Shining a Beacon of Light Through the Chaos

Fairview Pharmacy, in Bloomington, Minn., is part of an eight-hospital health system. When management began searching for ways to decrease inventory cost, increase prescription-filling capacity without adding staff, and reduce the pharmacy's footprint in order to maximize their OTC area, they knew they'd have plenty of vendors to consider.

Site manager Laurie Deegan says after seeing one company's innovative solution at a trade show, and then making a visit to the system's initial installation site, management was pretty sure they'd found what they were looking for. A little more than a year later, Deegan thinks they made the right choice for her pharmacy.

Key Benefits

Laurie Deegan sums up the top features of the Beacon system:

- The system runs smoothly and allows staff to operate with efficiency.

- A much more manageable workflow process and less stressful environment is created.

- The pharmacist verification process is fast and easy, allowing staff to increase time spent counseling patients.

- Any pharmacy staffer can easily determine the status of a prescription and see how long it will take for the order to be ready.

- Complete transactional history for each prescription is recorded, including who counted it, who verified it, and who hung it in will-call.

The Solution

Fairview chose the Beacon Inventory Management System from Parata. The Beacon system is a combination of physical fixtures and automation that provides tight control over the prescription-filling and inventory management processes. Beacon's hardware and software dovetail with the pharmacy management system (PMS) to create a structured, consistent workflow. The system features unique "pick and put to light" technology that uses color-coded LEDs to ensure staff always identify the right product, whether they're retrieving something for a fill or putting something away after filling or receiving an order.

Organized by activity, directed by light, and verified by barcode is the Beacon mantra. "The system has

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improved accuracy, increased efficiency, and enhanced our ability to effectively manage our inventory," reports Deegan.

As site manager at the 250-script-per day clinic-based retail pharmacy, Deegan's responsible for all pharmacy operations, including budget, inventory, staff scheduling, and supervision. She also spends plenty of time in front of customers as the store's only full-time pharmacist. There are also two part-time pharmacists, a weekend pharmacist, two full-time technicians, three half-time techs, and one full-time clerk/cashier.

Building on a Strength

Deegan says she and her staff have always been inventory control focused, so when she heard they were considering a system like Beacon, she saw it as an opportunity to enhance what they were already doing well.

"We were excited about the chance to implement a system that tracks inventory down to the pill level," Deegan says, "and the system has met our requirements in this area since we installed it."

Before implementing Beacon, Deegan says, they had little technology in the pharmacy other than a legacy PMS that was in place before she arrived five years ago. They've since decided to move to McKesson's EnterpriseRx — a hosted, software-as-a-service PMS, which they plan to implement system-wide beginning this fall. Parata developed a Beacon interface to Fairview's current PMS, and they're on track to deliver an EnterpriseRx interface by the time they migrate to that system.

Installing Beacon

Deegan says when they installed the Beacon system, they "pretty much gutted" the pharmacy. The pharmacy front counter was left intact, but almost everything behind it — shelves, bays, even the pharmacist's work island — was removed. Those fixtures were replaced by

a tall carousel for medications in unit-of-use packaging; a corner unit workstation that stores faster-moving product; two large sets of high-density drawers that contain slower-moving inventory; shelving for items that don't fit easily elsewhere; and racks for the will call area. The pharmacist work area was also redesigned.

In addition to the new fixtures, five Beacon workstations were installed. Each workstation includes a touchscreen display with keyboard and a cordless scanner. Most workstations have been set up to toggle between Beacon and the PMS. Scanners are color coded to identify the staff member using them. Colors are used extensively throughout the Beacon system to tie tasks to the staff member performing them. For example, if two technicians have simultaneous prescriptions to count, the location LED lights up in each technician's assigned color, making it easy for each technician to know where to pull product from.

The amazing part is that all the removal and installation was done during a single weekend in August 2009. The Beacon fixtures are small and modular, Deegan says, so they were easily brought in through the back door and installed by Parata technicians, who also set up the computer hardware and software.

"The entire process took about 18 hours," Deegan says.

Pharmacist Amy Hagbom scans a prescription during customer pickup.

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Although the physical transformation of the pharmacy was rapid, it did take a little time for staff from both companies to put all the inventory into the storage system following the system's logic that locates product based on how often it's needed — information contained in product movement reports Fairview provided to Parata in advance. During this transition period, pharmacy staff filled prescriptions from stock bottles that were in totes or on temporary shelving.

Because they chose to leave their front counter in place, Fairview didn't realize the reduction in pharmacy size they had hoped for. However, Deegan says that the staff has much more room now to do its job, and that's greatly improved efficiency and staff morale.

"We're not tripping over ourselves to get our jobs done anymore," Deegan says. "And while we didn't experience the footprint reduction we envisioned, the process has showed us that for future pharmacies we can achieve the same volume in less space."

The Workflow Process

Even after installing Beacon, Deegan says, Fairview Pharmacy's filling process begins as it always has: with a technician entering a prescription order into the PMS. Data is passed to the Beacon system when a label is printed for an active prescription. The labels are put into bags that will eventually contain filled prescriptions. Bags are handed off to a technician who scans a barcoded prescription number on the receipt. That prescription then appears in the Beacon system with a "ready to dispense" status. The system display tells the technician the location of the product to be dispensed, and an LED adjacent to that product's physical location activates. Numeric displays on pharmacy shelving guide the technician to the correct row and slot location within the Beacon storage system. The technician must scan the barcoded NDC number on the correct product to continue. If the wrong product is scanned, the LED flashes and the filling process comes to a halt. Deegan says this feature has improved filling accuracy.

"The system basically won't let you pick and count the wrong product," she says. "Most of the errors we catch now are data entry errors."

After counting, the product is returned to the shelf and the technician scans a barcode at the location to indicate the fill is complete. A color-coded LED again verifies that the product has been returned to the correct location.

A pharmacist then takes the bag and scans the barcode on the receipt to begin verification. Along with other essential information, an image of the product is displayed, which Deegan says greatly simplifies the quality assurance process.

"You don't have all those stock bottles traveling with you down the line, which can easily get misplaced," she says.

At Fairview Pharmacy, pharmacist verification still includes a review of the prescription hard copy, even though Beacon can provide a digital image of the script as part of its QA process. Deegan says this is because they plan to use that feature in the new EnterpriseRx system when it's installed.

When verification is complete, the pharmacist scans the barcode on the bag, indicating the prescription is ready for customer pickup. Multiple prescriptions for the same patient can be assigned to the same bag. The clerk then scans the barcode on the bag, selects an open location in the will-call area, scans the barcode associated with that location, and places the bag on the appropriate hook.

Deegan says the system has the ability to suggest a location and activate an LED identifying that location for the clerk, but she says they don't use that feature.

"It's easier for us to select the location from what's available than to wait for the system to tell us where to put the bag," she says.

The system then confirms that the bag was successfully placed and the location is recorded.

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Prescription Pickup

Deegan says she also likes how the Beacon system manages the patient pickup process.

"The clerk can do partial entry of first or last names, and that makes identifying customers easy when they come in to pick up their prescriptions," she says.

Laurie Deegan consults with a patient. The Beacon System lets Deegan and her staff identify the slowest-moving inventory and remove it from stock.

When the correct prescriptions are selected, the Beacon system displays the bag location for the clerk and an LED lights next to that location — or locations if there are multiple bags — making it easy for the clerk to find the right bag and virtually impossible to select the wrong one.

"We really like how the system makes sure customers leave the pharmacy with all the prescriptions that are ready for them," Deegan says. "It even helps us make sure we give patients the few pills we may owe them if we ran short on a previous fill."

Fairview also uses Beacon's optional vial shredder and is working with a vial manufacturer to recycle what they collect. Deegan points out that not only is vial shredding environmentally friendly, it's a great way to protect their patients' confidential information. She plans to work with Fairview's marketing department to promote the value of this service to customers.

"If more customers knew we did this, I think it would really increase repeat business," she says.

Seeing Results

Despite the focus Deegan's staff has always placed on inventory control, she's pleased with the positive impact the system's had in this area. Before Beacon, Deegan's pharmacy was turning its inventory 10 to 12 times per year. They're turning it 16 to 17 times per year now, while most other Fairview sites average 6 to 8 turns per year.

Deegan couldn't provide exact figures, but she says she's sure her overall inventory cost has decreased as well, since installing the system. In fact, Deegan and her staff have eliminated enough slow-movers from their stock so that one entire set of high-density drawers is now empty. This reflects how effectively Beacon helps them manage their inventory, Deegan says.

"All I have to do is look at the empty shelving in the high density drawers to know we're carrying much less product than we were," she says.

Deegan says the system's done such a good job helping reduce inventory that they're thinking about removing the bay of empty shelving and replacing it with Parata's automatic vial filler. This device would enable automated simultaneous counting of the pharmacy's 70 top-moving oral solids.

"We're still working through the cost justification," Deegan says, "but from what I've seen so far I believe the productivity increase would more than offset the cost."

And while the accuracy hasn't been measured statistically, Deegan says there's no doubt they have fewer wrong drug picks than before.

Deegan also believes prescriptions move more quickly through the filling process than they did before. The defined workflow process allows each staff member to stick to the tasks they're supposed to perform, and the smarter layout means there's less running around in the pharmacy.

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Were there any unexpected results? "Because of the emphasis placed on expiration date tracking," Deegan explains, "it takes us longer now to put product away when we receive orders. For every item we receive, we scan not only the product barcode but the expiration date as well. It's more time-consuming up front, but it's worth it knowing we have a completely automated, up-to-date expiration date tracking system in place."

"We know much earlier in the process if we have product that's getting ready to expire," Deegan says, "which allows us to contact our other pharmacy sites to see if they have a need for that product before we otherwise dispose of it."

The system must be working. Deegan's pharmacy has the lowest outdated-return cost of any site in the Fairview system.

Plans for the Future

Deegan says Fairview plans to install Beacon at its smaller Andover location in December and will most likely install it at other pharmacies in the future.

"The system's very modular," Deegan explains, "so at some locations we may install the entire solution and at others only parts, like only the will-call system, which can easily stand by itself."

About John

After spending over 20 years as a sales and marketing professional in the pharmacy automation industry, John Becker is now an Atlanta based freelance writer. His work appears in the Atlanta Journal-Constitution and other publications. He can be reached at jnbecker@me.com.

Learn More about Parata Beacon

Pharmacists across the country are using Parata technology to help improve patient adherence and outcomes and reduce health care costs. Want to know if Parata Beacon s right for your pharmacy? Contact us today at success@parata.com.