

Barcode Medication Administration – Process Mapping and Assessing in a Military Hospital

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ABSTRACT:

Objective: To assess and map the barcode assisted medication administration (BCMA) process in medical-surgical units at a military hospital and develop a dashboard to ease viewing metrics and variables associated with barcode scanning.

Materials and Methods: A retrospective study in a tertiary care military medical center data analysis covered a six-month period (September 2022 - February 2023) across four inpatient medical-surgical units. The data was de-identified of patient or staff details, but included variables surrounding instances where medication barcode scanning was not used.

Results: The analysis revealed nearly 10% of non-compliant meds have no bypass reason documented. Where documented, medication bypass was more prevalent than patient ID bypass. 54.78% of the medication bypass reasons were due to damaged or unable to scan barcodes, followed by 10.87% due to non-barcoded medication. Damaged or unable to scan barcodes accounted for 38.40% (n=1,038) of patient ID override reasons.

Discussion: Most bypass reasons were documented as damaged or unreadable barcodes, indicating a need for further investigation. The volume of non-barcoded medications also warrants standardized medication labeling consideration. Furthermore, the study provides specific information about the medications that generated the greatest number of override alerts.

Conclusions: The majority of bypass reasons were associated with medication bypasses and were heavily linked to barcode-related factors. Documentation via a pathway that doesn't require BCMA use or override documentation still remains. Ongoing dashboard management and monitoring along with deeper investigation in key areas will offer greater insight into opportunities to improve overall BCMA compliance and process adoption.