
Abstract:

PURPOSE: Development and implementation of an interprofessional consensus-driven process for review and optimization of smart-pump drug libraries and dosing limits are described.

SUMMARY: The Indianapolis Coalition for Patient Safety (ICPS), which represents 6 Indianapolis-area health systems, identified an opportunity to reduce clinically insignificant alerts that smart infusion pumps present to end users. Through a consensus-driven process, ICPS aimed to identify best practices to implement at individual hospitals in order to establish specific action items for smart-pump drug library optimization. A work group of pharmacists, nurses, and industrial engineers met to evaluate variability within and lack of scrutiny of smart-pump drug libraries. The work group used Lean Six Sigma methodologies to generate a list of key needs and barriers to be addressed in process standardization. The group reviewed targets for smart-pump drug library optimization, including dosing limits, types of alerts reviewed, policies, and safety best practices. The work group also analyzed existing processes at each site to develop a final consensus statement outlining a model process for reviewing alerts and managing smart-pump data. Analysis of the total number of alerts per device across ICPS-affiliated health systems over a 4-year period indicated a 50% decrease (from 7.2 to 3.6 alerts per device per month) after implementation of the model by ICPS member organizations.

CONCLUSION: Through implementation of a standardized, consensus-driven process for smart-pump drug library optimization, ICPS member health systems reduced clinically insignificant smart-pump alerts.

Reference: