Small but smart improvements to medication labels to enhance medication safety
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Keywords:
medication labels
improvements

Introduction
Provision of drug information to healthcare professionals is pivotal to the enhance medication safety in the hospital. Information on reconstitution, diluents, rate of infusion and use before dates are essential to ensure safe and effective use of drug but are not available on the corporate dispensing labels. Look alike and sound alike drug names, similar packaging and unsafe storage practices may contribute to incorrect drug selection in pharmacy or wards hence leading to medication incidents.

Objectives
- To prevent inadvertent administration of drugs via iv bolus for drugs requiring iv infusion
- To enhance efficiency and accuracy in preparing the use before labels for reconstituted antibiotics syrups
- To incorporate some safety enhancements in the bin-shelf drug labels in pharmacy and wards

Methodology
Auxiliary label - Dilution labels drugs requiring IV infusion
IV infusion instead of IV bolus is recommended for administration of some antibiotics such as Vancomycin, Clindamycin and Amikacin. Auxiliary labels specifying reconstitution method, dilution method and infusion rate are affixed to dispensing bags during dispensing to serves as a reminder to nurses during administration.
Auxiliary label - Expiry date labels for reconstituted antibiotics
Use before dates of reconstituted antibiotics were calculated manually in the past. Records of antibiotics reconstitution are also written manually in a dedicated logbook. To ensure accuracy of the use before dates for the reconstituted antibiotics and to enhance record keeping, a simple software using MS Excel has been developed automatically calculates the use date, indicates if refrigeration is required and prepare a record for traceability.

Bin-shelf labels
Databases have been developed to print the bin-shelf drug labels for pharmacy and
wards. Drugs with different strengths are highlighted with different colours to provide a
visual cue to staff to check drug strength. Tallman lettering is used to highlight the
dissimilarity in look alike drug names. Special warnings for certain classes of
medications are incorporated to enhance staff alertness.

**Result**
The auxiliary labels are well received by staff as indicated in an evaluation survey. The
redesign of drug labels with some safety enhancements is a small but significant step
towards medication safety.