Stepping into the Future
How Sentara RMH Medical Center transformed its pharmacy with the XR2 Automated Central Pharmacy System

THE CHALLENGE
Sentara RMH Medical Center had been successfully using the Omnicell® ROBOT-Rx® Central Pharmacy Robotic System for 18 years. But due to its age and capacity limitations the pharmacy sought to transition to new technology. A key driver was supporting the hospital’s mission to provide the highest level of medication safety. The pharmacy also wanted to maintain nurse satisfaction and avoid disrupting existing workflow associated with their centralized cartfill and nurse server model.

THE SOLUTION
The hospital implemented the new Omnicell XR2 Automated Central Pharmacy System, a highly flexible and scalable robotic system that works with cartless and cartfill distribution. Now more medications are managed through automation, providing safer, more accurate distribution. XR2 does not require medications to be repackaged, which has been a big bonus for the pharmacy. Other benefits include:

- 100 percent barcode scanning, eliminating human error
- Reduction of doses requiring pharmacist verification
- Reduction of expired medication waste
- Greater inventory control

CUSTOMER PROFILE
A longtime partner with Omnicell, Sentara RMH Medical Center is a 238-bed community hospital providing cardiac, oncology, orthopedic, and mother-baby service lines, among others. It serves a seven-county area in the Shenandoah Valley region of Virginia and is part of Sentara Healthcare, an integrated healthcare system with 12 hospitals in Virginia and North Carolina.

RESULTS
- Dramatically reduced repackaging
- Increased capacity
- Improved throughput
- Enhanced patient safety

IMPACT ON STAFF
- Staff redeployed to higher-value tasks
- Smooth transition and easy to use
- No disruption to nurse workflow
Next-Generation Versatility

In comparison to traditional pharmacy robots, the next-generation XR2 system is far more versatile in handling medications.

It supports up to 90 percent of formulary medicines in different form factors—from blister cards to syringes—with no repackaging needed. Previously, one technician worked full-time repackaging medicines into unit doses for the hospital’s cartfill.

“You can throw anything you want to into the XR2 system,” said Jamin Engel, Pharmacy Manager. “If it has a barcode and fits in that form factor, XR2 will pick it.”

“I sit there sometimes and watch that thing pick, and I am amazed at what it does and how it does it,” said Betsy Early, Director of Pharmacy for Sentara RMH Medical Center. “I’ve been a pharmacist for over 30 years. To see how far we’ve come is incredible.”

Enhancing Safety and Freeing Staff Time

Using 100 percent barcode scanning, the XR2 system provides a more fully automated approach to medication inventory management, which helps prevent medication errors.

Its vast capacity means that Sentara RMH can pick most medications robotically now, reducing verification burdens on pharmacists. Cartfills are faster and easier, too—they don’t have to be interrupted to restock the XR2.

As a result of increased efficiency, the team has redeployed staff to more value-added activities, which has made the XR2 popular with technicians and pharmacists alike.

“Staff have a huge sense of pride in the XR2,” said Pharmacy Team Coordinator Bill Thomas. “They realize this is the future.”