



University of Rochester realizes quality and safety benefits from IV automation

Customer Profile

The University of Rochester Medical Center (URMC) in Rochester, New York is one of the nation's leading academic medical centers. It forms the centerpiece of the University of Rochester's health research, teaching, and patient care missions.

The Challenge

URMC was heavily dependent on outsourcing IV preparations. When a series of events impacted the supply chain, the medical center opted to consider insourcing. However, they identified areas of weakness in their IV compounding processes, including wrong product selection, incorrect volume added, omitted ingredients, and missing checks.

The Solution

URMC's goal was to adopt a complete automation system for all types of preparation across patient populations. To get there, they adopted a number of Omnicell IV compounding solutions:

- Non-hazardous IV compounding robots
- Hazardous IV compounding robots
- IV workflow automation

These Omnicell solutions addressed URMC's primary focus on patient safety while also offering cost benefits – URMC could now reduce medication costs by producing non-commercially available, standardized doses on site.



**University of Rochester
Medical Center**
Rochester, New York

Challenge

- Supply chain disruptions with outsourcing
- Safety issues with internal IV compounding processes

Solution

- Non-hazardous IV compounding robots
- Hazardous IV compounding robots
- IV workflow automation

Impact

- 455,000+ doses
- 100% error free
- 100% contamination free
- Extended BUD
- Regain control over IV prep supply chain

The Impact

The IV compounding technology from Omnicell enabled URMIC to enhance patient safety, reduce IV medication costs, improve efficiency, and increase worker safety. Specific benefits include:

- Achieved ROI
- Decreased human-based errors
- Redeployed staff to higher-value tasks
- Control over the quality and quantity of IV dose preparation
- Extended BUD (beyond-use dating) for IV products

Since the start of the program, of the doses produced through automation, URMIC has:

- Processed 455,000+ error-free doses
- Scanned 100% of ingredients
- Reduced touch contamination risk by >90%
- Gravimetrically verified 100% of doses

Taking Control of Known Dangers

The risks of manual processes and checking systems are well known. By implementing Omnicell IV robotics and workflow management, URMIC was able to replace the decision points in the compounding processes that relied upon human intervention with automated safety checks that ensured a higher degree of accuracy, integrity, and sterility.

The automation improved staff safety, too. Robotic compounding protects the compounding area from contamination and protects the IV room staff from exposure to hazardous drugs.

On the Way to 100%

URMIC's automation strategy focused on three key safety elements: barcode verification, digital image capture, and gravimetric checks. Their goal is to have 100% hazardous doses prepared with all three safety mechanisms. Explained David Webster, Director of Acute Care Pharmacy Operations, "This strategy represents a significant step toward ensuring all patients receive medications produced using the safest sterile compounding processes available."

"URMIC is well on its way to reaching its goal of subjecting all sterile compounds to a minimum standard of barcode verification of ingredients and gravimetric validation."

David Webster, RPh, MSBA

Director of Acute Care Pharmacy Operations

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