

Performance Strategies



The Power of Vision and Innovation to Improve Performance

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OhioHealth Improves Patient Safety via Comprehensive IT Initiative



*By Michael Krouse
Chief Information Officer
OhioHealth*



Promoting Patient Safety

We've always placed a high value on improving patient safety at [OhioHealth](#), so it came as no surprise when our governing board supported prioritizing the deployment of bar-coded medication administration, a new lab system, and CPOE ahead of other projects at our Columbus-area hospitals. We also realized that simply installing software does not create a safer environment. We needed to create a culture of safety by adopting best practices and driving standardization.

Because our patient safety journey began years ago, OhioHealth is now well positioned to demonstrate "meaningful use" of IT in healthcare as outlined in the American Recovery and Reinvestment Act. Although meaningful use criteria is still evolving, we believe that the quality, safety and efficiency benefits culled from our patient safety initiatives are likely to help move us toward qualifying for government incentives.

Creating a Culture that Relies on IT for Safety Support

Our approach to creating a culture that relies heavily on technology to improve patient safety can be viewed as a model for healthcare organizations that seek to "meaningfully use" technology in the patient care setting.

To start, making good on our patient safety aspirations required much more than simply plugging technology in and hoping for the best. Instead, we launched a comprehensive initiative by:

- Examining the processes involved in medication and lab specimen collection
- Understanding how hospitals in our system handle such processes
- Identifying what had to change

Working with consultants from McKesson's [Clinical Consulting Services](#), OhioHealth assembled a team of clinical representatives from each hospital and discipline involved in the medication and lab processes. The team included staff members from every level to ensure that everyone who touches the medication administration and lab collection processes would have a say in the improvements. For example, nurse managers, nurses, nursing assistants, pharmacists and pharmacy techs all participated in the medication safety project.

The teams developed detailed spreadsheets, outlining each process and prioritizing what needed to change. The ultimate goal was to identify best practices and establish standardized methods to reach the desired targets.

Using the analysis of the medication administration process, the team decided that:

- All medication dispensed from the pharmacy would be bar-coded
- All physicians would use a closed-loop medication process (phased in by hospital)
- At least 95% of inpatient discrete medication doses would be administered using bar-code scanning

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To move all of our hospitals toward these goals, we quickly realized that we would have to:

- Provide mandatory patient safety training for all associates and physicians
- Monitor and share “lessons learned” from safety events occurring system-wide
- Leverage information technology to help “make safety automatic”
- Actively engage the physician community to effectively modify physician workflow

Our greatest challenge, therefore, was to quickly implement various technologies and leverage the benefits across our large organization.

To start, more than 3,000 staff members were trained to use a [pharmacy information system](#), a [bar-code medication administration solution](#) and a [lab information system](#). That was followed with the introduction of comprehensive digital documentation, positive identification, and computerized provider order entry (CPOE).

Tapping the Benefits of Technology

Leveraging the power of these technologies across OhioHealth, we developed a clinical repository of patient-specific documents and information across the enterprise. We developed a rich set of tools and viewing capabilities into the repository and then incorporated McKesson’s [physician portal](#) to fully enable our physicians to electronically view, complete and sign off on patient charts from any location.

We took medication safety a step further at our all-digital hospital, Dublin Methodist, where we implemented McKesson’s [computerized physician order entry \(CPOE\) system](#). With electronic orders, Dublin practitioners are eliminating prescribing errors, enabling faster turnarounds in medication delivery, and are managing patient care in accordance with evidence-based guidelines and standards. With a staged approach, CPOE is actively rolling out to our remaining member hospitals. Most important to the success of CPOE in Ohio, was our ability to meet the stringent Ohio State Board of Pharmacy requirements for positive ID for anyone involved in the ordering and/or administration of medications.

With these systems in place, we are now administering medication via a closed-loop system. Nurses scan and verify the “five rights” – right patient, right drug, right dose, right route and right time – prior to administering medications. The system ensures that records are legible, timely and immediately accessible to authorized caregivers.

Improved Safety Results with IT

The fact that we have been able to get clinicians to use these systems is, perhaps, the most important accomplishment of this initiative. As a result, we have met or exceeded our goals and improved patient safety at OhioHealth:

- 97% compliance in scanned medications prior to administration
- An almost 100% reduction in medication errors related to wrong patient, wrong medication, wrong dose and wrong route
- 98% decrease in mislabeled blood specimens
- A significant reduction in transfusion errors

Although the initiative was meant to improve patient safety, we realized financial benefits as well. For instance, we reduced lab labor costs by more than \$300,000 by avoiding unnecessary rework. And we have captured more than \$100,000 in revenues that would have been missed using the former processes.

Our efforts have made it possible for us to create a culture that truly puts patient safety first. By re-engineering processes and leveraging technology, we are getting patient safety results that can hold up to just about any scrutiny – whether by patients, regulators or the media.

OhioHealth is a winner of McKesson’s 2009 VIP Award. Each year McKesson recognizes customers that demonstrate vision and innovation in the use of information technology to enhance healthcare performance.

OhioHealth Improves Patient Safety via Comprehensive IT Initiative (Cont.)

Michael Krouse is the Chief Information Officer for OhioHealth. In this role, he is responsible for providing leadership, vision and oversight for information systems and technology throughout the 17 member and affiliate hospitals. He has overall responsibility for direction, coordination and management of all IS/IT business and clinical functions. He is the key executive at OhioHealth focused on leading and implementing business strategies to align the Information Services department with organizational goals and to meet the challenges of the changing healthcare environment. Mr. Krouse is an experienced speaker and author of articles on IT trends and technology, and is currently authoring a book on leadership development.

OhioHealth Patient Safety Goals and Results

Measure	Goal	Result
Bar-coding of medications dispensed from the pharmacy	100%	100%
Patient discrete medication costs administered using bar-code scanning	95%	97%
Physicians/extenders using computerized physician order entry	100%	100%

Leveraging information technology enabled OhioHealth to achieve or exceed its patient safety goals.

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