Customer Success Story

CAROLINAS MEDICAL CENTER

Carolinas Medical Center NorthEast Finds Exceptional Customer Service Reason to Switch to Omnicell System and Software Solutions

Challenges:

- Medication must be administered to the right patient in the right dose at the right time
- Clinicians need to focus more time on patient care and less on operational procedures
- Manual procedures make it difficult to capture all medication and supply charges

Solutions:

- Omnicell PharmacyCentral: automated pharmacy storage and retrieval system
- OmniRx: advanced automated medication dispensing
- OmniLinkRx: physician order management system
- Omnicell SecureVault: controlled substance inventory management system

Results:

- Hospital pharmacies can manage and improve efficiency in the complete drug distribution process from the receipt of drugs from the wholesaler to the patient’s bedside
- Clinicians have a safe and efficient method to administer and track medications with the touch of a few buttons
- Hospital pharmacies can track, monitor, and control the movement of controlled substances from a central vault to one, or many, locations

Case Study

Carolinas Medical Center NorthEast is part of the Carolinas HealthCare System, the largest health care system in the Carolinas and the third largest public system in the nation. Ranked by U.S. News & World Report as one of “America’s Best Hospitals”, the hospital has an internal culture of excellence with a strong focus on patient safety.

The pharmacy services department is an integral part of the hospital’s mission to improve patient safety and operational efficiency. The pharmacy plays a major role to ensure that each patient receives the right dose of medication, with the right frequency, at the right time; it must also adhere to rigorous patient safety guidelines to remain compliant with The Joint Commission.

Since his tenure began in June 2007, Troy Hilsenroth, operations manager of pharmacy services, and his staff have diligently provided recommendations to hospital administrators for continuous improvement. When Troy started, the hospital was using Pyxis automated medication and supply management systems from Cardinal Health. As the hospital continued to grow and add beds, it became clear to the pharmacy services staff that existing equipment and processes needed to be upgraded.

“With our legacy cart-fill non-profiled system, too much of the burden was placed on the nursing staff to keep track of medications and supplies. Nurses needed to go to numerous different places in their unit to get what they needed, such as the cart, the refrigerator, the counter. In addition, they were experiencing very long turnaround times to process new orders and missing doses. We needed to redesign our drug distribution process,” said Hilsenroth.

Cartfill vs Cartless

With the legacy cart-fill system, multiple checks for each dose were in place, but the primary drawback was the labor-intensive process. Every 24 hours, a pharmacy technician had to prepare all medications needed for the next 24-hour period and place them in the medication cart. This often resulted in substantial duplication of effort to process missing doses and returned medications. And although medications were stored in an automated dispensing machine, there were no controls on what was taken out of the carts once a user gained access.

The newly installed cartless system involves the use of medication dispensing cabinets with multiple secure compartments, each designed to contain a supply of one specific medication. Pharmacists can store the most commonly used medications in the cabinet, and control access via a computerized pharmacy information control system.

Advanced Omnicell Technologies

When Carolinas Medical Center NorthEast set out to convert from a cart-fill, non-profiled system to a cartless profiled system for its medication-use process, it began to evaluate partners that could supply the hospital with integrated solutions that tracked medication from the time it arrived at the hospital pharmacy to the point it was delivered to the patient. Many of the vendors that the hospital considered had adequate equipment, but it became clear to Hilsenroth and his staff that Omnicell technology was the most advanced.
Recognizing that medication safety starts in the pharmacy and ends at the bedside, Omnicell supplied a comprehensive suite of solutions at Carolinas Medical Center NorthEast for every step of the medication-use process. Omnicell carefully tailored scalable solutions for the hospital’s central pharmacy and nursing units, with well-planned collaborative installation interfaces to all appropriate IT systems.

To date, Carolinas Medical Center NorthEast has installed two Omnicell carousels, a 500-cell packager, OmniLink Rx, 80 OmniRx advanced automated medication dispensing systems, and a SecureVault, controlled substance inventory management system. Software solutions like OmniLinkRx and WorkflowRx simplified the communication of orders from remote nursing stations to pharmacists, and integrated the medication management process within the central pharmacy. The replenishment of decentralized cabinets, as well refilling patient medication bins, has been automated and secured. For records, a detailed history of all transactions finally gives pharmacy managers the opportunity to easily capture data for reporting and data analysis.

**Omnicell Focuses on Customer Satisfaction**

Advanced technology was a primary factor in the hospital’s decision to partner with Omnicell, but what ultimately won the day, said Hilsenroth, was the relationship that Omnicell built with his team.

“Relationship was the number one reason we selected Omnicell,” said Hilsenroth. “Omnicell made it clear that they were willing to work with us to find the solution that best fit our needs. They said they wanted to provide us with the best customer experience in healthcare and they delivered.”

Omnicell is dedicated to providing exceptional service and support during the customer relationship. Whether the objective is to constrain costs, increase charge capture, maximize productivity or improve patient safety, Omnicell differentiated solutions are designed for nurses and pharmacists, and are highly configurable to meet each hospital’s specific needs.

**Increasing Patient Safety and Operational Efficiency**

The pharmacy staff at Carolinas Medical Center NorthEast quickly began to reap the benefits of the Omnicell systems. Hilsenroth found that Omnicell’s modular design helped the department monitor and control medication dispensing and administration, manage physician order processing, comply with The Joint Commission regulatory standards, improve patient care, and decrease costs.

“Of course the most important benefit is increased patient safety,” said Hilsenroth. “We now use bar code scans five times before a medication ever gets to a patient. The drug is first scanned and verified in the receiving area. That drug is scanned again when it is stocked in the Omnicell carousel. In order to remove the drug from the carousel, it has to be scanned again. When we refill the cabinets, we scan the drug and we scan the bin where the drug is being placed. The nurse then comes to the cabinet, takes the drug out and scans it once more at the bedside.”

“Workflow efficiency has also dramatically improved,” continued Hilsenroth. “The nurses now have only one place to go for 95 percent of their medications. Instead of constantly calling the pharmacy to manage missing medications, they can spend more time with their patients,” said Hilsenroth.

Hilsenroth also appreciates the robust functionality of the Omnicell solutions.

“Re-designing our drug distribution with an integrated solution significantly increases our ability to achieve exceptional performance in clinical quality, patient satisfaction, and efficiency. Our realized increase in charge capture has been considerable: a 17 percent increase in net charges on an annualized basis, which more than pays for our lease on the equipment,” said Hilsenroth.

Taking a leadership role in the industry, Carolinas Medical Center NorthEast has also installed automated drug distribution in its surgical department. With four new automated medication dispensing systems, and 17 anesthesia workstations, the hospital’s surgical staff now has an efficient method of accounting for medications and supplies in the OR.