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CMIRPS SCDPIM
Canadian Medication Incident Reporting and Prevention System
Système canadien de déclaration et de prévention des incidents médicamenteux

MedSafety CheckPoint FALL 2026

Preventing and Managing Hyperkalemia

Hyperkalemia, or high serum potassium (K^+), is an electrolyte disturbance that can lead to arrythmias and cardiac arrest. A multi-incident analysis identified system opportunities to support improved safety in the prevention and management of hyperkalemia.

What Happened?

Incident example: A patient was found unresponsive after being given 500 units (instead of 5 units) of IV regular insulin for hyperkalemia treatment.

What Can You Do?

- **Seek the causes.** Consider sources of K^+, such as diet and K^+-containing IV fluids, and causes of reduced K^+ excretion, such as renal disease and K^+-sparing medications.
- **Measure the numbers.** Monitor serum K^+ regularly. When interpreting levels, consider the possibility of pseudohyperkalemia.
- **Perform the checks.** For IV insulin, conduct an independent double check before administration, flush the line after, and monitor blood glucose.

REDUCE ORGANIZATIONAL RISK

- When ordering, verifying, and administering medications from a hyperkalemia order set, the most recent K^+ levels (with the date and time) are displayed in electronic systems.
- Lab reports clearly highlight hemolyzed samples and describe the implications.
- An evidence-based, standardized order set for the management of hyperkalemia is readily available and includes orders for:
  - Stopping K^+ supplements and K^+-containing IV fluids
  - Holding medications that elevate K^+ levels
  - Administering hyperkalemia treatment in the correct sequence
  - Monitoring K^+, glucose, other electrolytes, and electrocardiogram
  - Considering the possibility of pseudohyperkalemia
- Medications and equipment (e.g., insulin syringes with luer locks) required for STAT administration of hyperkalemia treatment are readily available in care areas.

Turning NSIR Insights into Safer Care

ismpcanada.ca/impact/nsir

Read the full analysis and recommendations at: ismpcanada.ca/bulletin/hyperkalemia

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