



Med-surg nurse Colette Byrnes uses the automated medication dispensing cabinet to procure patient medications at HackensackUMC. Nurse satisfaction has increased as a result of the machines, she said.

## Technology Time Saver

Automated medication distribution is an added tool for busy nurses

By Danielle Bullen

**MANY POTENTIAL** interruptions can compromise complex medication administration. Hackensack University Medical Center (HackensackUMC) in New Jersey now uses technology to streamline this process. The hospital implemented a new automated medication distribution system that puts a stop to interruptions.

“It’s definitely faster,” remarked Colette Byrnes, BSN, RN, a med-surg nurse at HackensackUMC.

### Safety Checks

The automated dispensing cabinet improves patient safety. A standout feature of the new system is that the bin that holds the particular medications a patient needs is the only one unlocked. “You can’t take out the wrong pill,” Byrnes said.

Another key safety checkpoint is the biometric scanner. Using such information increases accuracy and ensures the right patient is getting the right dosage.

“Medication errors are the most common medical error in health-care,” said Claudia Douglas, DNP, RN, CNN, APNC, administrative director for HackensackUMC’s Institute of Evidence-Based Practice and Nursing Research. “The integration of biometric scanning has transformed how medication administration is conceptualized and delivered.”

A linked computer program means nurses can open up all medication drawers for a particular patient simultaneously, queuing up the meds and saving time. Another important feature is that nurses can administer medications from their smartphones.

“That’s a game changer,” Douglas noted. The feature came into play during a power outage at the facility, which did not impact timely medication administration.

### Personalized Process

Maria Sangiorgi, BSN, RN, a bone marrow transplant nurse, added, “The more detail you give, the more you get out. It can help us see things that paper cannot.” The system can be configured to meet the specific needs of each unit.

Automation makes balancing hands-on patient care acts with technical duties easier. “If you plot out your day, you know how much time you need for each,” Sangiorgi noted. The technology helps them remember important details.

### Patients First

Nurses spend time at the bedside, talking to patients, answering questions and explaining the functions of the pills. Even during high-volume distribution times, they are not just dropping off the meds and leaving. Each patient interaction is an opportunity to build rapport.

For certain nurses, there was a learning curve with the technology, and they needed extra time to adapt to the new workflow. Once they learned the process, though, everyone appreciated its benefits.

### Nursing Perspectives

Nursing staff should be at the forefront of technological decisions such as implementing automated medication systems.

Before such systems are launched, telling IT staff how things are done identifies and improves upon workflow gaps.

“We are doing the brunt of the workflow, so getting our input is good so we can help optimize,” Sangiorgi said.

HackensackUMC conducted the IMPact of a Regulated ADC System On Medication Distribution and Administration Variables (IMPROVE) study to examine the results of the automation.

The study looked at 8,000 administered doses in one particular drug and found a 40% reduction in the time to the first dose administration to patients.

“We embedded really good infrastructure,” Douglas explained. “Nurses are now able to optimize time more efficiently.” ■

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