

Case Study: Medication Tracking System Improves Drug Delivery Times for Riverside Methodist Hospital

Riverside Methodist Hospital is 1,058-bed tertiary care hospital member of OhioHealth, a nationally-recognized, not-for-profit charitable, family of 17 hospitals throughout a 40-county area.

The pharmacy department at Riverside estimated they were receiving about 400 calls per day from nursing with a portion of those calls asking about where their medications were located in the distribution process, and when they would be delivered. Historically, they also had approximately 150-175 missing medication requests per day which led to staff frustration and tension between departments. The department's obsolete inventory had reached a level of \$250,000 annually due to normal shelf-life expiration and duplicate doses generating waste.

Riverside Methodist Hospital launched a new wireless tracking system in April 2009 that records, in real time, the preparation of medications and their delivery route from the pharmacy to the nursing unit.

The system, called MedBoard™, is a barcode-driven technology that reduces delivery times to improve pharmacy productivity and reduces medication waste. “We like to call it the ‘FedEx of the pharmacy world’ because it tracks the medications that nurses are waiting for just like FedEx tracks a package,” said Charles McCluskey, PharmD, director of Pharmacy and Pulmonary Services at Riverside Methodist.

Logout
Nov 07, 2009 16:21
You are logged in as:

MEDBOARD

Main Page Search Scan Barcodes Administration My Account

Select View: default Select Nursing Unit/Group: All 17 records

Cat	Priority	Patient	Room and Bed	Nursing Unit	Drug	Location	Status	Timer	Delivered at	Order	Cancel
	Routine	Bret Kimple	63501-1	1S	ALBUMIN 25%	1S	Returned	0		009246650	⊗
	Now	Marcel Uppelschoten	64201-1	1H	SODIUM BICARB 8.4%	1H	Cancelled	0		009246750	⊗
	Now	Marianne Baldetti	6104-01	6T	PROMETHAZINE 25 MG TAB	Pharmacy	Order checked by	2		18696572	⊗
	Now	Vito Sardella	82701-1	7T	SODIUM BICARB 8.4%	Pharmacy	Being Prepared	4		009246744	⊗
	Routine	Randy Shilling	5264-01	5N	ONDANSETRON 2 MG/ML INJ	Pharmacy	Awaiting RPh Chev	4		18696564	⊗
	Routine	Nathaniel Freese	53901-1	5N	CEFTRIAXONE IN DILUENT	5N	Delivered at Destin	5		009246765	⊗
	Stat	Stefan Kolata	83801-1	5N	ACETAZOLAMIDE SOD	Pharmacy	Awaiting RPh Chev	6		009246706	⊗
	Stat	Lester Robbins	5264-01	5N	DIPHENHYDRAMINE 50 MG/ML INJ	Pharmacy	Checked/Awaiting	6		18696566	⊗
	Now	Jed Leonard	64101-1	7T	CISATRACURIUM	7T	Cancelled	7		009246397	⊗
	Stat	Kt Wells	54201-1	5N	HEPARIN	5N	Delivered at Destin	7		009240417	⊗
	Routine	Graham Hood	54201-1	1H	EPOETIN ALFA (PROCIT)	Pharmacy	Delivery in Process	7		009246657	⊗
	Now	Kirk Dornton	74401-1	1H	LOPERAMIDE	Pharmacy	Order checked by	7		009228217	⊗
	Stat	Thomas H...	63601-1	1S	NEVMEFETOMIDINE HCL	1S	Returned	7		000146747	⊗

■ Overdue
 ■ Approaching Overdue
 ■ In Progress
 ■ Delivered, Cancelled, Returned

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The Riverside Methodist pharmacy has a track record of progressive thinking. Hospital pharmacies have been looking for something like this for years because the benefits run throughout the organization. Nurses can get their medications to patients more quickly and it reduces wasteful re-orders from communication breakdowns.

The Riverside Methodist Pharmacy processes an average of 6,000 orders (or 13,000 doses) a day for 130 different delivery sites within the hospital. After the orders are written, they are sent to the pharmacy to be processed, compounded, labeled and dispensed. The new technology scans labels through each step in the chain to instantaneously update the order status and location. MedBoard eliminates the need for replacing lost or late doses, prioritizes order preparation to

ensure delivery of time-sensitive orders and decreases pharmacy and nursing time searching for doses.

The defining feature of MedBoard is an information screen, called a status board, accessed through a secure and HIPAA-compliant Internet site that displays in real time the priority, status and location of a medication. The information spares nurses and pharmacy personnel the inconvenience and delays of trying to locate a medication. Despite a very efficient pharmacy system, on occasion, nurses have had to wait 30 minutes or more to know when their medications left the pharmacy and where they were delivered. "Now we know who is delivering what to where within seconds," McCluskey said.

These status boards are displayed on two 42-inch plasma TV screens in the pharmacy and are available on any hospital computer to authorized nurses. Each medication is color coded on the board, with red signifying it is overdue, yellow indicating it is approaching overdue and green meaning it is in progress.

The system went live in April 2009 for pilot testing and was fully implemented in July 2009. It is tracking about 12,000 doses a month, with a focus on high-priority and high-cost medications because "we don't want to lose track of them," McCluskey said. Its use is gradually being expanded to include more medications and nursing units.

McCluskey estimated training time at two hours per day for the first two weeks, then one hour per day for the next two weeks. Total time equaled 30 hours of one person's time, plus another 10 hours of staff time.

The implementation of MedBoard has shown results in reducing missing medication requests from 150-175 per day to 90 per day, and a 32 percent reduction in waste costs in the first six months. Projected savings for Fiscal Year 2010 are expected to be in excess of \$90,000. Productivity gains show \$12,000 in medication safety pharmacist time and \$50,000 in gained productivity for the hospital staff overall based on phone calls and missing med requests. Total return on investment for 2010 is expected to exceed \$150,000.

Patients benefit from more timely delivery of the medications. "Some patients need their medications within minutes," said Bob Hammond, Pharmacy Operations Manager at Riverside Methodist. "Our goal is to get the highest-priority medications to them within 15 minutes." The technology provides data to evaluate and improve pharmacy performance and reduces diversion by identifying the last person to handle the product.

For more information on MedBoard or to request a free web demonstration, visit <http://www.pharmacyonesource.com/medboard> or call 800-654-8395.