RISK REFERENCE SHEET

Medication Adverse Events

Sector: Homecare, Mental Health, Rehabilitation

While the frequency of medication-related malpractice claims in the home, mental health and chronic rehabilitation settings is relatively low, outcomes associated with medication adverse events can be significant, resulting in short or long-term harm or death. Due to the potential for patient/client harm, high alert medications require in particular, heightened vigilance during ordering, preparation, administration and patient/client monitoring.

COMMON CLAIM THEMES

- Administration of the wrong medication or dose frequently involving high-alert medications (e.g. oral hypoglycemic agents, insulin, opioid analgesics, warfarin, digoxin).
- Frail, medically complex patients/clients.
- Incorrect programing of smart pumps (e.g. under dosing or overdosing).
- Healthcare provider (HCP) preparing or administering medications to unfamiliar patients/clients or with unfamiliar medication.
- HCP administering the wrong medication or administering the medication to the wrong patient/client.
- Work environments non-conducive to "independent double checks" e.g. home health setting.
- Communication breakdown between HCPs (e.g. physician to nurse) about medication orders.
- Mistakes in calculating non-standard medication doses.
- Lack of documentation of patient/client assessments and vital signs before and after administration.

CASE STUDY 1

A continuous dose of opioid analgesic for pain control via a "smart" infusion pump was to be administered to a palliative homecare patient with an intermittent (and higher) breakthrough dose for additional pain. The new order was misread by the HCP who increased the continuous dose by mistake. The patient was overmedicated for one week until the physician caught the error at the next visit. The patient died one day later. While the death was thought to be due to pre-existing co-morbidities, experts reinforced the importance of good communication, vigilant order interpretation and ongoing monitoring of the patient orders and care plan.

CASE STUDY 2

An elderly chronic rehabilitation patient with pneumonia taking warfarin for an irregular heart rate, was ordered a stat dose of vitamin K for an increased international normalized ratio (INR). The HCP, who received the verbal order from the practitioner, confused the Vitamin K with potassium chloride. The potassium chloride was ordered from the pharmacy by the HCP. A co-worker administered it without checking or questioning the order. While the patient seemingly suffered no ill effects from the potassium chloride, he subsequently succumbed to pneumonia. Expert review of this case highlighted the risks associated with verbal orders and reinforced the importance of questioning and challenging medication orders.

Canadian Case Examples

HIROC

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MITIGATION STRATEGIES

Note: The Mitigation Strategies are general risk management strategies, not a mandatory checklist.

Reliable Care Processes

- ☐ Maintain an environment which supports and expects the questioning and challenging of medication orders, including orders for drugs/doses that appear unsafe.
- ☐ Ensure verification of two unique patient/client identifiers before administering medication.
- ☐ Implement strategies to ensure HCPs caring for individuals with multiple chronic conditions possess the necessary knowledge, skill and expertise for medication management.
- ☐ Implement strategies to reduce distractions during medication preparation and administration. Consider environmental factors that can promote medication errors such as:
  - Inadequate lighting;
  - Cluttered work environments;
  - Increased patient/client acuity;
  - Distractions during drug preparation or administration;
  - Caregiver fatigue.
- ☐ Adopt a carefully defined, limited list of medications requiring independent double checks. (e.g. high-alert medications).
- ☐ Adopt a standardized “Do Not Use” list for abbreviations, symbols and dosage expressions.
- ☐ Limit verbal (in-person) orders to emergency or urgent situations. Ensure verbal orders are immediately documented and “read back” to the prescriber.
- ☐ Ensure order sets identify required laboratory monitoring and timing and include intervention guidance (e.g. contact prescriber if…).
- ☐ Use standard concentrations of medications specific to the patient/client populations.
- ☐ Retain medication syringes/bags/containers/vials /pumps involved in adverse medication incidents

Patient/Client & Family-Centred Care

- ☐ Upon discharge of the patient/client to the community, ensure effective communication regarding medications among the hospital, the patient/client and family members and the community HCP’s.

Documentation

- ☐ Ensure all containers/syringes containing medication are labeled; adopt best practices for effective labeling.

Monitoring and Measurement

- ☐ Implement formal strategies to help ensure consistent adherence to facility/agency medication policies/practices (e.g. periodic chart/e-record audits, analysis of reported adverse medication incidents (with an emphasis on the involvement of high-alert medications (e.g. hypoglycemic episodes from diabetes agents or bleeding from anticoagulants), learning from medico-legal matters.
- ☐ Monitor automated dispensing machine practitioner overrides (e.g. frequency, type and appropriateness if overrides).