

Baxter Healthcare Corporation's Patient Care System **Case Studies**

Helping Hospitals Improve Patient Safety, Workflow Process and Operational Efficiencies

Since the call to action generated by the Institute of Medicine's 2000 report, "To Err is Human: Building a Safer Health System," health care manufacturers have expanded their focus on developing computer-based technologies to help clinicians reduce the risk of medical errors, specifically errors in the medication management process. Baxter Healthcare Corporation's Patient Care System is a computerized, wireless patient information and medication management system that provides an integrated approach for the management of medication delivery and clinical workflow efficiency. By linking Baxter's broad product portfolio including medications, drug delivery systems and patient-appropriate data, with the caregivers own information systems, Baxter's Patient Care System helps caregivers access patient information at the point of care, safely and efficiently.

The integrated system includes pharmacy and point-of-care solutions, as well as the option for connectivity to Baxter's COLLEAGUE infusion pumps, helping the clinician verify the "five rights" of patient safety -- the right patient receives the right medication in the right dose through the right route of administration at the right time.

Real World Results

Northwestern Regional Medical Center (NMC), St. Albans, VT, has found that after administering more than 200,000 doses over a 12-month period of implementation using Baxter's Patient Care System, the hospital has reduced errors of omission (patients not receiving the doses or medications that they were supposed to receive at a specific time), signifying substantial improvements to medication safety.

NMC uses Baxter's Patient Care System wireless bar code scanning technology and personal digital assistants to enable its nurses to scan patients' identification bracelets and medication to ensure a match, and provides decision support tools, including medication class verification and missed dose monitoring. The system electronically transfers information with the hospital's pharmacy to facilitate the charting of administration records and to provide data for the verification of medication and dosage at the point of care.

Northwestern Medical Center CEO Peter Hofstetter explains, “Until now, the value of computerized medication management systems was largely anecdotal – we suspected a system could reduce medication errors, but hadn’t validated the impact of an automated system. After using the system throughout our facility for more than a year, we now have tangible data that identifies where the errors are occurring. We can now use this information to make adjustments to our medication delivery process and correct the problems at their root cause. Results to date confirm our belief that this is the right technology for improving the process of medication management at Northwestern Medical Center.”

Measuring the Benefits of a Medication Management System

Missouri Rehabilitation Center (MRC), a long-term, acute care hospital in Mt. Vernon, MO, was chosen by the American Society of Health-Systems Pharmacists (ASHP) Foundation as the only site in North America to study, document, and publish the benefits of implementing a medication management system. The study is documenting medication errors before and after the implementation of Baxter's Patient Care System.

Specifically, ASHP study objectives are to develop, implement and test the effectiveness of:

- ideal design principles for a multidisciplinary coordinated, technology-driven medication-use system,
- essential performance standards for health professionals involved in the medication-use system,
- and the system on patient safety.

To date, MRC has completed its collection of pre-installation data on their previously existing medication management system. Using the data, MRC designed a change management model and has successfully implemented Baxter's Patient Care System to help them ensure they can always safely deliver medication to their patients. The study will continue until December 2005.

Although it’s too early to publish data, Missouri Rehabilitation Center can see one very positive change resulting from implementing Baxter's Patient Care System. Hospital medical director, Dr. Ron Williams, is pleased with the change, and explains, "Patient safety is a top priority and is on every staff member's mind, whether they are directly involved in patient care or not. It has brought everyone together and made this performance improvement project a hospital-wide focus."

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