Bar Coded Medication Administration Overrides: An Alert to Practice and Safety Issues

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Background:
Automated dispensing cabinets and barcode medication administration (BCMA) are associated with decreases in medication errors. When medication errors do occur, workarounds are often an important factor. Drivers for these workarounds through observation include not scanning, overriding patients with no wristband, incorrect medication, and ignoring alerts [1]. Our evaluation at Tufts Medical Center (TMC) revealed similar findings. Tufts BCMA system uses "MAK" a Soarian application using barcode scanners. The nursing informatics (NI) team was alerted when issues with documentation of narcotics were reported to Nursing Directors. Medication administration reports managed in the pharmacy" MAK" system showed a 1% override rate, considered acceptable by pharmacy safety at TMC. Nurses reported issues with reliability using the BCMA system. Reports of missed documentation, dropped sessions and scanners "not scanning" activated a review of data on medication administration. Workarounds reflect issues with functionality and reliability of the system.

Methods:
The NI team, in collaboration with pharmacy, clinical nursing directors and the Soarian analysts reviewed MAK and Quantros safety reports to understand specific issues with BCMA scanning and to better understand overrides. Communicating the data to unit leaders using weekly data reports provided opportunities for discussions on process improvement and risk assessment. Addressing the type of overrides began with transparency of information to leaders and staff. Pharmacy informatics collaborated to validate and clean the data to support focused improvement. Individual plans were developed through observation of daily work as well as unit-specific barriers to safe medication administration. Utilization of safety huddles, orientation-focused competencies, informatics "did you know" monthly alerts, as well as individual unit elbow-to-elbow support was implemented. Ongoing reporting of data was vital to keep the issue in focus.

Results:
Reporting to individual units with user-specific data had a twofold outcome. The identification of small numbers of users who were overriding patient identification allowed individual counseling by clinical instructors with immediate improvement. Identifying the users revealed that many were novice and less experienced nurses and focusing education on orientation and novice nurse programs proved impactful.

Discussion:
Never take your eye off data was an important take away. NI's must continue to observe and respond to concerns while using the reporting tools and data available. Encouraging nurses to utilize safety reporting when they have IT issues will help NI's to recognize problems with user interfaces and allow the ongoing support of clinical practice. Rounding with bedside nurses is an important aspect for nursing informatics which allows open communication and feedback.

References

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