

Look-Alike Medications in the Perioperative Setting: Scoping Review of Medication Incidents and Risk Reduction Interventions

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BACKGROUND

Look-alike (LA) medications, where ampoules or vials of intravenous medications look similar, may increase the risk of medication errors in the perioperative setting.

METHODS

Databases: CINAHL Complete, Embase, OVID Emcare, Pubmed, Scopus, Informit, Cochrane and Prospero Prospero.

RESULTS

Total of 2,567 records identified to July 2022; only 18 publications met the inclusion criteria.



Figure 1. Labelling and packaging similarities of cisatracurium and midazolam ampoules.

DISCUSSION

Table 1. Summary of the risk reduction strategies and interventions for LA medications in the perioperative setting.

Risk Reduction Strategies	Interventions
Regulation	Manufacturer labelling and packaging e.g., colour coding
Procurement	Risk assessment Communication and consultation Prefilled syringes
Standardisation	Standardising and Organising Medication Drawers Guidelines Adherence to Procedures Incident analysis
Labelling	Barcode medications for scanning Improved labelling via technology Label design Inhouse pharmacy labelling
Environmental	Limit medications in the workspace
Team	Communication Education Role definition Simulation exercises
Storage	Avoid LA Combinations Computerised Anaesthesia carts Optimise use of the Automated Dispensing Cabinets (ADC's) Label shelving Visually differentiate medications Segregate bulk stock
Administration	Double Checking Double Check with a read aloud Barcode scanning at the point of care Smart pumps



CONCLUSION

- Risk reduction strategies and interventions have emerged that are not dependent on expensive, technology-based solutions
- There are opportunities for healthcare facilities to use multiple LA interventions to guide quality improvement. However further research with robust methodologies are required.

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