Safety First: A Proposal to Reduce Medication Errors in Acute Care Settings

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Health care organizations have progressively looked to technology to increase patient safety. Barcode technology is a favorable approach in the endeavor to reduce medication errors in acute care settings. Barcode technology is used in hospital applications, but only recently used to address patient safety. The use of barcode technology at the bedside has shown remarkable strides in reducing medication administration errors. Barcodes assist in the verification of the six rights of medication administration by assuring, right medication, right patient, right route, right dose, right time, and documentation of administration. Use of technology can allow medical staff to monitor, access important information regarding medication use, and disburse medication to patients in an improved and efficient manner.

**Problem Focus**

A 2002 study by the School of Pharmacy at Texas Tech University Health Sciences conducted research to find direct relationships among clinical pharmacy services, nursing staff, nursing administration, and medication errors (Bond, Raehl & Franke, 2002). For this study, 429,827 medication errors involving 1081 hospitals determined the findings (Bond, Raehl & Franke, 2002). The data gathered indicated that medication errors occurred in 5.22% of the patients admitted to hospitals each year, or 90,895 individual patients harmed annually. Correlated with hospital admission volume, the data indicated that a medication error occurred once per 19 admissions (Bond, Raehl & Franke, 2002). These statistics are not without effect to society. The United States Department of Health and Human Services, in its 2010 Annual National Practitioner Databank Report, indicates 12,000 malpractice-based payments were made in 2010, equating to more than $81 million in medication error malpractice payments in a year (United States Department of Health and Human Services, 2010). Extrapolating from the rate of incidence indicated by the Texas Tech Study, if a hospital maintains an average of 100 occupied beds on any given day, five of those patients will experience a potentially harmful medication error, putting the hospital at risk for financial damages daily. This amounts to a significant opportunity for nursing research utilization to play a role in medication error reduction. An innovative measure to assist in the process is using a bar coding medication administration system and implementing a no punishment policy for caregivers who report medication error incidence.

**Solution**

Studies have shown that bar coding can be very beneficial to a health care organization with safety initiatives to reduce medication errors (Work, 2005). Strategically, the plan can unfold by creating a teaching module that emphasizes the importance of reducing medication errors, explaining the no penalty program, and how to use the bar coding system. Doing a pilot study of the new bar code system in a few units is a good beginning to improving patient safety through the reduction of medication administration errors. The proposed plan of using a bar code system and a no injury policy includes education, policy development, establishment of work rules and medication delivery protocols, and establishment of tools to measure performance against the new protocols (Work, 2005).

**Conclusion**

The health care industry is at a cross roads. Public perception is level of care is incrementally decreasing whereas costs are increasing. The public has choices concerning, which hospital he or she choose when he or she needs treatment. A statistically relevant and marked reduction in errors related to medication delivery is one way to differentiate hospitals in the level of care delivered.. The goal of this proposal using a bar code system for medication delivery and not penalizing clinicians for speaking up when an error is made is to develop a strategic plan of action for reducing medication errors. The scope of the project will evaluate where health care organizations have come from, what can happen if historical trend continues, and finally how close we can come to achieving our target. How each individual hospital clinician reacts to this information will determine whether the hospital succeeds or fails in its quest to achieve the objective; individual attention, comprehension, and action are required.

References

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