KPRC Meeting – Presentation abstract

Title

Evaluation of medication override practices at a large, academic medical center

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Abstract

1. **Purpose**: To develop a standardized process for monitoring medication override practices at The University of Kansas Health System. “Medication override” is defined as the removal of a medication from an automated dispensing system (ADS) prior to pharmacist verification. The purpose of this project was to evaluate medication override practices to understand deficiencies in current processes and implement changes to increase compliance of linked override medication administrations.

2. **Methods**: The pharmacy department partnered with nurse educators to conduct a pilot study in the Surgical Intensive Care Unit (SICU). The Plan, Do, Check, Act (PDCA) technique was used to guide interventions and measure change. Interventions included educational presentations and distribution of a tip sheet for linking override medication administrations. ADS override reports were evaluated daily for one month following intervention to assess appropriateness and compliance rate with linking medications removed on override to a provider order.

3. **Results**: The results of this study showed a statistically significant decrease in the number of medications removed on override prior to pharmacist verification [285 vs. 129, $p<0.0001$]. The post-intervention compliance rate of linked override medication administrations significantly increased from 43.4% to 76.7% [percent change, 58.9%], resulting in a statistically significant decrease in the number of unlinked override medication administrations [165 vs. 30, $p<0.0001$]. Additional findings included inconsistent MAR documentation which led to the MAR action “cabinet pull” being retired as it was determined to be obsolete, and the MAR action “canceled” is under review due to inappropriate use.

4. **Conclusion**: Education and hands-on coaching significantly increased the compliance rate of linked override medication administrations in the SICU during the month of March 2021. A decrease in the total number of medications administered prior to pharmacist verification decreases the risk of a medication error reaching the patient. While education tends to be lower on the hierarchy of effectiveness to improve patient safety, this pilot study showed significant improvements in medication override practices which we anticipate will reduce medication errors, prevent potential patient harm and improve overall patient outcomes within the health system. Additional functionality was discovered within Epic to include an “override pulls” tab on the MAR. This tab automatically populates any unlinked override medications administrations and can be easily reconciled. This optimization request was submitted through the health system IT department and will help guide future training and evaluations of practice. The next steps will be to implement this process of education and hands-on coaching across the health system.