

Case Study



Bloomington Hospital

Medication dispensing cabinets play key role in putting Bloomington at leading edge of patient safety

At a Glance

Bloomington Hospital
Bloomington, IN

Bloomington Hospital has been innovative in providing quality health care to south central Indiana communities for more than a century. Bloomington Hospital is a not-for-profit organization and has a patient base of 413,000 in 10 counties.

Solution Spotlight

– AcuDose-Rx®

Other Automation Solutions

- NarcStation™
- Horizon Meds Manager™
- MedCarousel®

Results

- Dispense over one million doses a year
- Medication selection errors reduced from 3700/year to 600/year with AcuDose-Rx
- Missing doses reduced from 150/day to less than 25/day with AcuDose-Rx
- After implementing automation, turnaround time from order receipt to medication availability was reduced from 90 minutes to seven minutes
- Improved nursing satisfaction
- Stronger pharmacy-nursing relationship

Overview

As a leading hospital in Indiana, Bloomington Hospital enhances health by advancing the art and science of medicine through the use of new technologies, procedures and care.

Prior to having any automation technology, Bloomington developed a comprehensive medication safety strategy to dramatically improve the safety of the medication process from the distribution center to the bedside. The strategy was comprised of four key elements—patient safety, nursing workflow, pharmacy productivity and physician medication use. And when the focus was on a combination of pharmacy productivity, nursing workflow and patient safety, that’s where AcuDose-Rx medication dispensing cabinets fit seamlessly into the strategy.

“Our overarching goal for this project was to use technology to ensure that our processes were putting us at the leading edge of patient safety in the medication use process,” explained Michael Melby, director of pharmacy at Bloomington Hospital. “And when we chose to implement McKesson Automation solutions, we had the highest level of patient care and safety in mind. All of the solutions we currently use, especially our AcuDose-Rx medication dispensing cabinets, provide us that.”

Challenges

Prior to installing AcuDose-Rx medication dispensing cabinets, Bloomington faced several challenges specific to medication distribution on the nursing units:

- Medication distribution and administration was subject to human error without an automated system
- Turnaround times between order written and medication received were perceived as too long by our nursing customers
- There was no real-time automated tracking of medication usage, overrides and controlled substance discrepancies
- There were space issues for medication storage
- Relationship between pharmacy and nursing was strained

Melby explained that everything at that time was manual, from the pharmacy technician picking the patient specific and floor stock medications, to the nurse dispensing and administering them. The nurses picked medications from patient specific, 24-hour supply drawers, and the safety control was a visual check. The nurses would reconcile controlled substances at the end of each shift.

“With a manual process, there’s always a potential for human error, and that was a huge concern.” added Melby. “Our

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Michael Melby, MS, FASHP
Director of Pharmacy
Bloomington Hospital

nurses would also spend a significant time tracking down missing or misplaced medications which meant more calls to pharmacy and less time spent with patients."

Answers

As part of the medication safety strategy, Bloomington implemented 65 AcuDose-Rx cabinets in 26 nursing units. AcuDose-Rx has made a significant impact on the hospital by streamlining pharmacy and nursing workflow, improving patient safety, increasing charge capture and improving the relationship between pharmacy and nursing.

"Since we've implemented AcuDose-Rx, we have a stronger relationship with our nursing colleagues," explained Melby. "Now we have a shared workflow. It's no longer us versus them. We work together as a team."

The nurses at Bloomington, along with the pharmacy, have been extremely satisfied with the AcuDose-Rx cabinets. He added, "The nurses know they can count on AcuDose-Rx. The system is very reliable, easy to use, and the nurses know that they always have the medications they need, when they need them."

For the nurses, the workflow is simple. They log in and the cabinet points them to the correct medication for a specific patient. This also gives the nurse the

added safety check and assurance that they are dispensing the right medication for the right patient. Bloomington Hospital dispenses over 1 million doses of medication per year. According to Melby, medication selection errors decreased from 3700 per year prior to AcuDose-Rx to 600 per year after AcuDose-Rx.

The system automatically tracks medication use, patient charges, inventory levels, overrides and controlled substance discrepancies. Bloomington has realized a significant reduction in missing medications and stock outs. Missing doses went from 150 per day prior to AcuDose-Rx to less than 25 after AcuDose-Rx. Inventory stock outs per week were reduced by 50 percent.

Additionally, the capacity of the cabinet is a big benefit for Bloomington. With AcuDose-Rx cabinets, the pharmacy is able to provide 96 percent of the first dose and maintenance medications needed by nursing with an average 7 minute turnaround time from order receipt to medication availability. This compares to an average of 90 minutes prior to automation. Previously nursing saw the pharmacy as a barrier to getting the patient's needed medication. Now the pharmacy is seen as a facilitator.

"AcuDose-Rx has been a great addition to our hospital. We have improved patient safety and are reaching our medication dispensing goals," concluded Melby.