

Case Study



Lutheran General Finds Success in “Hybrid” Med Order Solution

At a Glance

Advocate Lutheran General Hospital
Park Ridge, IL

Solution Spotlight

– Horizon MedComm-Rx™

Results

- Accounts for 30% of all daily medication order processing
- Complements CPOE system and workflow
- Fosters decentralized staff pharmacist model
- Serves as a primary communications channel for staff pharmacists

Overview

Advocate Lutheran General Hospital implemented a CPOE (computerized physician order entry) system in 2005. Even then, pharmacy leaders recognized a critical “bridge” role for its legacy medication order management system. Five years later, pharmacists continue to process 30 percent of all daily orders through the faxed-based system because it enables the hospitals’ preferred decentralized pharmacist model, and delivers great value as a primary communications channel for pharmacy.

Challenges

Advocate Lutheran General Hospital is a 645-bed research and referral hospital, and a Level I trauma center. Part of the Advocate Health System, named by Thomson Reuters as among the “top ten health systems,” Lutheran General is ranked among the nation’s very best teaching hospitals.

On average, Lutheran General pharmacists review and act on 500,000 medication orders per month. Most of those orders—approximately 70 percent—are processed via the CPOE system.

Explained Pharmacy Manager John Falkenholm, Pharm.D., “Because we are a teaching hospital, the vast majority of our physicians are residents.

They are mandated to do CPOE. All of our physicians have been trained in CPOE, their secretaries have been trained on assisting them, and physicians are told they must enter orders by computer. They can enter orders from any location on the Advocate network. Overall, this has translated into a fairly high physician adoption rate. We have very few holdouts.”

Despite this advanced state, Lutheran General still relies on paper for nearly one-third of its daily order total, particularly for standing post-op order sets, for chemotherapy orders, and for TPN (total parenteral nutrition) orders.

Said Falkenholm, “When we first started on CPOE, we all thought we’d be virtually paperless by now. The reality is that paper is not going away anytime soon. The key to success is effectively managing the paper and verbal orders in the same fashion as you do with CPOE.”

Answers

To manage non-CPOE orders, Lutheran General uses the same system as in its pre-CPOE days: the Horizon MedComm-Rx™ order management system. Secretaries or nurses fax paper orders from as many as 45 locations, ranging from inpatient units, operating rooms, emergency department, radiology department, and cardiac catheterization labs.

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John Falkenholm, Pharm.D.
Pharmacy Manager
Advocate Lutheran General

The system digitizes about 500 paper orders per day, instantly populating them into electronic work queues, said Falkenholm. Bar-code recognition assures immediate identification of patient orders, and associates the order with a patient profile in the pharmacy information system. Time-stamping is an effective process reporting and auditing tool. Pharmacists can magnify or rotate images for clarification. If there's still a question, then the pharmacist is responsible for contacting the physician and resolving it.

According to Falkenholm, Horizon MedComm-Rx complements the CPOE system and fosters the decentralized staff pharmacist model preferred by Lutheran General. "From their workstations, pharmacists toggle back and forth between Horizon MedComm-Rx work queues and CPOE work queues. It's a hybrid system that works well for us, and I believe that most hospitals transitioning to a CPOE environment will find value in it as well."

With a central pharmacy where medication dispensing operations are fully automated, Lutheran General moved staff pharmacists into direct patient care areas. This is in addition to the department's five full-time, clinical pharmacists.

Said Falkenholm, "Having staff pharmacists out on the floors is a huge benefit. In addition to processing medication orders, they do patient med histories, complete rounds, and perform patient education. Overall, they have a great impact on patient care. In some instances, the pharmacist workstation is located near the unit-based medication cabinet. Nurses walk up and collaborate with pharmacists, who can address problems immediately, such as new patient orders, missing doses, or any other issue."

In all, there are 12 decentralized staff pharmacist workstations spread across the three campus buildings, in locations such as medical-surgical nursing units, emergency department, OR, intensive care, and more. Two central pharmacy workstations also are used throughout the day. Staff pharmacists and managers regularly monitor the electronic work queues and share the workload during busy periods.

Results

Five years after CPOE implementation, Falkenholm continues to find new value in the hybrid solution for medication order management.

"Horizon MedComm-Rx has become an essential electronic communications tool for pharmacy," he said. "For instance, our decentralized staff pharmacists may be unreachable by fax machine or by the pneumatic tube system. But they are accessible via their work queues. When an alert comes into the central pharmacy, or a report from the cath lab or radiology arrives, we simply print it on paper, scan it, open it in Horizon MedComm-Rx, and then route it to the assigned work queue for action. It's been a huge productivity boost for us."

"Implementing a CPOE system takes years of intense planning, a large capital allocation, and a lot of hard work to get physician adoption," continued Falkenholm. "We struggled for several years to achieve 50 percent order entry through CPOE. That's why I see technologies like Horizon MedComm-Rx as being so important. They can serve as complementary systems for medication order management, and for so much more."

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