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Palliative Care: A Multi-Incident Analysis

As defined by the World Health Organization, palliative care is an "approach that improves the quality of life of patients and their families facing the problem associated with life-threatening illness, through the prevention and relief of suffering by means of early identification and impeccable assessment and treatment of pain and other problems, physical, psychosocial and spiritual".[1] Many patients receiving palliative care have complex symptom control needs and are receiving multiple medications (including high-alert medications such as high-potency opioids). If medication errors do occur, the consequences may lead to worsening of symptoms or unnecessary suffering, and may even hasten death.[2,3] A multi-incident analysis was conducted to identify some of the complexities contributing to medication errors in this vulnerable population.

METHODOLOGY AND QUANTITATIVE FINDINGS

Medication incidents associated with palliative care were extracted from reports submitted to 3 ISMP Canada reporting databases* (Individual Practitioner Reporting, Consumer Reporting, and Community Pharmacy Incident Reporting) and the National System for Incident Reporting (NSIR)† from the time of inception of each database to March 4, 2019.

Key terms used to search the databases included "palliat", "end of life", "dnr", and "terminal". A total of 582 incidents were identified and screened for inclusion. Of these, 384 incidents were not clinically relevant to palliative care, which left 198 incidents for analysis according to the methodology outlined in the Canadian Incident Analysis Framework.[4]

Of the included incidents reported to ISMP Canada's databases, 19% resulted in death and an additional 22% resulted in harm. The 3 medications most commonly involved in these incidents were fentanyl, HYDROmorphone, and morphine.

QUALITATIVE ANALYSIS

The qualitative analysis identified 3 main themes, each with multiple subthemes (see Figure 1).

THEME: Hesitancy to Treat Opioid Toxicity

Opioid toxicity can cause respiratory depression, often leading to death, if interventions such as naloxone administration and/or cardiopulmonary resuscitation are not applied. When caring for a patient who has indicated that no life-saving or life-prolonging measures be used and who is experiencing opioid toxicity as a result of a

* It is recognized that it is not possible to infer or project the probability of incidents on the basis of voluntary reporting systems.
† The NSIR, provided by the Canadian Institute for Health Information, is a component of the Canadian Medication Incident Reporting and Prevention System (CMIRPS) program. More information about the NSIR is available from: http://www.cmirps-scdpim.ca/?p=12

medication error, the caregiver must decide whether to initiate aggressive treatment.[5] Hesitancy to treat opioid toxicity in palliative care settings may also relate to concerns that such treatment could lead to severe pain and withdrawal symptoms. This analysis identified several incidents in which there was hesitancy to administer naloxone because of a "do not resuscitate" (DNR) directive on file for the patient.

Incident Example

A patient receiving palliative care was found unresponsive and displaying signs of opioid toxicity after accidental administration of an incorrect opioid. Naloxone was not administered because of the DNR directive on the patient's chart. The patient later passed away.

To date, there has been very little investigation into the perspective of patients receiving palliative care and their desired treatment response to medication errors.[6] As such, when an opioid administration error occurs in the palliative care setting, clinicians may feel the need for discussion with the patient's family to determine the appropriate course of action, which may delay treatment.

THEME: Errors in Medication-Use Processes

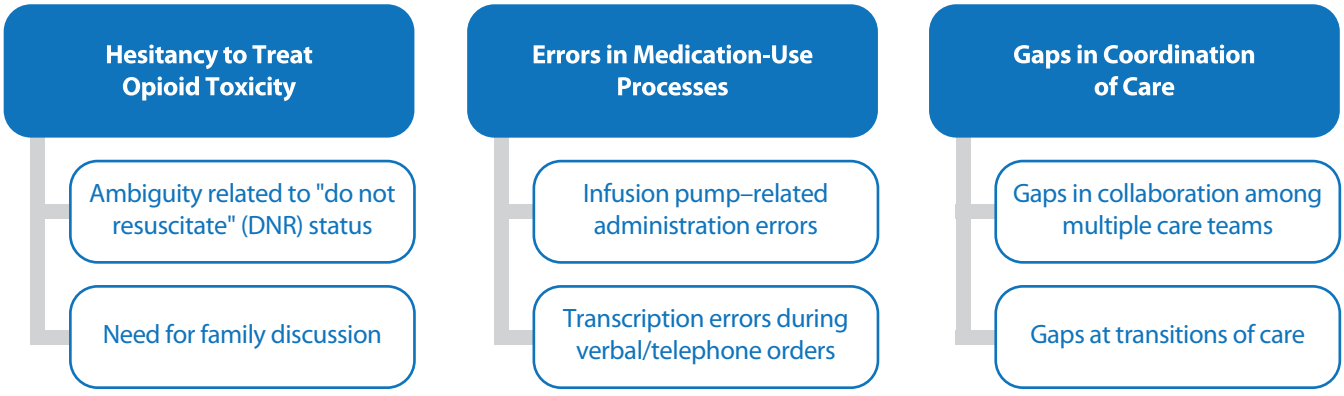
In palliative care settings, opioids are frequently administered via an infusion pump for continuous pain management. Factors contributing to pump-related medication administration errors included use of incorrect tubing, user-related data entry errors, and drug name confusion between HYDROmorphone and morphine products.

Incident Example

During a home visit, the prescriber ordered an increase in the dose of opioid being administered via continuous infusion by doubling the concentration. In the interim, before the higher concentration opioid could be delivered, the rate was doubled to give the patient the intended opioid dose. When the higher concentration opioid was then connected to the pump, the rate of infusion was not reprogrammed to reflect the intended opioid dose. As a result, the patient received double the prescribed opioid dose. The patient was admitted to hospital for treatment of the overdose.

One-third of the medication incidents in this analysis resulted from errors in the transcription of telephone orders or verbal orders for pain medications administered via an infusion pump. In palliative care settings, telephone orders are common because the prescribers typically practise in multiple locations and have limited on-site availability. Telephone orders and verbal orders are prone to error because drug names, doses, or instructions can be misinterpreted. Although safeguards have been incorporated into medication ordering processes in many healthcare settings, this analysis revealed that use of telephone and verbal orders continues to be problematic in the palliative care setting.

Figure 1. Main themes and subthemes.



Incident Example

When phoning in a medication order for an opioid to be administered in liquid form to a patient receiving palliative care, the physician expressed the dose unit as "mL" (millilitres). The person receiving the order misinterpreted the order and transcribed the dose as "mg" (milligrams). As a result, the patient received 5 times the intended dose of opioid and subsequently died.

THEME: Gaps in Coordination of Care

Palliative care is often delivered as a consultation service provided by specially trained clinicians who assess the patient and then provide treatment recommendations to the primary healthcare providers.[7] Ineffective integration of recommendations from the palliative care team can cause delays in timely symptom management.[8] For example, a common finding was that members of the patient's care team failed to implement or communicate suggested orders (e.g., to change or discontinue a medication) from the palliative care consultant.

Miscommunication, related to gaps in coordination of care among multiple patient care services and to lack of standardization of information conveyed in hand-offs, was a contributing factor to many errors.[8]

As patients transition between different care settings, such as hospital, hospice, or home, incomplete handover of key information during the transitions of care can lead to medication errors.

Incident Example

A patient was transferred from home care to hospice care. The hospice team administered pain medications regularly, as listed on the patient's home care medication profile. The patient experienced respiratory depression. Upon investigation, it was discovered that the patient had been taking the pain medications only rarely while at home; however, the actual frequency of administration had not been documented in the profile sent to the hospice.

CONCLUSION

Patients receiving palliative care have unique needs and concerns, but limited research has been done to characterize medication errors in this setting. This multi-incident analysis identified themes related to medication incidents in the palliative care setting: hesitancy to treat opioid toxicity, errors in medication-use processes, and gaps in coordination of care. The analysis findings raise awareness of opportunities to improve patient safety when providing palliative care.

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This segment of the bulletin describes a recent SafeMedicationUse.ca publication from ISMP Canada's Consumer Program.

SafeMedicationUse.ca

February and March 2019 - Newsletters:

Consumer "Good Catches"

Through SafeMedicationUse.ca, patients have reported medication incidents that describe how they (or their caregiver, family member, or friend) identified medication errors. In a two-part series, details about how these errors were caught are shared.

In part 1, "knowing what to expect" is highlighted as an important step in recognizing medication errors. This awareness includes knowing what medication has been prescribed (for example, the name and dose), what the medication looks like, and what effects to watch for.

Tips for Practitioners

- *Prescribers:* Before patients leave your office, ensure that they know the name and dose of each medication, why they are taking it, and the symptoms to watch for; this will help them know if the medication is working well or if it is causing adverse effects.
- *Pharmacists:* Before patients leave your pharmacy, confirm that they are aware of each medication name and dose, directions for use, what benefits it should have, and what adverse effects they need to be aware of. If possible, physically show the medication to the patient during this conversation.
- *All Healthcare Providers:* If patients seem unsure about what to expect regarding their medications, encourage them to talk about their concerns with you or another healthcare provider. Keeping the lines of communication open can help to encourage patients to advocate for themselves and their family members.

In part 2, "knowing where to look" is described as another important step in preventing medication mistakes and harm. Consumers can find medication information by reading prescription bottle labels, reviewing product packaging, and searching online for other key details.

Tips for Practitioners

- Always be open and willing to discuss patients' medications with them and listen to the information that they have already found for themselves.
- Review with your patients the different sources of information that they can use, including the label on the prescription vial, product packaging and information leaflets, and reliable websites.
- Direct your patients to high-quality drug information resources. Make your patients aware of information (e.g., laboratory values, units of measure, brand names) that may be different between US-based websites and Canadian resources.

For more information, read the full newsletters:

Part 1: https://safemedicationuse.ca/newsletter/goodcatches-part1.html

Part 2: https://safemedicationuse.ca/newsletter/goodcatches-part2.html

Health Canada's Policy Statement on the Naming of Biologic Drugs

Health Canada recently released a policy statement on the naming of biologic drugs, including biosimilars. A biosimilar is a biologic drug that has been demonstrated to be highly similar, with no clinically meaningful differences in safety and efficacy, to a biologic drug that has already been authorized for sale (known as the *reference biologic drug*). Biosimilars and their reference biologic drugs share the same non-proprietary (common) name of the active ingredient. However, unlike the situation for chemically produced generic medications, a biosimilar and its reference product are not identical, and authorization of a biosimilar by Health Canada is not a declaration of equivalence with its reference biologic drug. In Canada, the concept of interchangeability refers to the ability for a pharmacist to change a patient's prescription from one medication to another equivalent medication, without the intervention of the doctor who wrote the prescription. Provinces and territories, which have authority over interchangeability, have not declared biosimilars and their respective reference biologic drugs to be interchangeable.

The Policy Statement on the Naming of Biologic Drugs was developed after stakeholder consultation, conducted jointly by Health Canada and ISMP Canada. The policy statement specifies that **all "biologic drugs, including biosimilars, will be identified by their unique brand name and non-proprietary (common) name"**. Health Canada recommends that both the brand name and the non-proprietary name, as well as other product-specific identifiers (e.g., Drug Identification Number [DIN]), be used throughout the medication-use process and adverse drug reaction reporting to help distinguish these products and facilitate traceability.

Healthcare providers and other consultation respondents commented that using both the brand name and the non-proprietary (common) name would help to ensure clarity of prescribing, accuracy of dispensing and administration, and specificity in reporting of adverse drug events (including adverse drug reactions and medication incidents). The use of both names is already in place in some environments and is reflected in existing information systems and medication-use processes. In other settings, changes to practice and information systems will be needed to accommodate and encourage use of both names.

For more information, please visit:
https://www.canada.ca/en/health-canada/services/drugs-health-products/biologics-radiopharmaceuticals-genetic-therapies/biosimilar-biologic-notice-to-stakeholders-drugs-naming-of-biologics.html

Med Safety Exchange – Webinar Series

Wednesday, July 17, 2019

Join your colleagues across Canada for complimentary bi-monthly 50 minute webinars to share, learn and discuss incident reports, trends and emerging issues in medication safety!

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Canadian Medication Incident Reporting and Prevention System

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The Canadian Medication Incident Reporting and Prevention System (CMIRPS) is a collaborative pan-Canadian program of Health Canada, the Canadian Institute for Health Information (CIHI), the Institute for Safe Medication Practices Canada (ISMP Canada) and the Canadian Patient Safety Institute (CPSI). The goal of CMIRPS is to reduce and prevent harmful medication incidents in Canada.

HIROC

The Healthcare Insurance Reciprocal of Canada (HIROC) provides support for the bulletin and is a member owned expert provider of professional and general liability coverage and risk management support.

ISMP CANADA

The Institute for Safe Medication Practices Canada (ISMP Canada) is an independent national not-for-profit organization committed to the advancement of medication safety in all healthcare settings. ISMP Canada's mandate includes analyzing medication incidents, making recommendations for the prevention of harmful medication incidents, and facilitating quality improvement initiatives.

Report Medication Incidents

(Including near misses)

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ISMP Canada strives to ensure confidentiality and security of information received, and respects the wishes of the reporter as to the level of detail to be included in publications. Medication Safety bulletins contribute to Global Patient Safety Alerts.

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