



SWISSLOG HEALTHCARE

UK HealthCare Transforms
Pharmacies into Impactful
Business Units with Automation
Across 50+ Hospitals and Clinics

UK HealthCare encompasses four hospitals, a mental health facility, and dozens of clinics. The system employs 9,000 physicians, nurses, pharmacists and other healthcare professionals focused on providing "the most advanced, most effective care available, not just in Kentucky but anywhere."

The Challenge

With such a large healthcare system, serving 850 patients per day and handling one million clinic visits per year on average, processes aren't just important; they are mission critical. UK HealthCare, like most healthcare facilities, was struggling with manual processes that were slow, inefficient, and error-prone. This would be a challenge in just one single hospital, but multiply it by 50, and you have a serious problem.



Dr. Gary Johnson, Chief of the Pharmacy Office at UK HealthCare, set out with a goal beyond automating processes: His goal was to "get the pharmacy out of the basement," turning it into a profit center and a contributor to patient care. His vision was to make the pharmacy system financially stable, efficient, and effective.

There were plenty of opportunities for cost savings in inventory, labor, and time.

- The pharmacy system was managing 2,000-3,000 drugs on average—that's a yearly spend of roughly \$175 million, so inventory control was imperative. Yet inventory on hand numbers were unreliable, with expensive over-ordering as a result.
- Pharmacists were too involved in the process of filling medication orders rather than working with patients. This was a poor, and expensive, use of their time.
- Manual processes were slow, error-prone, and required a good deal of human intervention, adding costs and running the risk of impacting patient safety.
- Gaining prior authorizations for certain medications, which was assigned to nurses, was time-consuming and a poor use of trained medical resources so they were often neglected, resulting in non-payment.

As a new hospital was being built, the time was right to set up a new inpatient pharmacy system that would work across the original hospital, as well as other facilities.



The Solution

Dr. Gary Johnson possesses deep experience in re-engineering pharmacies. He knows every product in the industry, so he hand-selected each component, which would integrate into a single system. He tapped Swisslog Healthcare for six AutoCarousel® vertical carousels (5 for hospitals, 1 for a retail location).

AutoCarousel provides heavy-duty, secure automated storage for medications. It organizes medications and reduces the storage footprint. Coupled with AutoPharm® Enterprise medication management software, it plays a key role in automating the order-filling process, increasing efficiency and reducing errors.

The AutoCarousels work together with a pharmacy information system, a robot for IV mixing, ADUs for hospital floors, bedside barcoding software, and an electronic medical records system.

Dr. Johnson's approach was to set up an internal distribution system, with each facility sending orders to one hospital, and deliveries made every day. The hospitals keep a 5-day supply, while other locations keep only a 1-2 day supply (the "Just In Time" method of inventory replenishment). With this setup, inventory is much more closely controlled, and the drug supplier has only one stop to make, saving significant costs.

Dr. Johnson has taken the process one step further, establishing relationships with distributors and manufacturers to negotiate better pricing.

“ Our five AutoCarousels dramatically improved inpatient medication management, including drug distribution, inventory optimization, patient safety, Pyxis™ replenishment, medication cart maintenance, and technician staffing patterns,” said Dr. Johnson.

To address the issue of pre-authorizations, Dr. Johnson again approached Swisslog Healthcare. Experienced in working with insurance providers, Swisslog Healthcare's Revenue Cycle Management team took over the job of getting prior authorizations for UKY's four clinics. The team researches and gathers supporting information, presents it to the insurance provider, and manages the administrative tasks of ensuring the requests are processed in a timely manner and with a goal of getting the best outcomes possible in the form of approved requests. At present, the team processes approximately 1,100 individual treatment regimens per month.

The Results

The results with increased workflow efficiencies supported by the new system have been extraordinary across the board, especially considering the number of locations and volume of meds and patients served by Pharmacy Services at UK HealthCare:

- Dispensing errors were reduced by 75%
- Inventory costs were cut by \$1 million and continue to stay low.
- Prescription order processing time has been drastically reduced – from 3 hours to 90 minutes.
- Pharmacy techs can now fulfill orders, so pharmacists are free to participate in treatment teams and able to fully utilize their skills. They make daily rounds and are responsible for determining dosing and when to stop a medication. This saves money and improves patient care.
- UK HealthCare can now be more proactive in transition of care, with the goal to reduce or prevent re-admissions.
- Retail pharmacy, which operates in only 500 square feet but fills 250-300 prescriptions per day, has particularly benefitted from the small footprint and organization offered by the AutoCarousel. In addition, UKY and its patients have benefitted from the decision to use Swisslog Healthcare for prior authorizations.
- The revenue cycle management service has saved the equivalent of approximately one full-time medical staff person per clinic; now, four trained medical professionals are free to spend time caring for patients rather than administrative work.
- UKY has reported a 20:1 return on the investment in the revenue cycle management service. In other words, the fee charged by Swisslog Healthcare makes up only 5% of the total amount of money that is recovered by using the service.
- By working so closely with UKY's primary insurance providers and gaining an understanding of their processes, the Swisslog Healthcare revenue cycle management team is more efficient at maneuvering through their systems and providing the right information the first time. Requests are processed faster, and the likelihood of approvals has increased. This benefits both the clinics and their patients.

With an intelligent, innovative approach, backed by a best-of-breed solution with Swisslog Healthcare playing a key role, UK HealthCare not only continues to set the pace for quality care, but also has demonstrated how much can be accomplished when the pharmacy is empowered to realize its full potential.

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