



Summa views medication filling for multiple campuses with XR2 central pharmacy system

Customer Profile

Akron-based Summa Health is among Ohio's largest integrated health delivery systems with more than 1,300 licensed inpatient beds at its Akron, Barberton, and St. Thomas campuses.

The Challenge

For years, Summa's three hospitals managed medications with automated dispensing cabinets and a decentralized distribution model.

While the Akron City campus was aided by the use of a central pharmacy carousel, the other two campuses stored and picked medications manually – a labor-intensive and error-prone process. Seeking to redeploy staff to clinical tasks, pharmacy leaders formulated a vision to automate cart filling operations across all three hospitals.

Further, because the facilities are within a 15-mile radius, the pharmacy leaders envisioned centralizing automated medication filling in the Barberton campus and using health system couriers to distribute medications to other sites.

The Solution

Summa became an Omnicell development partner for the new XR2 Automated Central Pharmacy System. The XR2 system automates critical workflows to increase medication safety, improve efficiency, and maximize inventory control. The XR2 system:

- Provides 100% barcoding, eliminating potential human error
- Supports a hybrid distribution model, including cartfill, cabinet filling, and first dose dispensing
- Uses advanced algorithms to manage inventory and reduce waste



Summa Health

Akron, Ohio

Challenge

- Medication dispensing errors
- Pharmacy technician labor shortages
- Desire to shift pharmacists to clinical tasks

Solution

- XR2 Automated Central Pharmacy System

Impact

- 100% accuracy with automated picks
- 10% spot check vs. 100% pharmacist check
- Multi-campus medication filling capabilities
- Reduced risk of expired medications
- Avoided medication repackaging costs

The Impact

Among Summa's objectives for the XR2 system was to automate central pharmacy cart fill and first dose operations at the Barberton campus. Daily patient-specific picks average around 1,200. Each order is sealed in individual, clear, barcode-labeled bags using XR2's unique Auto Packager system.

Prior to the XR2 system, dispensing errors comprised 13.5% of all reported errors at the Barberton campus. Following XR2 implementation, the rate for all automated and non-automated picking errors fell to just 1.2%, with many months containing zero reported errors.

Brandon Singer, Barberton's Pharmacy Supervisor, said, "With the XR2 system, we saw an immediate reduction in documented cart fill mispicks. It's been a significant safety win."

Daily Cabinet Filling

Summa tested the XR2 system for daily filling of Barberton's unit-based cabinets.

The XR2 system receives the cabinet fill order, recognizes which items are stocked in the system, and begins filling the order on a per-cabinet, per-storage location basis. Orders are individually and barcode labeled. Technicians complete the cabinet fill for any items stocked offline. The items are then prepared for transport to the cabinets.

Extensible Automation

Summa sought and received permission from the Ohio Board of Pharmacy for an hourly 10% spot check in lieu of a 100% pharmacist check for cart fill and first doses. They also initiated plans to use the XR2 system for cart and cabinet filling for its other hospitals.

The pharmacy team continues to collect and evaluate data in order to improve inventory management and productivity, and further system expansion.

“The XR2 system is a game changer when it comes to robotics because it has the flexibility to work with any pharmacy distribution model, and to fill for cabinets, cart fills, and first doses.”

“The end game, of course, is to leverage the XR2 system to enable pharmacists and technicians to practice at the top of their licenses. Automating the distributive processes enhances patient safety, improves efficiency, and creates inventory visibility for better management. And in the end, you have a much more gratified staff because they know they are making a positive clinical impact at the bedside for our patients.”

■ John Feucht
Vice President, Pharmacy Services

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