

Automated Medication Dispensing Enhances Patient Care, Improves Bottom Line



Oconee Memorial Hospital

Location: Seneca, South Carolina

Beds: 160

Community Population: 25,000

This article examines how one hospital, Oconee Memorial Hospital, utilizes Omnicell's automated medication dispensing system to reduce costs, recapture lost charges, manage narcotic inventory, and improve the quality of patient care by ensuring timely medication delivery and involving pharmacists in more clinical roles.

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Bill Stevenson, Director of Pharmacy Services

Many hospitals are quickly realizing that outdated medication dispensing systems are often a key cause of lost revenue. Additionally, these systems are often very inefficient, requiring pharmacists to spend time on basic dispensing tasks and paperwork rather than providing important clinical services, such as fielding questions from the medical staff, reviewing patient charts, monitoring drug levels, and providing patient education. To address these issues, many hospitals are turning to automated medication dispensing systems to help them better manage drug inventory, reduce medication-related costs, recapture lost charges, improve efficiency, and enhance patient care.

Getting Started

Oconee Memorial Hospital, a 160-bed community teaching hospital in Seneca, South Carolina, is reaping the rewards of automation.

The main factor for Oconee Memorial's move to automated medication dispensing was primarily financial, although other benefits soon became apparent once the system was in place.

“We knew we had to do something because we were losing so much money to lost charges,” said Bill Stevenson, B.S. Pharmacy, Director of Pharmacy Services at Oconee Memorial.

After researching the various systems that were available and attending vendor demonstrations and site visits, Oconee Memorial chose to go with Omnicell's automated medication dispensing system.

“We chose to go with Omnicell for a variety of reasons,” said Stevenson. “We like how easy Omnicell's system is to use, its customizable interfaces, and the fact that we can easily reconcile charges with the system. We also like the safety features it offers, such as guiding light technology, which helps direct the user to the right medication, and patient medication profiling, which provides important patient safety benefits.”

Omnicell's patient medication profiling feature ensures that a pharmacist reviews the dosage, route of administration, contraindications, drug interactions, and drug allergies before medications can be retrieved from the cabinets on the nursing unit. It also ensures that the patient's complete drug profile is displayed on the cabinet's screen when the nurse accesses the cabinet.

Financial Benefits

During the first quarter of 2000, 32 Omnicell medication dispensing cabinets were installed throughout the hospital, accommodating 95 percent of the medications used. To help maintain the security of narcotics inventory, Omnicell's narcotic vault system was installed in the pharmacy. In April

2000, the hospital went live with automation and immediately began to see results.

"After just the first month, we saw our total number of billed medications increase from 124,000 to 166,000 per month. This doubled our pharmacy revenues from \$700,000 to \$1.5 million per month," said Stevenson. "And since we had a better grasp on medication utilization throughout the hospital, our pharmacy was able to reduce its inventory from \$225,000 to \$198,000 per month and increase its inventory turnover rate."

Oconee Memorial has realized other savings as well. "By using our automated dispensing system, we've been able to save \$21,300 per year on drug labels alone," said Stevenson. "We've also been

able to save \$26,000 annually on narcotics forms and a conservative \$120,000 per year in nursing overtime because our nurses no longer have to do end-of-shift narcotics counts. Nurses now only cycle count one time each week on Wednesdays."

Improved Efficiency

Improved efficiency is another important benefit of automation for Oconee Memorial. "We can now do our restocking in 20 minutes instead of the four hours it used to take," said Stevenson.



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Director of Pharmacy Services
Oconee Memorial Hospital

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Virginia Johnson, RN, Nurse Manager

“Automated medication dispensing has been a great benefit to the nursing staff,” said Virginia Johnson, RN, a nurse manager at Oconee Memorial. “With the Omnicell System, we no longer have to wait for medications to be brought up to the unit from the pharmacy. Now access to needed medications is immediate, yet secure. There is also a greater accountability for drugs dispensed, and patients receive their medications in a more timely manner. And since the system automatically tracks narcotics with every issue, we’ve seen a significant reduction in nursing time and its related costs.”

Clinical Pharmacist Impact

Automated medication dispensing has also allowed Oconee Memorial to effectively redeploy its pharmacists throughout the hospital. “One of the most significant benefits of automation is that it has allowed us to get our pharmacists out of the dispensing role and into a more clinical role where they can have a greater impact on patient care,” said Stevenson.

Oconee Memorial began full implementation of its clinical pharmacy services program in March 2002.

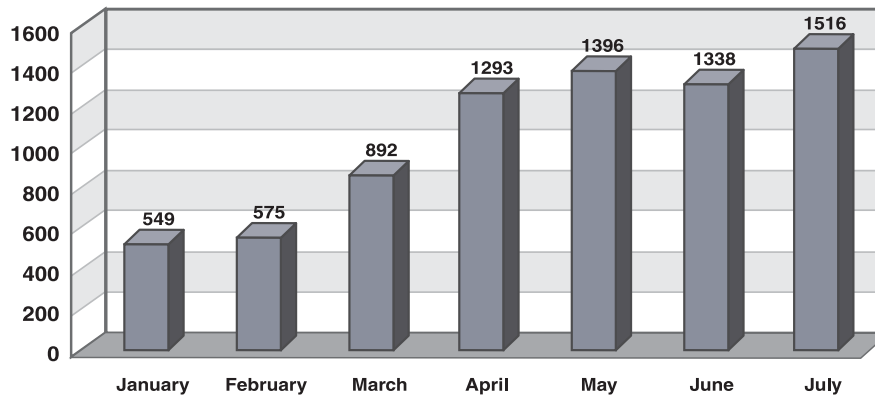
“Before we instituted automated dispensing, we averaged about 80 pharmacist interventions per month,” said Stevenson. (Stevenson defines an intervention as a critical clinical intervention by a pharmacist in a patient’s care, such as identifying a prescribing error, offering drug advice to physicians and nurses, catching a potential drug allergy, or following up on a critical drug blood level. Thirty different pharmacist interventions are tracked at Oconee Memorial.) “After installing the Omnicell System, our interventions reached almost 600 per month. Since formally establishing our clinical pharmacy services



Virginia Johnson, RN
Nurse Manager
Oconee Memorial Hospital

program in March 2002, we've been averaging more than 1,300 interventions per month," said Stevenson.

Oconee Memorial Hospital Pharmacist Clinical Interventions January - July 2002



Achieving Success

Both Stevenson and Johnson are pleased with what has been achieved with automated medication dispensing at Oconee Memorial.

"I really like the fact that the system provides ready, yet secure, access to medications and complete accountability," said Johnson. "I can easily determine, through the system's reporting features, who removed what drug and when. This information allows me to follow up on any unusual activity. The Omnicell System has also helped us to decrease the potential for drug errors. Both its guiding light technology and patient medication profiling feature provide important double checks in the medication dispensing process. It has also allowed our pharmacists to be on the units more, providing patient education, checking charts for medication issues, and answering any questions we might have. Automated dispensing has been a real time-saver for us, too, since we no longer have to do end-of-shift narcotic counts."

"I'm very proud of what we've achieved with automation," Stevenson said. "It's so different—and so much better—than what we did in the past."



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