
Automated Counting and Workflow for the Growing Pharmacy

by Will Lockwood

There's a lot going on at Elwyn Pharmacy in Elwyn, Pa. Pharmacist Nick Karalis and his brother Jim run a pharmacy that offers a complete retail front store, three in-store flu clinics a year that vaccinate over 700 people, diabetes screening and educational programs, and ostomy in-services. Nick and Jim may already sound busy, but Elwyn Pharmacy also services over 1,800 long-term care (LTC) beds in nine long-term care facilities and eight group homes with an array of medication packaging, medication administration records, physician orders, emergency boxes, and consulting pharmacists. And then there's the full-line HME business, which is Accreditation Commission for Health Care (ACHC) accredited and Medicare approved and offers surgical supplies, ostomy care, and specialty wound care products, and has certified orthopedic and mastectomy fitters on staff. All this happens in a store that measures 3,500 square feet, 875 of which is dedicated to the retail and LTC pharmacies that fill over 4,200 prescriptions a week.



Nick and Jim Karalis are betting technology will allow them to sustain their service and grow at the same time.

The Technology Answer

What you may have guessed already is that Nick and Jim have looked to technology to help them keep everything going. In addition to a new, integrated point-of-sale system for the front-store items, a high-speed Internet connection and local network, and digital video surveillance with remote viewing capability, they now have Innovation Associate's PharmASSIST Symphony Plus system, with two 100-dispenser PharmASSIST cabinets. This has brought a new workflow and greater dispensing efficiency to Elwyn, something Nick and Jim needed to help their three full-time pharmacists meet a projected

30% growth rate and still have time to spend with patients, a personal touch that Elwyn is well-known for locally.

Positive Changes

Adding the PharmASSIST Symphony Plus has meant changes both in the pharmacy layout and in workflow. First, given the size of the pharmacy, fitting the cabinets in was an important consideration. Nick and Jim were able to work with Innovation to station both cabinets just a step or two behind the Symphony Plus screen, which sits in the center of the small dispensing bench and is flanked on either side by terminals for Elwyn's HBS pharmacy management system. Installing workflow and counting automation has meant that what used to be two separate filling stations at either end of the counter has turned into one filling team along the length of the counter. Changes in workflow have also made job descriptions more specific. For example, says Nick, one technician focuses on data entry, and one pharmacist on verification. "If you are on verification, you might fill one or two prescriptions a day," he says. The

specificity built into the workflow means that staff can focus on the task at hand. "The amazing thing is that on our small retail counter we can fill 600 to 700 prescriptions on a given day," says Nick. "And we do this efficiently, in a timely fashion, and accurately." Not only is the system efficient, but it is flexible as well. Nick points out that he and his pharmacists can take a prescription from a walk-in patient and fill it within 10 to 15 minutes without disrupting the overall prescription processing flow.

Counting on Automation

Nick keeps the pharmacy's top 100 movers in the PharmASSIST cabinets, though he does take package size into consideration. "If the package size is 60 and the usual dispensed amount is 60, it stays out of cabinets even if it is a fast mover," he says. He also doubles up dispensers when the pills are large to reduce the amount of time spent replenishing, even though this duty can be completed while the system continues to run. Another boon to efficiency, in Nick's opinion, is that the PharmASSIST technology allows more than one dispenser to count at a time.

Precision Through Bar Codes

Bar-coding is another great benefit that the Symphony Plus suite has brought. Nick didn't use scanning before, but he says he loves it now. "Bar-code scanning assures that all three pharmacists feel comfortable that the right product is in the right bottle and has been checked as thoroughly as possible," he says. Not only is it a great safety feature, but it increases accountability as well. Nick can track precisely where a prescription is in the dispensing process, including when it was filled, scanned, verified, and put into will-call. Bar-code scanning also allows him to identify each person who handled a prescription along

the way. This is particularly important, since Elwyn Pharmacy makes over 100 deliveries a day using three different drivers. Scanning means that Nick and Jim know which truck a prescription went out on. The combination of counting speed and bar-code accuracy have allowed Nick and Jim to free up staff from the retail side, which now uses only three people for the standard workload, and reassign them to the LTC work, which is more labor intensive.

Gaining Customers

Having all this efficiency is important because of the tremendous opportunities for growth that Nick and Jim see across the prescription business. On the LTC side, customers are lined up to come on board next year, including a 180-bed facility that is scheduled for the first quarter of 2006. The main concern, according to Nick, is to make sure Elwyn can maintain the service level that is bringing in this new business without a marketing team. "Our business comes from referrals and people calling us," says Nick. "I guess that means we're doing something right."

Maintaining Service

Part of the solution to maintaining the high standard of service in the face of such growth will come from better applying the workflow benefits of the Symphony Plus suite to the LTC filling operations. For example, Nick is currently in the process of working with Innovation to enhance the Symphony Plus software to help with his cycle fill. Since Elwyn serves approximately 800 patients with this program, Nick and his staff have to work ahead in filling, labeling, and checking the orders throughout the month before delivery. The high volume means that it isn't practical to produce each card's prescription label as it is being filled. The way Elwyn is currently handling cycle fill, the staff has to handwrite the patient

name and drug on each filled punch card. When the prescription labels are printed later, the staff then has to match each label to the correct card before final verification by a pharmacist. Nick is working with Innovation to develop a new process that will work from a scan of the bulk drug container to produce a bar-coded label for the punch cards that includes the drug information and patient name. Next, when the prescription labels are printed in the pharmacy, another round of scanning matches the right card with the right label. Then, at the final check, the pharmacist will scan the prescription label, and the Symphony Plus software will display the prescription and product description, including pill image, for verification. According to Nick, this application of bar-code technology to cycle filling is something that not even the bigger LTC providers can do right now. Elwyn and Innovation should have this ready in a month or so. "We actually already have all the pieces available," says Nick. "It has just been a matter of showing Innovation what we like about the system and saying 'Let's apply this better in LTC.'"

Right on to Robotics

Workflow and counting have worked out so well at Elwyn that Nick and Jim are already drawing up a floor plan to fit a robot into the pharmacy. It may sound like they're getting ahead of themselves, since they just started with automated counting. But the key to their strategy is that the two Innovation products are modular, meaning that the same dispensers that are in the PharmASSIST cabinets will go into the robot. "They'll slide right in," says Nick. "Both use the same technology, and all we'll have to get rid of is the aluminum cabinet that holds the dispensers in the cabinet configuration." The robot's speed, which, according to Nick, comes

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from being able to count from multiple dispensers simultaneously, and ability to produce prescriptions that are filled, labeled, and capped are both very appealing.

Looking Ahead

“We’re envisioning that if we keep the same number of employees, the technology will allow us to sustain our service and grow at the same time,” says Nick. He and Jim are always looking for ways to reduce stress in the pharmacy and free up time to go out and talk to patients. Facilities, doctors, and patients all appreciate the access they have to Elwyn Pharmacy’s staff, explains Nick, particularly the assisted-living patients who phone in orders not only for prescriptions but also for OTC and sundry items as well. The goal is to provide everyone with the highest degree of attention possible, and the PharmASSIST Symphony Plus suite has been a big help positioning Elwyn Pharmacy for a bright future. **CT**

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