

Performance Strategies



Use CPOE to Lead the Way in Safe, Effective Healthcare

Vol. 3, Issue 4, 2009

CPOE Delivers at Dupont with Safety and Efficiency Gains



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Exceeding Patient Expectations

[Dupont Hospital](#) in Fort Wayne, Ind., has a long history of embracing technology to enhance patient care and services. While our obstetrics unit has consistently achieved a high level of patient satisfaction, we are always trying to achieve our mission – to create a five-star experience by exceeding individual expectations for all patients who enter our doors – especially those who arrive in active labor and need immediate assistance. The executive and administrative staff recognized that technology could enable us to improve our processes even more, with a greater emphasis on safety and efficiency.

The leadership at Dupont Hospital identified our Birthplace unit (labor & delivery, postpartum, newborn nursery and neonatal intensive care) as a great starting place to further reduce the potential for medication errors and improve the timeliness and efficiency of care.

We determined that a computerized provider order entry (CPOE) system could significantly reduce the time staff spent transcribing medication orders, faxing them to the pharmacy, and attempting to decipher illegible handwriting. In addition, reducing the number of steps in the ordering process would mean reducing the time from when the physician ordered the medication to when the patient received it. At Dupont, we refer to it as computerized *patient* order entry, since ultimately it is about how we can improve care to our patients.

Team-Championed Implementation

The first step in our journey was selecting McKesson's [Horizon Expert Orders™](#) as our CPOE solution, followed by an intensive planning period. Our approach was governance-based and championed by an interdisciplinary team that initially included both executive management and physician advocates.

As the project proceeded to the mapping and implementation phases, the team was expanded to include staff members in nursing, registration, clinical informatics, respiratory therapy and pharmacy. This group drove the critical aspects of customization that would provide the essential functionality needed for practical, everyday use in a clinical setting.

Smaller physician teams were responsible for some of the most important factors in the success of our CPOE implementation: establishing core rules and protocols that were defined, owned and accepted as standard best practices.

Transforming the Culture

For the CPOE system to succeed in relation to management methodology and goals, we needed to transform our patient care processes on individual, cultural and organizational levels. Guided by John Kotter's principles for change, as well as the Lean approach, we established specific goals, including:

- Increase safety and avoid medication errors.
- Reduce STAT medication overrides.
- Eliminate issues of illegible handwriting.
- Decrease medication turnaround times.
- Improve timely patient care by freeing nurses from administrative tasks.
- Enhance quality of care with established best practices and protocols.
- Gain bottom-line results through methodology efficiency.

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CPOE Delivers at Dupont with Safety and Efficiency Gains (Cont.)

Overcoming Barriers

Our team chose to mandate full adoption upon go-live in the Birthplace unit. We understood that this decision would take physicians and staff outside their comfort zone. To overcome this barrier, we focused on training the nursing team and bringing them live with CPOE first. This enabled them to be the front-line support for physicians.

Standardization was an additional challenge. With so many possible variations for treating the same medical condition during various phases of treatment, it was a huge win when we agreed upon best practice content for the CPOE system. Creating consistent order sets that added value and promoted ease-of-use was another hurdle that we conquered through teamwork. During our CPOE journey, we learned:

- **Start early** by looking at the whole process in relation to Lean methodology and find ways to eliminate unnecessary procedures and practices.
- **Establish best practices** and a standardized model for care that is repeatable for other hospitals in the network.
- **Create an interdisciplinary team** to advocate and lead the CPOE project.
- **Help ensure safety** is a key focus by deploying foundational solutions such as bar-code medication administration and a true closed loop medication use process along with CPOE.
- **Focus on patients**, because the ultimate goal is to enhance their safety and care.

Achieving Outcomes

Dupont went live with physicians using the CPOE system in May 2007. We currently have 127 physicians and mid-level practitioners using the system, with an average of 60,000 orders entered into the system each month. Universal adoption continues to be our goal across the enterprise.

The electronic ordering system has:

- Improved Dupont's speed of care by eliminating delays caused by illegible handwriting from nearly 50% to negligible.
- Reduced by 49% the time from when a physician orders a medication to when it's administered to the patient.
- Reduced by 24% the need for nurses to use STAT overrides in medication cabinets by getting medications to expectant mothers quicker — a key factor in improving patient safety.

Streamlining the process has given our nurses more time to spend on caring for our patients, and it got the medication to the patient quicker — a critical improvement for expectant mothers who are ready to deliver.

Dr. Matt Sprunger has been a practicing OB-Gyn for more than 20 years and is currently practicing at Women's Health Advantage in Fort Wayne, Ind. In addition to his current role as the Medical Director of Clinical Informatics at Dupont Hospital, he served as a Board Member for seven years. A single acute-care facility consisting of 131 beds, Dupont Hospital, a member of northeastern Indiana's Lutheran Health Network, delivers approximately 2,400 babies each year and has approximately 20,000 ER visits.

Dupont's Safety and Efficiency Gains

- ▶ **Signature Confusion**
Nearly eliminated care delays previously caused by illegible handwriting in nearly 50% of orders.
- ▶ **Order Turnaround Time**
Reduced by 49% the time from when a physician orders a medication to when it's administered to the patient.
- ▶ **Overrides**
Reduced by 24% the need for nurses to use STAT overrides in medication cabinets by getting medications to expectant mothers quicker — a key factor in improving patient safety.
- ▶ **ROI**
Dupont has reaped savings in pharmacist time and reduced the length of stay in the ED by 40 minutes, enabling better use of staff time.

Learn More

[MTC/NEHI: Saving Lives, Saving Money: The Imperative for CPOE](#)

[Study: Florida Adoption of IT Improves Patient Safety](#)

[H&HN: Seeing the Light with CPOE](#)