Omnicell™

CAPE REGIONAL
HEALTH SYSTEM

Cape Regional Doubles Down on Medication Dispensing Robotics

Customer Profile

Cape Regional Medical Center is a 242-bed acute care facility within Cape Regional Health System, an integrated healthcare system serving residents and more than one million seasonal visitors throughout Southern New Jersey.

The Challenge

Nurses at Cape Regional Medical Center are vocal supporters of the hospital's medication distribution model. For more than a decade, nurses have gathered PRNs and controlled medications from unit-based automated dispensing cabinets (ADCs) while retrieving daily medications delivered by pharmacy to wall cabinets inside patient rooms, thus avoiding lines at ADCs and making medication passes more efficient.

To prepare for an upgrade to a new-generation technology, pharmacy leadership partnered with nursing, finance, and hospital administration to lead a detailed assessment of their medication distribution model.

The Solution

Ultimately, the leadership team chose the Omnicell XR2 Automated Central Pharmacy System and a Pharmacy Carousel. The XR2 system:

- Enables 100 percent barcode scanning, eliminating human error
- Supports both cart fill and cartless medication distribution
- Leverages manufacturer unit-dose barcodes, reducing reliance on repackaging
- Uses advanced algorithms to reduce waste and maintain accurate inventory

Cape Regional Medical Center
Cape May Courthouse, New Jersey

Challenge

- Medication repacking labor
- Multiple pharmacy automation systems
- Avoid disruption to nursing processes

Solution

- XR2 Automated Central Pharmacy System
- Pharmacy Carousel

Impact

- Reduced repackaging by 90%
- Maintained pharmacist checking at 5%
- Consolidated all systems on one platform
- Retained nursing's preferred model
- Avoided disruption of pharmacy clinical programs

The Impact

The XR2 system automates storage, retrieval, and inventory management for more than 90 percent of non-IV and non-narcotic formulary in a variety of form factors, including individual blisters, blister cards, vials, cups, packets, syringes, and others.

The XR2 met Cape Regional's core project objectives by:

- Reducing overall medication repackaging by more than 90%
- Aligning on Central Pharmacy Manager software and OmniCenter® platform
- Optimizing pharmacists' 5% medication checking of robotic-dispensed doses
- Automating more medications due to greater storage capacity

Implementation to Minimize Disruption

To minimize disruption, pharmacy leaders followed an aggressive timeline. The new XR2 system and carousel were installed in the same space as the previous robotic and carousel systems. Uninterrupted medication distribution was achieved by flexing old and new technologies, augmented by existing staff performing some manual processes.

Soon, the XR2 was dispensing 2,500 non-IV cart fill and first doses per day in patient-specific sealed bags with oversight from a single technician who also manages carousel processes. A floater technician aids in restocking.

Strong Pharmacy-Nursing Partnership Is Key to Success

Pharmacy leadership stressed that its strong partnership with nursing was pivotal to the project's success. Lessons learned include:

1. Involving stakeholder groups in making key decisions

2. Open and frequent communications throughout the implementation process

3. Thorough contingency planning to avoid potential disruptions and minimize downtime

4. Encouraging hands-on learning and interactive feedback to help overcome objections and stimulate acceptance

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" First and foremost, with XR2 we gained an important safety feature by significantly reducing repackaging touches by techs and pharmacists. Ordering direct from the manufacturer in unit dose form eliminates a huge hole in the Swiss cheese for potential medication errors. That's a big advantage."

" With the XR2 cart fill model, we're better able to predict technician labor costs for the next 10 years than if we had gone with a different medication distribution model that requires more labor."

- Richard J. Artymowicz, PharmD
Director of Pharmacy Services and Administrative Director of Sleep and Wound Services