To develop an innovative strategy and an analytic framework by leveraging medication incidents as a data source to assess safety culture through a qualitative approach.

Based on available patient safety studies, a safety culture maturity model was developed as a framework to guide patient safety improvements and to assess safety culture in healthcare settings.

**Objectives**

- To develop an innovative strategy and an analytic framework by leveraging medication incidents as a data source to assess safety culture through a qualitative approach.
- Based on available patient safety studies, a safety culture maturity model was developed as a framework to guide patient safety improvements and to assess safety culture in healthcare settings.

**Methodology**

- Two independent analysts conducted a qualitative analysis examining 200 medication incidents from the ISMP Canada incident reporting databases.
- Themes that were suggestive of a positive safety culture were identified and subsequently led to the development of an analytic framework.
- Medication Safety Culture Indicator Matrix (MedSCIM) was consolidated and validated by obtaining input from an interprofessional patient safety expert panel, consisting of a physician, a registered nurse, and a pharmacy technician.

**Medication Safety Culture Indicator Matrix (MedSCIM)**

MedSCIM is a 3x4 matrix (Table 1) that uses qualitative analysis to assess a medication incident on two dimensions:

1. **Core Event: Degree of Documentation**
   - Describes a medication incident based on its narrative integrity and completeness of documentation to allow sufficient interpretation and understanding of the event.
   - Assigns the medication incident with a numeric score of 1 to 3 (Table 2)
2. **Maturity of Culture to Medication Safety**
   - Analyzes the medication incident report based on the reporter’s view of patient safety concepts and principles, the perceived attitude towards patient safety, and understanding of system-based solutions.
   - Assigns the medication incident with a ranking system of A to D (Table 2)

Each medication incident is assigned a cumulative safety culture level based on the above two indices, which reflect the overall safety culture level (Table 3).

MedSCIM provides an alternative method of assessing medication safety culture by linking the overall quality of medication incident reports.

MedSCIM offers a novel approach to understand safety culture through the lens of medication incident reporting and analysis.

**TABLE 1. Maturity of Culture to Medication Safety**

<table>
<thead>
<tr>
<th>Core Event</th>
<th>Grade D: Blame and Shame</th>
<th>Grade C: Reactive</th>
<th>Grade B: Calculative</th>
<th>Grade A: Generative</th>
</tr>
</thead>
<tbody>
<tr>
<td>1D</td>
<td>18</td>
<td>28</td>
<td>2A</td>
<td></td>
</tr>
<tr>
<td>2D</td>
<td>3D</td>
<td>38</td>
<td>3A</td>
<td></td>
</tr>
<tr>
<td>3D</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**References**


**TABLE 2. Definition for MedSCIM Dimensions and Outcomes**

<table>
<thead>
<tr>
<th>Core Event</th>
<th>Outcome</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>1D</td>
<td>Level 1</td>
<td>Report fully complete</td>
</tr>
<tr>
<td>2D</td>
<td>Level 2</td>
<td>Report semi-complete</td>
</tr>
<tr>
<td>3D</td>
<td>Level 3</td>
<td>Report not complete</td>
</tr>
</tbody>
</table>

**TABLE 3. Examples of Medication Incidents Scored on MedSCIM**

**Case Example:** A patient’s daughter called the pharmacy and claimed the pharmacy shorted the patient 15 tablets of metformin when the prescription was filled. The staff member who filled the prescription had filled the incorrect strength. The pharmacist who verified the information was asked to review the prescription and the product. The pharmacist found the appropriate strength of the medication was filled and the incorrect strength was removed from the product.

**Case Example:** The wrong dose of intravenous heparin was administered to a patient. The dose was administered instead of the usual dose. The patient was admitted to the hospital with hypotension and respiratory distress. The pharmacy notified the nursing staff and the nurse administered the correct dose of the medication.

**Case Example:** The pharmacy recognized the ERAs were similar (2012 and 2013) and only differed by one digit. The pharmacist identified the error and notified the nurse to administer the correct dose of the medication.

**Disclosure**

Authors of this poster have the following to disclose concerning possible personal or financial relationships with commercial entities that may have a direct or indirect interest in the subject matter of this presentation:
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