants, opiates, insulin,</td>
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<td>electrolyte replenishment with potassium, magnesium, sodium, and</td>
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<td>phosphate) are readily accessible to prescribers, pharmacists, and</td>
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<td>nurses, and used when high-alert drugs are prescribed, dispensed,</td>
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<td>Drug Information</td>
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<td>Pharmacists regularly (e.g., one 8-hour shift per 24 hours) work</td>
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<td>reviewing patient records and drug orders, attending interdisciplinary</td>
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<td>rounds, providing input into the selection and administration of drugs,</td>
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<td>and monitoring the effects of medications on patients.</td>
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</table>
How to Interpret Score

• If you do not have a weighted score
  – For each core characteristic determine an overall score (A – E)
  – Make a list of areas you scored high and low
    • High = D or E
    • Low = A, B, or C
  – Create a chart
  – Create a list of ways you can improve
Example Chart

A = 20%
B = 40%
C = 60%
D = 80%
E = 100%
Steps to Improve Score

1. Gather interdisciplinary medical team to review your facility’s ISMP Self-Assessment results

2. Identify self-assessment items to improve

3. Determine what processes are feasible to improve in the next year
   – Resources
   – Financial barriers
   – Support from hospital staff
Steps to Improve Score

4. Prioritize what is most important to increase patient safety
5. Create the Action Plan detailing what you plan to achieve
6. Implement the Action Plan
Example Improvements

Methotrexate

• “If folate has not been prescribed with methotrexate, pharmacists follow up with the prescriber to determine if initiation of this supplement is desired”
  – Non-Financial
  – Created rule in monitoring program to track when patients are prescribed methotrexate
Example Improvements

Drug Standardization & Distribution

• “Commercially prepared, premixed IV solutions are used whenever they are available on the market.”
  – Financial
  – Switched all products to premixed if possible
Example Improvements

Drug Standardization & Distribution

• “TURNAROUND TIMES for drug delivery from the pharmacy is consistent with the time frames established by the hospital for emergent (stat), urgent (now), and routine medications”.

  – Non-Financial
  – Educated staff

    • Identifying stat and now meds
    • Importance of delivering meds within the allotted time frame
Example Improvements

Drug Information

• “Pharmacists regularly (e.g., one 8-hour shift per 24 hours) work directly in inpatient care units performing clinical activities such as reviewing patient records and drug orders, attending interdisciplinary rounds, providing input into the selection and administration of drugs, and monitoring the effects of medications on patients.”
  – Financial
  – Hired additional pharmacists to work on each patient floor
Tracking Progress

- Rescore your assessment yearly at a minimum
- Add your new results to the chart from the previous year
Tracking Progress

ISMP Self Assessment Comparative MTH Results

Key Elements

Weighted Percentage

- Patient Info
- Drug Info
- Communication
- Drug Labeling
- Drug Standardization
- Device
- Environment
- Staff Ed
- Patient Ed
- Q/RM
- Overall

MTH -2004
MTH-2005
MTH-2011
Tracking Progress

2018 ISMP Self-Assessment High Alert Results-MTH

- General High Alert Medications
- Concentrated Electrolytes Injection
- Lipid-Based Medications and... 
- Neuromuscular Blocking Agents
- Moderate Sedation in Adults and... 
- Methotrexate for Non-Oncologic Use
- Magnesium Sulfate Injection
- Insulin, Subcutaneous and Intravenous
- Chemotherapy, Oral and Parenteral
- Anti-coagulation 
- Neuraxial Opioids and/or Local...
- Opioids

% Initial Score
- % Score- Post Changes
- ISMP Mean Score %

Graph shows the tracking progress of various high alert medications with percentage scores from 2018 ISMP Self-Assessment.
Tracking Progress

• Reassess your score
• Compare results
• Report results
  – Med Safety Team
  – P&T Committee
  – Patient Safety Team
  – Joint Commission
Post Questions

Which of the following is not a type of ISMP Self Assessment?

A. High-Alert Medications
B. Antithrombotic Therapy
C. Oncology
D. Pediatric
E. All of the above are types of ISMP Self Assessments
Post Questions

• Which of the following are reasons to conduct an ISMP Self Assessment?
  
  A. To avoid assessing your medication use processes
  B. Create an action plan for improvement
  C. Identify safety risks
  D. B & C
  E. All of the above
Post Questions

• Which of the following are barriers to patient safety improvement?
  A. Resources
  B. Money
  C. Support from staff
  D. A & B
  E. All of the above
Post Questions

• Which of the following is not a step to improve your self assessment scores?
  A. Meet with your interdisciplinary team
  B. Develop an action plan
  C. Reassess your score
  D. Correct low scored items
  E. Identify areas of improvement
Thank You!!

Questions?