Infusion Pump Informatics (IPI)

INITIATIVE

Working with Purdue’s Rosen Center for Advanced Computing, RCHE developed the Infusion Pump Informatics (IPI) System. IPI member hospitals upload their infusion pump alert data to the system regularly. The system is web-based and highly interactive. Drawing on feedback from pharmacists, medication safety officers and nurses, the RCHE team developed charts and graphs that allow participants to view data according to variables like highest alerts, unit, time, etc. The Good Catch table shows errors caught by the safety features of the pump, resulting in clinicians reprogramming the dose. Hospitals can also compare their analysis results to those of other member hospitals in the group. This data sharing component provides collaboration opportunities unique to the IPI system.

IPI is housed on the CatalyzeCare hub, which provides additional collaboration tools that build upon the data sharing capabilities of the system. Forums are used to discuss common questions and issues, and resource libraries allow member hospitals to share medication safety documents, including drug limit libraries. These allow the system to support improved patient safety through both data analysis and discussion.

IMPACT

The improved analysis and discussion capabilities provided by the IPI system have improved medication safety initiatives at member hospitals. Medication safety officers and pharmacists using the system are able to conduct medication reconciliation more often — up to four times each year as opposed to once every two years without the system. Features such as the Good Catch table help pharmacists quantify the importance of safety equipment, and underline data-driven education sessions with front-line providers.

Analyzing alert data has also brought to light opportunities for workflow changes and staff education needs. For example, by examining the alerts, one hospital learned that certain maintenance fluids needed to be split into two infusions rather than one, saving time and fluids. The hospital comparisons also provide support for hospitals with smaller pharmacy staffs, and are enabling the group to explore common alert issues.

Throughout the community, participants report that they are networking with colleagues and exploring issues in their field more often and more easily with the IPI community than before.

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