I spent the last 20 years of my career in management of long term care pharmacies, which altogether serviced more than 30,000 skilled, intermediate care, assisted living, jail and group home beds. These pharmacies pioneered the use of technology to improve the accuracy, security, and accountability of medications dispensed into the facilities they serviced.

One of the major problems I saw during those years was the use of a manual “tackle box” type system to keep emergency or contingency drug supplies in long term care facilities. These drug supplies were kept in a locked tackle box or cabinet and the key was under the control of a charge nurse. In general, when a dose was needed, the nurse would open the box, remove the needed medication and fill out a charge slip which was to be completed and sent to the pharmacy for billing and replacement.

“ These systems can become a ready source for diversion of drugs, particularly controlled substances.”

Missed Billing, Missing Doses, And Diversion Challenges

These systems can cause a host of problems for the pharmacy and the facility. The first is security. Once a box or cabinet is opened, there is no way to verify what is actually removed since everything in the system is available. There is no way to determine when the system was opened. There is no way to absolutely identify who opened it. As a result, these systems can become a ready source for diversion of drugs, particularly controlled substances. This may create regulatory problems for the pharmacy and the facility.

The other major problem is accountability. Sometimes a nurse in a hurry will neglect to complete the reorder slip. The slip could get lost en route to the pharmacy or be inadvertently thrown away. The result is a missing dose that may go unnoticed until the next pharmacy audit or when the next dose is needed and not available. Although most of these problems were inadvertent, they often caused bad feelings between the facilities and pharmacy.

The final problem is the cost to reconcile these manual systems. I cannot begin to count the amount of time my consultant pharmacists lost as they went through patient charts, attempting to find the patient who may have received the missing dose. The facilities also incurred cost for their nurses working with the pharmacists to account for missing doses.

The Solution
The pharmacies I managed began to utilize technology to solve these problems. We installed automated systems in our larger and higher acuity facilities. Technology gave us much better control of the emergency and contingency drug supplies in these facilities. Systems have been improved over the years and offer better security and accountability.

There are many automated systems available today. The most important features are:

- Positive identification of anyone entering the system. The system should require both a user ID/password and also biometric ID such as a fingerprint to access the system. There is no doubt then who entered the system.
- A two-way communication link that permits monitoring of the system in real time by the pharmacy. It should give alarms when unauthorized access is attempted.
- Granting facility nurses selective access to controlled substance and legend areas of the system.
- Real-time inventory maintained at the pharmacy.
- Internal checks such as blind counts that alert the pharmacy immediately of discrepancies.
- Expiration date tracking for all medications.

There is a significant cost to utilize an automated system. Some of this will be offset by reducing lost billing for missing doses and staff time wasted trying to reconcile manual systems. But speaking from experience, I know that security and accountability absolutely have value, and the investment in automated systems does pay off.

"Technology gave us much better control of the emergency and contingency drug supplies in these facilities."

Joseph R Sabino, MS, RPh, LLC
LTCRx Solutions
Columbus, OH