Strengthening Med Safety in Long-Term Care

ISMP CANADA

Med Safety Signal

Risks in medication safety reported by LTC Homes in Ontario

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Quantitative Analysis of Medication Errors in Ontario Long-Term Care Homes

LEARN: Long-term care medication error reports shared with ISMP Canada

The Institute for Safe Medication Practices Canada (ISMP Canada) is funded by the Ontario Ministry of Long-Term Care to implement the *Strengthening Medication Safety in Long-Term Care* initiative. One of the goals of the initiative is to facilitate ongoing learning in the sector through analysis of medication error reports, also known as incident reports.

A total of 86 unique reports of medication errors involving residents of Ontario long-term care (LTC) homes were extracted from 2 ISMP Canada databases for the period between July 1, 2021, and May 30, 2023. The Individual Practitioner Reporting database includes reports by pharmacists, nurses and physicians. The Consumer Reporting database holds reports from residents and/or their families through www.mederror.ca.

Some level of harm (i.e., mild harm, severe harm, death) was reported to have occurred in 23% of the reports analyzed (Figure 1). Nine of these reports were submitted by residents and/or their families.

The most common **type of medication error** reported was omission of a medication, which accounted for 30% of the reports (Figure 2). Notably, hydromorphone, a high-alert medication, was the **medication most frequently mentioned**; it was involved in 17% of the reported errors (Table 1).

The **most common contributing factor** reported (37%), was lack of staff education (e.g., competency validation, information about new devices/drugs, orientation of new staff) (Table 2).

Level of Harm - Definitions

No Error: A reported concern that has not YET caused an error, but may in the future if not rectified

No Harm: An error occurred but caused no harm

Mild Harm: An error occurred that reached the resident, and caused mild or temporary harm

Severe Harm or Death: An error occurred that reached the resident and caused major or permanent harm, or contributed to the death of the resident.

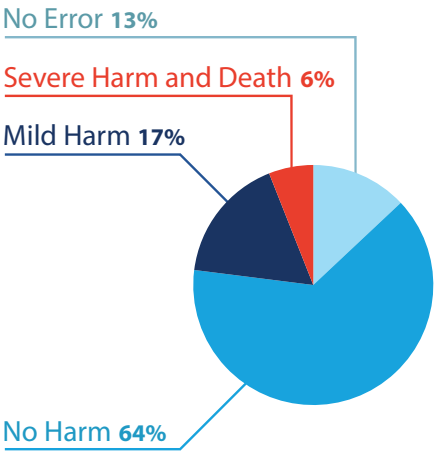

FIGURE 1. Reported medication errors according to level of harm (n = 86)

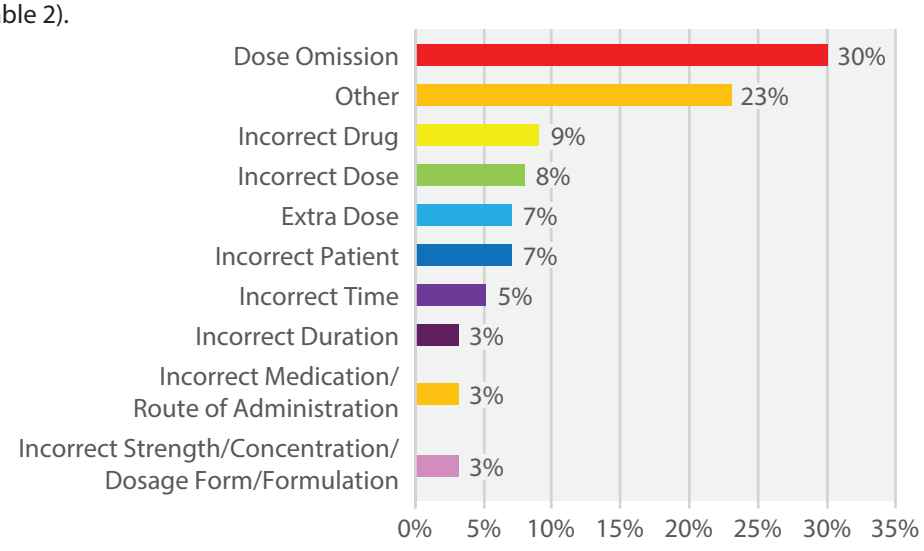

FIGURE 2. Types of medication errors reported (n = 86)

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Quantitative Analysis of Medication Errors in Ontario Long-Term Care Homes (cont'd)

TABLE 1. Top 10 medications involved in the errors (total number of known medications reported = 68, some reports had more than one medication reported, and some reports had no medications reported)

Medication name	Percentage of incidents
Hydromorphone	17%
Gabapentin	5%
Insulin	5%
Lorazepam	5%
Nitroglycerin	5%
Risperidone	5%
Amlodipine	5%
COVID-19 vaccine	3%
Metformin	3%
Pneumococcal vaccine	3%

TABLE 2. Top 10 contributing factors reported as playing a role in the medication errors (total number = 86; some reports had more than one contributing factor)

Contributing factors	Percentage of incidents
Lack of staff education	37%
Environmental, staffing, or working problem	23%
Drug storage or delivery problem	21%
Drug name, label, or packaging problem	19%
Lack of resident education	17%
Miscommunication of drug order	16%
Lack of quality control or independent check system	10%
Critical drug information missing	9%
Drug device delivery problem	5%
Critical patient information missing	5%

SHARE: What happens to the reports of medication errors that are submitted to ISMP Canada?

Medication errors reported to ISMP Canada are reviewed by a multidisciplinary team to identify the contributing factors and develop system considerations for improvement. Learning is shared through the Med Safety Signal and other bulletins, newsletters, webinars, and social media posts. Learning is also incorporated by ISMP Canada into the Medication Safety Self-Assessment for Long-Term Care and other tools/resources for the sector.

ACT: You and your LTC home can contribute to medication safety in multiple ways

- Ensure that medication errors and/or near misses are reported:
  - Into your home's medication incident reporting system for local learning, sharing and acting, and,
  - Into https://www.ismp-canada.org/err_ipr.htm (for health care providers) or www.mederror.ca (for residents and families) for broader learning, sharing and acting.
- Review Med Safety Signals to learn about errors and opportunities for improvement that can be implemented locally.
- Use tools and resources developed through the *Strengthening Medication Safety in Long-Term Care* initiative.
- Implement medication safety initiatives in your LTC home!

Report an Incident **Sign Up for Med Safety Signals**