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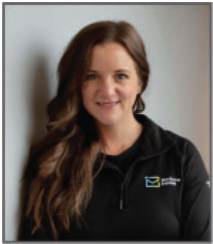
Medicine Express

HOW TECHNOLOGY AND VISUAL VERIFICATION HELPED TRANSFORM MEDICINE EXPRESS'S LONG-TERM CARE BUSINESS

Emily Powers, Pharm D
President
~ *Medicine Express*

THE JOURNEY TOWARD AUTOMATION

When Emily Powers, Pharm. D. took the reins as president in 2018 – Medicine Express, a long-term care pharmacy, was a relatively small operation servicing roughly 300 beds. Their vision, however,was to increase that number to 1,000 beds. In fact, the owner had purchased an automated filling machine just ahead of Emily's arrival to help them move away from their traditional paper-based processes.

Since then, Medicine Express has grown to service 2,700 beds at assisted living and memory care facilities across 14 states and today process 27,000 prescriptions monthly out of its Bellville, Illinois, location. The path, however, was not always a straightforward one, says Emily.

THE CHALLENGE - SCALING TECHNOLOGY TO MATCH GROWTH

With experience working at larger pharmacy operations using advanced technology and computer systems, Emily was well-equipped to help Medicine Express staff adapt to the new automated filling machine. The original automation worked well with their volume at the time, she reports. However, once they reached their growth projections by adding 1,000 more beds in 2019 – they began to experience challenges. "The system just couldn't keep up with our growth," says Emily. Plus, as they added more beds, it became clear they would need an automated visual verification process to reduce the need for pharmacy staff to validate each prescription manually.

"We were happy with our existing vendor, so we upgraded to one of their systems designed to handle the volume," Emily explains. The company also had a visual verification product slotted for release in early 2020 that would give Medicine Express the improved efficiency and medication accuracy they wanted. "That didn't happen because the global pandemic shut down production and development across various industries – including ours."

Despite the pandemic, however, Medicine Express continued to grow — and by the end of 2020 had added another 1,000 beds. "We knew we really needed an established visual verification process to deliver the level of service our patients had come to rely on - so we decided to make a change."
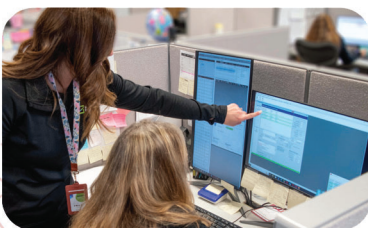
NORITSU
Pharmacy Automation

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THE SOLUTION - PARTNERING WITH NORITSU

While attending an industry conference, Emily met the Noritsu team. "What caught my attention was a case study they had displayed featuring a pharmacy similar to ours – so we started talking." They continued to keep in touch as Emily explored other options. "Let's just say all the research I did and references I spoke with kept pointing to Noritsu being the right choice for us." As a bonus, the company had St. Louis-based technicians less than an hour away.

Ultimately, Medicine Express opted for two NX4000 strip pouch packagers for high-volume dispensing and two Benjamin Tray stations for split-dose, one-off or less frequently used medications. They also have an NV 3 verification system for visual verification, which checks the contents of each pouch against a library of images uploaded by the pharmacy.

Once the system was installed, Noritsu sent a technician out to train pharmacy staff how to export prescriptions to the machine and begin transitioning long-term communities. "He taught us how to keep the system going, the types of service messages we might see and how to clean the machine," says Automation Lead Technician, Carly Thomas. According to Emily, the trickiest part of their implementation was that they weren't ready to transition every community until they were completely comfortable. "I wanted to be sure we knew this one inside and out before we transitioned fully." Some facilities and patients were also not comfortable moving to Noritsu's strip pouches at first anyway because they'd gotten familiar with the traditional blister packs So, in the beginning, the pharmacy had six employees simultaneously operating the two systems – old and new – which made scheduling difficult. "At the end of the day, however, because Noritsu's technology was so user-friendly, and the margins were telling us that it was a well-oiled machine, we were able to transition fully about a month earlier than planned," says Emily.

THE RESULT - ENHANCED EFFICIENCY AND ACCURACY

First and foremost, the NX strip packaging machines deliver an incredibly efficient process, Emily says. Where previously it might have taken hours to run a single community – it now takes about 45 minutes with Noritsu's system and strip pouches. It's also easier for long-term care nurses to make medication changes. "Most of our communities were on a standard 28- or 30-day cycle," she explains. "Noritsu's technology allows us to run shorter cycles for them – and we've successfully converted everyone to a 14-day cycle with no impact to our bottom line." This reduces medication waste when changes are needed, or a medication is discontinued. The strip pouches are also extremely easy to use, which makes them ideal for assisted living or long-term care at home patients who are independent with their medications.

According to Emily, it's Noritsu's NV verifier that's been a game changer for Medicine Express's business model. During implementation, the pharmacy team took several images from various angles of each pill they dispense to record the unique markings, size and color. They now repeat this process with each new medication they offer. "When we run a patient or a community cycle, we feed each strip pouch into the NV," explains Emily. The NV takes a picture of every pouch and can identify what should be inside from the barcode printed on it. The system then references the images of the pills in the pouch with actual images in Medicine Express's library. When that's complete, pharmacists can review computer images of all pouches – including those flagged in red that the NV couldn't verify. "Before Noritsu's visual verification, we had to physically look at every pill in every bubble for every patient to verify that it was correct," says Emily. "Now we only have to look at about 4%, our average pouch check rate." And even with that rate, she says, the issues are usually unrelated to an inaccuracy but have been flagged for things like a broken tablet or an oil-filled pill like Vitamin D that doesn't reflect the light correctly.

Not only is the NV faster and more accurate than relying on a pharmacist's manual checks, but images of pouches are stored so it's easy to go back and review what was delivered if a nurse or patient has a question. "The quality assurance we gain from the NV's visual verification is something I can't imagine doing without now," Emily states.
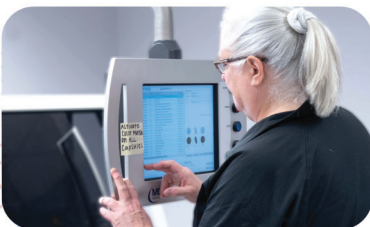
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Carly Thomas
Automation Lead Technician
~ Medicine Express

THE END RESULT - EFFICIENCY AND SCALABILITY

"We knew from our research that Noritsu was the most efficient and cost-effective solution, even before we started working with them," says Emily. Now that they've been using the system for a year, she says it's far exceeded our expectations. "We've reduced labor by 15% and cut production time for multidose cycles by 66%."

Noritsu's automation is so simple to use that anyone can be trained to use it. "We can pull anyone from the pharmacy if we're shorthanded – like someone from my billing team – and teach them how to use the system in a day." The system also gives them a great deal of data for measuring their progress, including how many pouches they're filling each day and for how many patients, what the pouch check rate is and what they spend on supplies.

Even with all the added efficiency and accuracy, Emily and Carly agree that what sets Noritsu apart for them is the customer support. "We just fill in a customer support ticket on line along with the issue's priority," Carly describes. "We normally get a call within 10 minutes!" If a technician visit is necessary, Noritsu gets someone onsite the next day. "What's nice about this system, though, is that it's so user-friendly," Carly continues. "So most of the time, a technician can troubleshoot to help us solve the problem over the phone or FaceTime." As a result, she says they rarely see a technician outside of regular preventative maintenance, and they seldom have downtime anymore. "The people who work at Noritsu are awesome."

LOOKING AHEAD FOR MEDICINE EXPRESS

In the midst of all this, Medicine Express upgraded their software as well. That means over the course of less than five years – they implemented new automation, upgraded that automation again, added a visual verification system, grew from 300 to 2,700 beds and installed a new software platform. And they aren't done yet, Emily says. While they no longer have a retail counter, retail and long-term care at home clients with higher medication needs have been coming to them based on recommendations from existing patients. They've also been exploring working with correctional pharmacies. "Regardless of what's next for us, I know that with Noritsu's automation, visual verification, and support in place, we'll be able to scale and grow at any pace." Added to that, Emily says Medicine Express now has a strong automation team in place with Pharmacist Alex Dow and Certified Pharmacy Technicians, Cody Boswell, Kathy Frazier, and Jody Munyon. Rounding out the team is a family affair – with Emily's sister, Carly, cousin Mikey Crotty, and mom Liz Thomas, who all joined the pharmacy to help during COVID and have stayed on to contribute to its growth.

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