PACKAGING SUCCESS
How prepackaged unit dose medications increase safety and efficiency for America’s hospitals while lowering risk and costs

The prepackaged solution

What is the most effective way to package medications in unit dose?
That is the critical decision facing the pharmacies of hospitals and health systems across the country today. There are three options:

1. Purchase oral solid drugs in bulk and repackage them in unit dose in-house.
2. Outsource the repackaging to a third-party company.
3. Buy the medications prepackaged in unit dose from an industry supplier.

On the surface, in-house repackaging may seem to be the most cost-effective approach. But it requires several costly investments beyond medication supplies alone, including equipment and labor. There are also potential issues of medication safety, as hospital staff members are redirected away from patient care to operate packaging equipment and manually enter complex data—sometimes in a rush. That opens the door to human error and potentially putting the healthcare organization, clinicians and patients at risk.

Outsourcing the repackaging to a third party has several disadvantages as well. To begin with, the logistics of managing the outsourcing company can be substantial and time-consuming. With labor resources already stretched thin, hospitals and health systems may choose to avoid the added burden. Then, there are potential cost issues to consider, such as shipping charges and upcharges for special packaging materials.

With growing concerns to improve patient safety while lowering costs, many hospitals are choosing the third option: relying on their medication suppliers to provide drugs prepackaged in unit dose so hospitals can improve business operations, while staff members devote more time to patient care.

Indeed, there are four main advantages to buying prepackaged unit dose medications: improving safety, pharmacy efficiency, liability management and cost savings.

How does unit dose prepackaging improve patient care and lower costs at the same time? Here’s a closer look at the experience of four healthcare organizations that prefer prepackaged unit dose—including two metropolitan medical centers, a major university medical center and the business and operational services provider of the nation’s leading, for-profit hospital company. While their organizations look very different, they all share a common goal: to ensure the right patient receives the right medication at the right time—and ultimately, at the right cost.

The Four Advantages of Unit Dose Packaging

1. Improving safety
2. Pharmacy efficiency
3. Liability management
4. Cost savings
**Improving safety**

“Medication safety has become a huge issue in recent years,” said Bell Hoy, Purchasing Manager for The Ohio State University Wexner Medical Center. “If medication packaging all looks the same on the shelf, it’s difficult to differentiate.” By buying prepackaged unit dose medications, the medical center overcomes this obstacle. Accurate barcoding, clearly marked doses, tall man lettering and color coding all help clinicians clearly identify drugs and ensure they’re administered correctly. “We eliminate the potential for human error,” he said.

Crystal Franklin agrees. As the Pharmacy Inventory and Purchasing Analyst for Parallon, she manages pharmaceutical purchasing for her parent company, Hospital Corporation of America (HCA). She explained that—while safety has always been a key concern in hospitals—it is now a national public issue and critical to accreditation.

“You really shouldn’t risk packaging in-house, if you don’t have to,” she said. “With American Health Packaging, you’re putting your trust in experts who know what to do—because that’s all they do every day.”

At American Health Packaging (AHP), unit dose is packaged under current Good Manufacturing Practices (cGMP) in a regulated and safe environment operated by full-time packaging professionals whose sole focus is to ensure accuracy and safe handling.

> No need to take time away from patient care to package medications in-house

> Less product handling

> Prepackaged unit doses fit easily into automated dispensing machines (ADMs)

> Packages are pre-barcoded: nurses can just ‘grab them and go’

> Medications are more readily available for patient care

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Crystal Franklin  
Purchasing Analyst  
Parallon, a subsidiary of Hospital Corporation of America (HCA)

“If we’re packaging on-site, barcodes are entered manually every time, which can lead to errors,” said Theresa Ortega, Pharmacy Buyer at Sunrise Hospital and Medical Center in Las Vegas, Nevada. “Plus, our staff has other responsibilities, which can lead to hurrying if we do it in-house. There’s quality assurance when we use AHP.”

**Improving pharmacy efficiency**

Providing timely medications to patients is a key concern of all four healthcare organizations cited in this study. At Sunrise Hospital and Medical Center, increasing efficiency is critical to patient care. “If we do the packaging in-house and no one is available to do the work, that could delay treatment,” Ortega said. “If everything were prepackaged in unit dose form, it would make life a lot easier.”

Unit dose prepackaging increases both nurse and patient satisfaction as well. “They know medications will more consistently be available when they’re needed,” Franklin added.

Then, there is the business operations case for buying prepackaged medications whenever possible. “For those drugs that we need to package ourselves because unit dose from our supplier isn’t available, the staffing time is significant,” Hoy said. “We would rather not have to do it on our own.”

And finally, unit dose prepackaging increases efficiency at the point of care itself.

“I prefer AHP’s blister packaging,” said Ted Russo, Pharmacy Buyer for HonorHealth Scottsdale Shea Medical Center in Scottsdale, Arizona. “Our in-house packaging equipment produces a floppy plastic package that can cause issues with our automated dispensing machines. The floppy packaging also wreaks havoc when counting inventory.”

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Theresa Ortega  
Pharmacy Buyer  
Sunrise Hospital and Medical Center  
Las Vegas, Nevada
Improving liability management

Hospitals and health systems generally lack the quality systems and process controls that prepackaging companies have. And that could result in medication errors that put the hospital, clinicians and patients at risk. Purchasing prepackaged unit dose medications from a highly regulated, cGMP compliant company such as AHP can help mitigate this risk.

“Meeting cGMP standards are table stakes. Look for a vendor with a strong reputation, proven quality assurance and that listens to end-users. Open, person-to-person dialogue is vital, but it’s becoming a lost art in the electronic age. Not so at American Health Packaging.”

Bell Hoy
Purchasing Manager
The Ohio State University
Wexner Medical Center

“Liability management is high on our list,” Franklin said. “When you’re short-staffed and rushing to get medications packaged in-house, there could be errors. It’s better to work with a company whose sole focus is unit dose prepackaging and can dedicate the right staff, equipment and inventory to meet our needs.”

Franklin sees another benefit as well: giving clinicians more time to focus on patient care. “As the pharmacy becomes more clinically-oriented, unit dose prepackaging frees up pharmacists to spend more time on the floors assisting with patient care and functioning at the top of their education levels. The cost is a small blip in an overall pharmacy budget, compared to the impact it has on ensuring patient safety.”

Hoy sums up the total value this way: “We would rather not package medications on our own. Unit dose pre-packaging is more efficient, removes the potential for human error and lowers our risk by 30% to 40%, helping ensure the right dose is given to the right patient. We know with AHP that the quality is there.”

Improving costs savings

When analyzing the financial impact of buying prepackaged unit dose medications, all four healthcare organizations recognize the need to consider the ‘hidden’ costs of packaging in-house. According to Franklin, “It can be exorbitant, when you factor in labor, equipment, maintenance agreements and supplies. Because of AHP’s scale, the costs are reasonable. There’s no comparison.”

For Russo at HonorHealth Scottsdale Shea Medical Center, the economics of buying prepackaged unit dose medications just make sense. “With my in-house unit dose packaging equipment and labor, I have a fixed cost of $48 per 100 units. If I can buy at or under that threshold from AHP, I will. And 90% of the time, I can.”

For the other 10% of medications, Russo has some “wiggle room.” For example, he’ll buy prepackaged unit dose narcotics regardless of the price.

At Parallon, Franklin uses a threshold range of 20 cents to one dollar per unit, based on the drug. The lower end of the threshold applies to simple medications, such as brand-name acetaminophen. The higher end works in a variety of circumstances, including:

• High-utilization drugs that would require a substantial investment in labor and equipment if packaged in-house.
• Specialty items—such as chemotherapy drugs—that require special handling.
• Drugs that don’t have multiple suppliers prepackaging them.

“We don’t solely look at price,” Franklin said. Most drugs that Parallon buys prepackaged fall into a range of 20 to 50 cents per unit.

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Ted Russo
Pharmacy Buyer
HonorHealth Scottsdale
Shea Medical Center
Scottsdale, Arizona

There are other cost benefits to prepackaged unit dose beyond the drug price alone. “When we package medications in-house and they expire, we have no way to return them,” Russo said. “We own the drugs we package ourselves, regardless of whether they’re used. By purchasing prepackaged unit dose medications, we avoid this costly problem and have an easy means to return expired drugs.”

Russo also explained that the medical center can’t track or quantify utilization for reimbursements, if they package themselves. “We would need to inventory empty bottles and dedicate an FTE to manage them,” he said.

Another cost savings benefit is related to expiration. “If we buy prepackaged unit dose medications, the expiration date
Could be over a year, which is perfect for slow-moving items,” Ortega said. “If we package in-house, our bulk medications will expire in under a year, and there’s no way to return them.”

While cost savings are key, there’s a larger benefit to choosing unit dose prepackaging. “It’s true that healthcare is a business, but our patients could be members of our own family,” Franklin said. “You can’t put a price on safety. We need to have it by any means necessary.”

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