



St. Luke's University Hospital automates cabinet filling with XR2 central pharmacy system

Customer Profile

St. Luke's University Health Network is a fully integrated, non-profit teaching hospital system providing services at 10 hospitals and more than 300 outpatient sites in central-eastern Pennsylvania and in New Jersey.

The Challenge

As longtime users of central pharmacy robotics, St. Luke's pharmacy leaders recognized the safety and operational benefits that automation systems can deliver.

However, after the campus transitioned to a cartless medication distribution model, pharmacy leaders believed traditional robotic medication storage and retrieval systems were incompatible with filling for its automated dispensing cabinets, where up to 75 percent of patient medications are stored.

The Solution

Faced with these challenges, St. Luke's became an Omnicell development partner and instituted the new XR2 Automated Central Pharmacy System to automate filling operations for the 94 medication dispensing cabinets at Bethlehem. The XR2 system enables:

- 100 percent barcode scanning, eliminating human error
- Automated cabinet fill and cart fill operations
- Use of manufacturer unit-dose barcode, reducing packaging burden
- Proactive management of inventory levels to reduce waste



St. Luke's University Hospital Bethlehem, Pennsylvania

Challenge

- Medication distribution model change
- Suboptimal processes filling medication cabinets
- High cost of medication packaging associated with automated systems

Solution

- XR2 Automated Central Pharmacy System
- Pharmacy Carousel
- Omnicell XT Automated Medication Dispensing System

Impact

- 100% accuracy
- 400 line items stored and automated
- Redeployed pharmacist labor to new clinical programs
- Reduced costs associated with medication packaging

The Impact

The XR2 system automates storage and dispensing of more than 400 line items with 100% accuracy, enabling St. Luke's to redeploy pharmacists to new clinical programs.

Dynamic Filling, Restocking, Inventory Management

For St. Luke's daily cabinet fill, the XR2 receives the replenishment order and begins picking medications on a per-cabinet, batched-medication basis. Each batch is sealed in individual clear bags and barcode labeled for the cabinet destination using XR2's Auto Packager system.

The XR2 also performs a daily mini-cart fill of about 300 items, with the patient-specific medications sealed in individual, barcoded packages. This takes about 90 minutes to complete for delivery to patient care areas.

A pharmacist performs a random quality assurance check of 10 percent of the medications picked by the automation.

Enabling Technician Labor Flexibility

While the robot is picking meds for cabinet fill, a single pharmacy technician can oversee the system, which requires limited oversight during filling and restocking operations. The technician is free to perform other tasks.

An unintended benefit for St. Luke's is the impact on scheduling. Previously, technicians completed many drug deliveries overnight. When the hospital instituted a quiet initiative to help patients sleep better, pharmacy transferred cabinet filling for patient areas to other work shifts and experiencing greater efficiency.

“The automation freed up pharmacists' time for new clinical programs we didn't have before.”

■ Donna Yeaw
Director of Pharmacy

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