

Case Study



MCGHealth Optimizes Med Cabinets for One-Stop Shopping by Nurses

At a Glance

MCGHealth/Medical College of Georgia
Augusta, GA

Solution Spotlight

- AcuDose-Rx®
- MedCarousel®
- PACMED™

Results

- Reduced mispicks and misfills to near zero
- Reduced turnaround time for new routine orders to 90 minutes or less (CPOE order entry to delivery)
- Reduced turnaround time for stat orders to 15 minutes or less
- Established best practices that enhance service levels and increase staff satisfaction
- Realized productivity gains freed pharmacy technicians for cross-training and new assignments

Overview

McKesson solutions enabled MCGHealth to keep pace with rapid market share growth while significantly improving order turnaround time and accuracy. Greater productivity also enabled best practices that enhance the pharmacy's service to nursing staff and, by extension, contribute to improved patient care and safety.

Challenges

MCGHealth of Augusta, the health system of the Medical College of Georgia, comprises a 478-bed adult Medical Center, the 154-bed Children's Medical Center, and the Ambulatory Care Center housing more than 80 outpatient practice sites, in addition to a cancer center located a quarter-mile from the hospital's main campus. A total of 42 pharmacists and 40 technicians work in six separate pharmacies servicing the various centers and operating rooms.

Prior to 2006, MCGHealth pharmacy services' order fulfillment process was entirely manual. As the organization's market share rose and new specialized services such as pediatrics, oncology, and neurology drove a higher case mix, MCGHealth sought a way to meet growing medication order volume.

"The manual process had numerous pain points," said Tad Gomez, director of pharmacy services. Manual order processing, Gomez noted, required three

full-time technicians on each day shift and two additional technicians on each evening shift.

"We put pedometers on technicians while they were picking meds and found that they were walking several miles a day between the stock locations," he said. "While that's great for a wellness program, it's not very efficient for a pharmacy. We needed a solution that made us more efficient, and supported our goals for patient service and safety," said Gomez.

Answers

Late in 2006, Gomez's team transitioned to McKesson's automated solutions, with the MedCarousel medication storage and retrieval system and PACMED high-volume packager in the central pharmacy, and AcuDose-Rx medication cabinets in more than 70 locations throughout the adult and children's medical centers and operating rooms. Approximately 90 percent or more of patient medications are stored in the AcuDose-Rx cabinets.

The pharmacy leverages MedCarousel's inventory control functionality to optimize and manage individual cabinet inventory in ways that reduce workloads while enhancing service to caregivers in each unit. For example, Gomez's staff now stocks AcuDose-Rx cabinets with a single, weekly supply of a given medication whenever a new patient arrives in a unit.

"Our nurses now have one-stop shopping. They know that the medications they need will be in the cabinets for the length of the patient's stay."

Tad Gomez, MS, R.Ph.
Director of Pharmacy Services
MCGHealth

"Our philosophy is 'why touch a medication twice when you can do it right the first time?'" he said. "Automating our processes put that philosophy into practice in a significant way."

"Our average patient stay is between five and six days," Gomez explained. "So we use that baseline to meet our 'touch it once' objective. When a patient admitted to a unit and the initial order comes in through CPOE, the pharmacist can check the AcuDose-Rx cabinet remotely for the medication. If it's not there, the pharmacist prints a label instructing the technician to pick a week's supply based on frequency of administration, and it's loaded into the cabinet."

"We pick it, scan it, and transport it to the cabinet one time," continued Gomez. "We avoid multiple fills of the same order and are able to place the right amount of inventory in the right place at the right time. And our nurses now have one-stop shopping. They know that the medications they need will be in the cabinet for the length of the patient's stay."

Results

The McKesson solution had an immediate, positive impact on pharmacy productivity, according to Gomez. For example, order picking that used to require six dedicated technicians spread over two shifts now takes just three technicians working the day shift.

"Instead of walking 100 feet to pick a medication for an order, the technician walks about three feet around the cart between the two MedCarousels to pick," Gomez explained. "The time savings is great enough that we can have a one technician pick orders and the other two deliver."

Today, the six pharmacy locations handle an annual total of more than 1.6 million medication orders. Daily cabinet

replenishing takes place between 6 a.m. and 2:30 p.m. Turnaround time for new routine orders averages less than 90 minutes from CPOE order entry to delivery of medication to the nursing unit. Turnaround time for stat orders is less than 15 minutes.

Equally important, freeing technicians' time allows MCGHealth to retrain them to handle a wider variety of tasks.

"Technicians no longer work in their own silos," he said. "Now, every technician can handle every function, which gives us much greater versatility. Because picking doesn't take an entire shift, a technician also has time to receive and process orders, restock medications in the MedCarousel, and perform other tasks."

The reduction in order turnaround was accompanied by a marked decline in medication errors, which have dropped to near zero, Gomez noted.

"Before, several mispicks each week made it into the cabinets before they were detected," Gomez said. "Now we might see one every couple of months and it's typically a look-alike/sound-alike or a technician error with the equipment."

Perhaps most important, the best practices enabled by automated solutions are yielding multiple benefits. Gomez noted, for example, that improved inventory control and optimization keep expired medications at acceptable levels, even with the practice of stocking individual cabinets with a length-of-stay supply for each patient.

At the same time, the practice yields noticeable improvements in staff satisfaction with pharmacy services. "The nurses know the meds are there when needed," Gomez said, "And they appreciate it."