

CSHP PPC 2015: Abstract

Optimization of Workflow and Medication Safety in Unit Dose Dispensing

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Background

A need was identified to increase patient safety and efficiency in the inpatient unit dose area of a pharmacy within a major, acute care, tertiary, academic hospital. Changes were desired before the transition of pharmacy services to 24/7 and computerized provider order entry implementation.

Description

Redesigning the workflow and workspace was thought to reduce interruptions, which in turn would decrease medication filling errors and increase patient safety. Reducing time to fill medication carts would increase efficiency and effectiveness.

Action

A thorough analysis (using a LEAN quality improvement approach) of the processes, workspace and workflow was completed. The volume of activity was analyzed to determine optimal staffing levels. The schedule was revised to align shifts with peak activity. Reducing non-essential, non-value added work was desired. An event was held to sort, set in order, shine, standardize and sustain (“5S”) the proposed future state. “Plan-Do-Check-Act” cycles were completed during implementation to refine processes.

Evaluation

Direct observation of work, timing of medication cart filling, counts of medication returns, counts of adverse event reports and discussions with staff were done to assess current and future state. One month after implementation, the number of interruptions during medication cart filling had decreased by 43%. There was positive staff feedback on the space redesign. Fewer adverse errors were reported and a decreased amount of time was noted in filling the medication carts. Independent double checking of medication carts increased by 10% (this value has continued to improve since implementation). Ninety-five percent of medication carts were filled within the new target time. There was no change in the number of steps required to fill each medication cart.

Implications

A quality improvement approach helped to identify opportunities for increased efficiency and safety within the pharmacy environment. Positive results were obtained after thorough analysis of workflow and workspace redesign.