

Case Study



The Final Frontier of Automation: Automating the Anesthesia Process

At a Glance

Saint Luke's Hospital
Kansas City, MO
www.saintlukeshealthsystem.org

Solution Spotlight

– Anesthesia-Rx™

Overview

For a hospital that dates back over 125 years, Saint Luke's in Kansas City, Missouri was definitely not lagging behind the technology curve. The hospital has a history of innovation and relies heavily on automation to enhance their quality of care. Saint Luke's employs a patient-centered integrated model where pharmacists are proactively engaged in medication selection and management with the multidisciplinary care team.

As part of an ongoing effort to improve patient care, the hospital regularly reviewed processes, and in 2009, the focus was on the pharmacy model and anesthesia dispensing process. Doug DeJong, Director of Pharmacy, explained the hospital initiative. "At the time we were going through a review of our distribution model, deciding whether we wanted to continue with a decentralized model or go with a hybrid approach. We recommitted to a decentralized model, added additional AcuDose-Rx® cabinets in the busiest units, and Anesthesia-Rx was the logical extension for us."

Challenges

Prior to Anesthesia-Rx, the dispensing process during surgery was not well controlled and manual. "The stock that they used fairly frequently was inventoried in a red Craftsman toolbox on wheels," said Mark Steinbeck, Pharmacy Operations Manager. "We had a central AcuDose-Rx cabinet in each operating area where controlled substances and less commonly used drugs were stocked. We knew that automating the anesthesia process would

enhance inventory management, improve control of controlled substance waste, and reduce documentation time for pharmacy."

"We wanted to improve delivery and in-room access to meds beyond non-controlled substances," said Doug. "We wanted a mechanism to identify high usage drugs so that when the anesthesiologist reaches for a med, they would have it right at their fingertips, ready and available. We also wanted an automated way to track the inventory levels to reduce stock-outs and have a mechanism to identify the staff accessing the medications if there is a discrepancy. Within the automated carts, we wanted the ability to control the medications to improve patient safety."

Since the pharmacy already had several McKesson products in place, including AcuDose-Rx, MedCarousel®, Fulfill-RxSM and DataStation™, they wanted a system that worked on the same platform. As Mark explained, "We'd already seen the inventory management benefits of an integrated system with AcuDose-Rx and MedCarousel. With Anesthesia-Rx, meds that need to be restocked in the carts are communicated to our work queue on MedCarousel. When the meds are removed from the carousel, the bar code can be scanned for accuracy, and the meds are separated by each OR suite for delivery."

Answers

Due diligence was done on the products available, and McKesson's Anesthesia-Rx was selected for their automated cart. "We had looked at a competitor's version and were not very impressed with it," said

"We knew that automating the anesthesia process would enhance inventory management, improve control of controlled substance waste, and reduce documentation time for pharmacy."

Mark Steinbeck

Pharmacy Operations Manager
Saint Luke's Hospital

Doug. "When I first saw the Anesthesia-Rx product, I found it to be very intuitive, it had an easy interface, and I felt that it was designed with what an anesthesiologist would want. As an industry, we sat on the sidelines thinking anesthesiologists were a tough group to impress, and I came back thinking it was time to get a product like this accepted."

And when it came time to sell it to management, the common platform helped. "The number one thing was that it was consistent and worked with our suite of McKesson products," said Doug. Mark seconded that and added, "The fact that Anesthesia-Rx operated well on our automation platform and utilizes the same software as AcuDose-Rx was a big selling point." As part of the AcuDose-Rx maintenance program, McKesson provides regularly scheduled software upgrades, allowing the hospital to add new functionality and keep technology up to date without having to replace existing equipment. "We, like everyone else, have an annual capital budget and pharmacy has to compete with a lot of other things," recalled Doug. "We had recently made the conversion from leasing to purchasing the AcuDose-Rx cabinets and after a couple of cycles of larger requests; we were able to show that this was a direct extension of the line."

The carts went live in December 2010 and some results were obvious from the beginning. According to Mark, "We recognized that it is saving us time right away, especially in the handling of medications and manual charge documentation capture. We have improved our ability to optimize inventory/PAR levels, which has streamlined our inventory management processes. Our ability to monitor drug inventory is significantly better with regards to controlled substance discrepancies. We now have a record of the individual who accessed each cart and can pinpoint the user involved more effectively. The data collection process has helped improve charge capture and identify where there is charge capture loss pretty easily."

In terms of acceptance of the carts by anesthesiology, Mark noted that, "They appreciate having nearly every med they need in the room, including controlled substances. They also like the fact that they have quick access to the meds they need at any given time." The hospital configured the carts with High Capacity Locked Lidded drawers and has seen improvements in medication security as a result. "In our carts, the top four drawers are locked lidded. Because of the large capacity, we can store more of the controlled substances and even non-controlled meds in those drawers, which has improved security overall and reduced the opportunity for diversion."

A popular feature with the anesthesiology team is the "My Stock" function, which offers a provider the ability to pull out a medication if the patient hasn't been bedded. "One of the limitations of any automated system is that the patient has to be bedded or listed in the system. In those urgent cases where they come in through the ER, the anesthesiologist may not know the patient's name, but they can pull the drugs out under My Stock in order to take care of the patient. By the time the case is over, that patient should be in the system and you can pass the charges on to that account so they are not have charging issues on the back end. That has been very positive, as is the ability to transfer stock to another user if cases last beyond their normal shift."

The switch to Anesthesia-Rx has already made a positive impact on Saint Luke's processes and workflow. "It doesn't have the same ROI analysis that you can do in your broader nursing units, but I can recite a list of improvements that we've realized with this technology," said Mark. "Anesthesia-Rx has reduced pharmacy time, improved inventory control, and provided drug utilization accountability by keeping the management of the controlled substance use and waste in the hands of the user. And it has helped the anesthesia team by ensuring ready, in-room access to medications, improving patient safety and workflow."

MCKESSON

Empowering Healthcare

McKesson Automation Solutions

500 Cranberry Woods Drive
Cranberry Township, PA 16066
(724) 741-8000

www.mckesson.com