

Develop an Effective Unit Dose Packaging Strategy

By Mark T. Edgerly, RPh

The effort to deliver all medications to the nursing units in bar coded unit of use typically requires a combination of approaches, including purchasing medications in unit of use, repackaging medications in-house, or utilizing the services of a contracted repackaging service.

Elmira Psychiatric Center, part of the New York State Office of Mental Health, is a 65-bed facility serving the mental health needs of children and adults. The center's pharmacy operates from 8AM to 4:30PM, Monday through Friday. Electronic medical records and bar code scanning are employed to ensure medication safety. Most medications are purchased in bar coded unit of use, but due to availability issues, achieving the goal of purchasing 100% of medications in unit of use remains elusive. Our organization utilizes both an oral solid and a liquid repackaging machine to repack and bar code these drugs. In addition, some medications are repackaged by a contracted repackaging service.

Repackaging Strategy

A number of options are considered to determine our purchasing approach. We review medication bioequivalence, contract pricing, and the overall cost of goods to settle on the best procurement option, be it purchasing unit of use through our wholesaler, repackaging a medication in-house, or sending it to our contracted repackaging service. It is also important to factor in when the product is needed, packaging requirements, and staffing considerations.

The Elmira Psychiatric Center pharmacy repackages approximately 5 to 10 medications each week. In-house repackaging activities are performed by a technician and checked by a pharmacist. Our repackaging machines include an online service that continually updates the software to reflect new products brought to market, ensuring that all bar code labels are current. Because the number of bar codes is constantly increasing, repackaging technology must keep up with this expansion. The few medications that are too large for the machine are repacked by the contracted repackaging service.

Importance of Bar Coding

Bar coding plays an important role in medication safety and is a helpful tool to ensure that medication is dispensed and administered properly. Bar code accuracy is improved when a standard workflow is observed and a system of checks and balances is in place. All medications that are dispensed by our pharmacy are bar coded and scanned by a nurse prior to administration, which helps verify that patients receive the correct medications.

Choosing a Repackaging Machine Vendor

A thorough evaluation of the available repackaging machines is required to identify which unit best suits a facility's workflow. The repackaging machines we selected are robust and built to last, able to handle years of daily use. In addition, they have a small footprint, which is critical when space is limited. Malfunctions are rare, and the machines require limited

maintenance. We clean the repackaging machines before and after each use, and maintenance is typically performed in-house on a monthly basis (or as needed) with the assistance of our maintenance department.

When a question arises, our vendor's customer support department is able to address the issue in a timely manner, usually with a single phone call; their customer service, resourcefulness, and product knowledge are excellent. They also consistently follow up with a phone call or email later to verify that the machines continue to function as anticipated.

Staff Training and Competency

Repackaging requires accuracy and attention to detail to prevent mistakes that can result in a patient receiving the wrong medication. Therefore, each pharmacy staff member receives hands-on repackaging training. Training all staff members ensures pharmacy can proactively provide medications to the units as needed.

After a software update, our vendor visits the facility to retrain staff. The system is user friendly, and we have experienced little challenge in learning how to use the machines correctly. The competency of each technician and pharmacist is evaluated every 6 months through visual observation of their technique.

Benefits Realized

As organizational needs differ, each facility must devise a repackaging strategy that meets its specific requirements. Having the right equipment is critical to ensuring a safe, effective repackaging process.

Repackaging medications in-house that are not available for purchase in bar coded unit dose has provided numerous benefits. Bar code scanning and customized labeling promote medication safety, and proper staff training ensures fast turnaround times. In addition, in-house repackaging has proven cost effective. ■



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SYSTEMS SCOOP

Elmira Psychiatric Center's unit dose strategy utilizes the following vendors:

- ▶ **Tabletop Unit Dose Packaging Machine:** Medical Packaging Inc's Pak-EDGE software with the Auto-Print Unit Dose System
- ▶ **Liquid Unit Dose Packaging Machine:** Medical Packaging Inc's Fluidose Liquid Repackaging Machine
- ▶ **Outsourced Repackaging Services:** Safecor Health