Tabletop Unit Dose Packaging Machines: An Efficient Repackaging Solution

In pharmacy’s quest to lower costs, promote the most efficient processes, and improve patient safety, how to best handle the repackaging of medications is a salient concern. Pharmacies that need bar coded unit dose medications have a few options available to them, and for many pharmacies, tabletop unit dose packaging machines have proven to be a cost effective, reliable, and efficient solution. These relatively easy to use machines require minimal mechanical oversight and can produce 60 to 120 packages in 5-10 minutes, depending on manufacturer and model.

Saint Barnabas Medical Center in Livingston, New Jersey, is the state’s oldest and largest nonprofit, nonsectarian hospital. As a 601-bed hospital, we provide services to over 40,000 inpatients, more than 80,000 emergency department patients, and over 300,000 outpatient visits annually. Around 80% of the drugs that we use come commercially bar coded; the rest of the oral medications we use require repackaging—all of which we do in house. Currently we have over 600 medications that we repack. Of that amount, the bulk is oral solid medications, and we repack on average 10-15 oral solid medications on any given day, although there are days when we repack many more. We chose a tabletop repackaging system instead of a high-speed repacking system or an outsourced vendor because, for us, the large amount of commercially available product didn’t justify a more extensive investment.

The Repackaging Process

We choose the drugs we will repack based on usage, and our purchasers know what medications are fast movers and those that are not often used. As an example, we use Lactobacillus frequently, so we purchase that in bulk and repack it ourselves. At our hospital, the repackaging process starts in receiving, where a staff member checks the medication bins for inventory and scans what medications are low. When starting a packaging run, the technician brings the bulk bottle to the pharmacy’s designated packaging area where all the repackaging and bar coding equipment is located. In order to avoid inadvertent mix-ups between drug products, it is advisable to bring only one product into the packaging area at a time. The technician either scans the bulk bottle’s bar code or manually selects the drug to be packaged from a menu in the packaging machine’s software. The technician is then responsible for entering the bulk bottle’s lot number and expiration date, as well as the quantity of doses to be packaged. When it comes to bulk bottles of the same drug that have different expiration dates or lot numbers, we repackage these drugs separately from each other, making sure to only package drugs with corresponding lot numbers and expiration dates in the same run. In order to double-check the packaging run for accuracy, a technician or pharmacist does a drug pre-check, whereas post-checks are performed only by a pharmacist.

Conclusion

Tabletop unit dose packaging machines are mechanically reliable devices that can aid pharmacies in efficiently packaging medications in bar coded unit dose. When you consider that we can now repack and shelve a whole bulk bottle of pills in the same amount of time it takes to manually package one or two pills, the efficiency and increased patient safety gained are well worth the initial cost.

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