

Automated Pharmacy Dispensing in the Small Hospital



Fairview University Medical Center-Mesabi

Location: Hibbing, Minnesota

Beds: 140

Community Population: 17,071

This article shows how one small hospital was able to benefit from the flexibility and modularity of the Omnicell System to meet the unique and specific needs of the facility.

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Hospitals of all sizes face many of the same issues when it comes to safe and efficient medication dispensing. Pharmacy automation technology has made great strides in recent years to help address these issues, yet a common misconception persists that the application of such technology is only practical in large medical institutions. But even small hospitals can benefit greatly from streamlining their medication dispensing processes. To this end, Omnicell® offers a complete product line that includes a variety of hardware, software, and modular designs to meet the automated dispensing needs of any size medical institution—large or small.

Automation Comes to Fairview University Medical Center-Mesabi

One small hospital that has experienced the benefits of Omnicell’s automated medication dispensing systems is Fairview University Medical Center-Mesabi, a 140-bed acute care community hospital in Hibbing, Minnesota.

Fairview’s journey to automation began in 1999 after the hospital did an analysis of lost charges on its floor stock medications. Lost charges were considerable, but were of particular concern in the ER, OR, and ICU. The actual cost of drugs missing from these areas was about \$50 per day, while lost patient charges totaled about \$150 per day. Additionally, drug inventories, which were done manually each day, were time-consuming and often inaccurate, and as a result the drugs on hand often didn’t meet the needs of the patient care units.

Fairview established a committee that included both pharmacists and nurses to look into ways to improve its drug inventory management and charge capture. The committee eventually concluded that automated dispensing technology would provide the necessary controls it was looking for. After comparing the features and benefits of available systems, the committee decided to go with Omnicell’s automated medication dispensing system.

“Omnicell’s system had several features that we really liked, but weren’t available on other systems,” recalled

Neil Walker, RPh, pharmacy manager at Fairview. “We especially liked Omnicell’s intuitive Color Touch display, its reporting features, and its customizable drawers with guiding lights.” Omnicell’s unique guiding light technology—flashing lights above and below the correct bin in a drawer—helps guide users to the correct medication.



Neil Walker
RPh, Pharmacy Manager
Fairview University Medical Center-Mesabi

In April 2000, Fairview installed Omnicell’s OmniRx[®] cabinets in the ER, OR, and ICU. Additionally, a Two-Cell OmniSupplier[®] auxiliary cabinet was installed in the ER. The OmniRx cabinets were chosen because they provided many dispensing capabilities in a compact size and could be configured with a variety of individual drawer options.

Benefits of Automation

The OmniRx cabinets quickly had an impact. “We virtually eliminated missing and inaccurate charges, and the money we saved on the recapture of lost charges alone more than paid for the OmniRx cabinets in these areas,” Walker said.

Fairview also saved a significant amount of time on drug inventory management, especially when it came to managing narcotics.

“For us, one of the greatest benefits is the time we save not having to do end-of-shift narcotics counts, which are now done by the OmniRx cabinets,” Walker

“The drawers are also easy to update, so if we decide we want to add or remove a drug from the cabinet’s inventory, we can do so quite easily.”

Char Maki, RN, ER Patient Care Facilitator

said. By eliminating overtime associated with this end-of-shift task, Fairview realized savings of more than \$36,000 annually.

Walker added that the reports generated by the system have also helped Fairview better manage par levels. “The par versus usage and no-use reports generated by the system give us a detailed and accurate account of exactly what drugs are being used and in what quantity. Not only does this allow us to restock the cabinets more accurately and less frequently, but it also allows us to significantly reduce the volume of stock drugs we store on each patient care unit,” Walker said.

Automation Benefits Nursing

The OmniRx cabinets have had a significant impact on nursing as well. According to Char Maki, RN, ER patient care facilitator at Fairview, the OmniRx’s flexibility and ease of use are among its greatest assets.

“The OmniRx cabinets allow us store the medications we want, where we want them,” said Maki. “The drawers are also easy to update, so if we decide we want to add or remove a drug from the cabinet’s inventory, we can do so quite easily.”



Char Maki
RN, ER Patient Care Facilitator
Fairview University Medical Center-Mesabi

Maki also noted that having the ability to custom configure the cabinet drawers and bins to reflect the needs of each patient care area has safety benefits as well. "Laying out the medications in the order we want allows us to keep look-alike and sound-alike drugs far away from each other. In addition, the cabinets have guiding lights, which help direct the nurse to the correct medication. Together, these features substantially reduce the risk of 'pick errors'. In fact, we've virtually eliminated pick errors since we installed the OmniRx cabinets."

Maki also noted some of the unique benefits the Omnicell automated dispensing system brings to the ER. "Here at Fairview, we do not have 24-hour pharmacy coverage, so at night, we often must give discharged ER patients the first few doses of their prescriptions to take home with them. In the past, this often meant a trip to the pharmacy by the patient care supervisor to get the needed drugs. This was not only time-consuming for the busy patient care supervisor, but pick errors and lost charges often occurred, too. The OmniRx cabinets have virtually eliminated these problems. In the ER's OmniRx cabinet, we store up to 200 to 300 different medications, so whatever is needed is readily available and patient charges are accounted for appropriately. It's been a real time- and cost-saver for us."

Success Spurs Expansion

As a result of the success achieved with the Omnicell automated dispensing system in the ER, OR, and ICU, Fairview decided to expand its automation program throughout much of the hospital in May 2001. OmniTT (table-top) units were added to the psychiatry, chemical dependency, pediatrics, medical-surgical, same-day surgery, and post-anesthesia recovery units to better manage emergency medications and controlled substances.

In the future, Walker noted that he'd like to see Fairview expand its Omnicell automated medication dispensing system to include Omnicell's patient medication profiling feature. By displaying the patient's complete medication profile on the cabinet's screen at the point of care, this feature allows pharmacists to review information on dosage, administration, contraindications, drug interactions, and patient drug allergies prior to the drug being dispensed from the Omnicell cabinets on the nursing units. As Walker noted, "One of the nice things about the Omnicell System is that it can be expanded and configured to grow as the hospital's needs change over time."



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