Analysis of Medication Incidents Associated with Patient Harm in New Brunswick using the Medication Safety Culture Indicator Matrix

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Objectives
- Medication Safety Culture Indicator Matrix (MedSCIM) is a tool developed by the Institute for Safe Medication Practices Canada (ISMP Canada) to assess patient safety culture within a healthcare setting using the narrative information in medication incident reports as an indicator.
- 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.
- The objective of this study was to use MedSCIM to evaluate medication safety culture in New Brunswick by assessing the overall quality of medication incident reports associated with patient harm and to describe recommendations to advance safe medication use.

Methods
- We reviewed 69 incidents associated with patient harm anonymously reported by community pharmacy professionals in New Brunswick from July 2015 to December 2017.
- We conducted a MedSCIM assessment and performed descriptive statistics on the incidents.

Results
- Of the 69 incidents, majority (99%) were associated with mild harm.
- MedSCIM assessment (Figure 2 and Table 3): 19 (27.3% of 69) were scored as “1A” incidents (i.e. “generative” culture) and 15 (21.7% of 69) were “2C” incidents (i.e. “reactive” culture).
- Majority of the “pathological” incidents (i.e. “blame-and-shame” culture) often involved relief pharmacy professionals.
- High-alert medications (e.g. methadone and insulin) were frequently associated with harm incidents.

Conclusion
- Encourage independent double check of patient information and request patients to teach-back information to assure their understanding of administration instructions, especially when high-alert medications are involved.
- Embrace an environment of open communication, mutual trust and respect among the pharmacy team and other healthcare professionals. Involving patients in safety initiatives can improve patients’ understanding and awareness of their medication therapy. Learning and striving for a “generative” safety culture in a healthcare setting can ultimately lead to optimization of patient outcomes.
- To advance patient safety, more resources must be available to better understand and measure patient safety culture. MedSCIM offers an alternative approach to understand safety culture through the lens of medication incident reporting and analysis.

REFERENCES: Available upon request

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