

One Singular Sensation

FOR CHILDREN AND GERIATRIC PATIENTS WHO HAVE TROUBLE SWALLOWING TABLETS AND CAPSULES, LIQUID UNIT-DOSING CAN BE A LIFESAVING OPTION.

US hospitals plagued by roughly 100,000 annual deaths from medication errors consider liquid unit-dosing optional; soon, it will be mandatory. New unit-of-use requirements are being drafted by both FDA and the Joint Commission on Accreditation of Healthcare Organizations (JCAHO). The new standards are part of the larger movement toward reducing medication errors in hospitals. In addition to unit-of-use, the new standards will address drug barcode labeling, expiration dates and lot numbers.

Recognizing the upcoming mandate and pediatric and geriatric patient needs, Lyne Laboratories, a contract manufacturer specializing in oral liquid pharmaceuticals, has developed a new PET (polyethylene terephthalate) cup for unit-dose liquid pharmaceuticals. An industry first, this cup offers significant advantages beyond aluminum cups and high-density polyethylene cups that include a vapor transmission barrier, light resistance and an aluminum lid for stability.

"PET cups offer a new drug delivery option for pharmaceutical companies interested in increasing their presence in hospitals," says Stephen C. Tarallo, president and CEO of Lyne Laboratories in Brockton, MA. "The cup opens up a new drug delivery option, and is a fore-runner of future industry actions in the area of medication error." Lyne is making PET cups available to customers either as a re-packaging option for supplied materials or as part of a comprehensive contract manufacturing process.

"Unit-dose packaging, overall, is one of the best ways to ensure that the medications administered to the patient are exactly what was intended by the doctor, pharmacist and nurse," says Tarallo. "In terms of liquids specifically, unit-dosing is not only more accurate, but it's more acceptable to many patients. For a medicine to be effective, you have to take it. For certain patient populations, a liquid unit-dose option leads to better compliance."



Patient compliance was the hot topic at last year's Pharmaceutical Marketing Congress in Philadelphia. Data presented indicated that many patients do not comply with medication regimens. Also, most therapeutic classes show poor persistence rates, meaning patients are not getting prescriptions refilled when they should. As a result, healthcare costs are on the rise. The correlation? Patients who don't take their medicines as directed wind up in the hospital.

The packaging industry is addressing the issue of improved compliance with unit-dose packages. "We can deliver a cure in a package that patients like," says Jeff Robb, vice president of marketing at MeadWestvaco Global Healthcare Packaging, a packaging producer in Mebane, NC. The company's Surepak blister pack was designed with this issue in mind. "Industry has awakened to the fact that unit dosage improves patient compliance and ultimately lowers healthcare costs."

Cost is definitely an issue when pharmaceutical companies consider installing unit-dose production lines. "The US healthcare industry has been tooled for bottle production, so companies are not quick to invest in unit-dosage lines," says Robb. "But industry is shifting to more unit-dose packaging. We will see continued growth in blister packaging lines. While healthcare companies change manufacturing and filling lines, contract packagers with blister packaging capabilities are being used for product launches and relaunches."

Robb adds that the benefits of unit-dose packaging far outweigh any perceived hurdles. With unit-dose packaging, vital drug and dosing information is attached directly to the medication, and "when a drug is in a blister pack, patients can see easily if the package has been tampered with, what day the last dose was taken, how many pills have been taken and how many are left," says Robb. "Blister packaging can also protect the product and the brand. Consider Zithromax. Doctors write 'Z-pack' (a carded blister pack) on a prescription rather than writing the name of the drug." This has taken the brand to a new level.

Lyne Laboratories
Brockton, MA
800-525-0450
www.lyne.com

MeadWestvaco Corp.
Stamford, CT
203-461-7400
www.meadwestvaco.com