

L'Aide à la Décision Clinique dans les SI

Retour d'expérience d'un éditeur de logiciels hospitaliers

Dr. T. MITOUARD - Conseiller - McKesson France

Les fonctions d'aide à la décision clinique sont exploitées dans les solutions des éditeurs

Modern Healthcare

THE ONLY HEALTHCARE BUSINESS NEWS WEEKLY

MARCH 26, 2008

Concord Hospital sees positive CPOE outcomes

Joel Berman is in an enviable position for a chief medical information officer.

Six months into a slow-roll implementation of a computerized physician order entry system at 220-bed Concord (NH) Hospital, Berman has had not one medical staff delegation show up at his door with flaming torches. In the CPOE business, that is not damnation with faint praise.

On the contrary, a recently completed survey of medical staff physicians gives Berman cause for optimism, and in one case, surprise.

"We had implemented CPOE in September 2007, and six months later we wanted to find out our providers' point of view," Berman said. "What was working well? What did they like? What did they want differently?"

So far, about 80 of the 300 or so physicians with privileges at Concord are using McKesson Corp's Horizon Expert Orders CPOE system, Berman said. Thirty-three of them answered a survey, with solid marks for functionality and 94% rating the system use for finding and entering laboratory results, diagnostic orders for dietary, physical and

Not surprisingly, given marks for functionality and doctors surveyed rated it excellent or good while 88% ratings for on-going support. Physicians concluded that a significant (6%) or slight the quality of care.

What was unexpected, perceived impact on efficiency.

"In general, physicians stakeholders in the eq requires them to do order previously they hadn't," B are used to (Microsoft) W so they expect to be able to right click and get definitions and I don't know of any (CPOE) system that has that. CPOE is not time-neutral, especially early on."

Although Berman said Concord has not put a stopwatch to specific order writing, for many physicians plugging away at an unfamiliar system, a common perception is that for certain tasks it takes longer with CPOE than with paper. Even so, Berman said he was heartened by physician responses to questions about the impact of the system on efficiency of care.

While just 6% of physicians found the system significantly increased their efficiency, 34% responded efficiency increased slightly and another 12% reported no change. And while 41% reported it decreased efficiency slightly and another 6% significantly, Berman is more than satisfied with those numbers so far.



Berman

Within the first six months, "That surprised me," Berman said. "We were thinking there would be a larger percentage that would have rated it unfavorably."

Berman said he believes the physicians' favorable responses, so far, have been because many of them are taking a broad view of efficiency. If physicians

looked only at how long it took them to write an order as opposed to entering it in the system, they'd probably see the new CPOE system as less efficient, he said. But if physicians use a systemic definition of efficiency—and he believes many at Concord have—that includes a reduced number of callbacks from the pharmacy due to poor handwriting or contraindications, many of

With the CPOE rollout, the hospital used 40 different metrics to document progress, including the 11 metrics for diabetes care promoted by the Bridges to Excellence program, Berman said.

For example, "Documentation of diabetic foot exams went up from 20% to 80% in six months," Berman said. "There were prompts at the point of care along with population reports, so everybody could see how each provider was doing."

Concord also documented a one-day observational survey comparing its post-go-live deep-vein thrombosis prophylaxis rate in December 2007 to the pre-CPOE rate in October 2006. DVT prophylaxis rates for eligible surgical patients increased from 92% to 100% while rates for medical patients rose from 77% to 100%, according to Berman.

Berman credits Concord President and Chief Executive Officer Mike Green as "the real

Concord also documented a one-day observational survey comparing its post-go-live deep-vein thrombosis prophylaxis rate in December 2007 to the pre-CPOE rate in October 2006. DVT prophylaxis rates for eligible surgical patients increased from 92% to 100% while rates for medical patients rose from 77% to 100%, according to Berman.

of the Concord physicians' own orders and asking staff members to decipher their own handwriting. While the physician scribe was not identified, "people had to vote and we had to show them what the correct result was," Berman said. "We started out humorously and got more serious." The last slide, Berman said, was an example of a physician who overdosed a girl with Dilantin by a factor of 10.

Another possible positive influence on physician perception of system efficiency has been Concord's benchmarking efforts pre- and post-implementation of CPOE.

"We had some experience with our outpatient EMR that taught us to do that," Berman said. The first of what are now nine physician offices owned by the hospital went live with an EMR in 1995.

"That was our primer on how to effect organizational change."

introduced a new medical specialty, we found new orders and new problems. We found it (slow roll) more effective than big bang."

Berman said he doesn't think the hospital will ever be able to push all orders through CPOE. For now, the goal is for 90% of physician orders to come through CPOE within six months.

"We're about halfway there now," he said. "Overall, they are as a group pretty satisfied with it, which to me is a huge accomplishment." ◀

Exemple 1 :

Concord Hospital,
Concord, NH :

Amélioration de la couverture du risque thrombo-embolique

- ▶ % de malades à risque recevant le bon traitement préventif. (étude avant/après)
- Chirurgie : 92% à 100%
- Médecine : 77% à 100%

<http://www.modernhealthcare.com/apps/pbcs.dll/article?AID=/20080326/REG/304088443>

CPOE

more time in direct patient care; and WellStar Health System, Marietta, Ga., which increased compliance with the national "Surviving Sepsis Campaign," and decreased the risk-adjusted mortality index and cost per case.

Making Every Drop Count

Decatur Memorial Hospital proved the value of CPOE in the appropriate utilization of blood. Because blood transfusions save countless lives, the use of blood is seldom restricted in clinical practice. There are compelling reasons, however, to monitor and guide the use of blood products, particularly in the patient safety arena. In short, if patients do not need blood transfusions, they should not receive them.

In 2006, hospital staff researched and settled on

Despite some early resistance, Decatur Memorial achieved universal use of the transfusion iForm and saw the following results over a two-year period: Blood use decreased from an average of 290 to 245 units per month; mean hemoglobin values decreased from 8.25 to 7.9; hemoglobin after transfusion decreased from 10.1 to 9.7; and financial savings of \$126,000-\$270,000 per year were realized.

ded logic justifies ordering and creates a feedback loop to help determine the need for additional units.

Despite some early resistance, Decatur Memorial achieved universal use of the transfusion iForm and saw the following results over a two-year period: Blood use decreased from an average of 290 to 245 units per month; mean hemoglobin values decreased from 8.25 to 7.9; hemoglobin after transfusion decreased from 10.1 to 9.7; and financial savings of \$126,000-\$270,000 per year were realized.

Although its obstetrics unit consistently achieved a high level of patient satisfaction, Dupont Hospital decided its birthplace unit was a starting place to improve the timeliness and efficiency of care. CPOE proved to be the right means to that end.

The Dupont team saw CPOE as the tool to help

reduce the time spent transcribing medication orders, faxing them to the pharmacy and deciphering illegible handwriting — streamlining the ordering process to reduce the time between physician order and patient receipt. Dupont went live with physicians using the CPOE system in May 2007.

When hospitals embed best practices into their CPOE systems and make that information actionable for physicians, it becomes a tool for achieving healthcare's full potential, while reducing its costs.

guidelines approved by the Surviving Sepsis Campaign, a partnership of the Society of Critical Care Medicine, the European Society of Intensive Care Medicine and the International Sepsis Forum. Teamed with the Institute for Healthcare Improvement, the Surviving Sepsis Campaign set a goal of reducing sepsis mortality by 25 percent within five years of its inception in 2004.

As the 10th leading cause of death globally, sepsis has a mortality rate of 30 percent to 50 percent and as high as 60 percent when shock is present. There are approximately 750,000 new sepsis cases each year, with at least 110,000 fatalities in the United States alone. Challenges in prompt diagnosis mean that more than 10 percent of sepsis patients experience delays in treatment, with a resulting increase in mortality.


Exemple 2 :

Decatur Memorial Hospital,
Decatur, IL :

Réduction de la consommation de produits sanguins

- ▶ Nb d'unités consommées par mois. (étude sur deux ans)
 - De 290 à 245 unités
- ▶ Impact sur les malades
 - Hb moy. : de 8,25 à 7,9
 - Hb post transfusion 10,1 à 9,7

<http://www.healthmgttech.com/index.php/solutions/electronic-medical-records/deliver-tangible-roi.html>



CPOE

Deliver Tangible ROI

Three healthcare organizations see reduced costs, enhanced efficiency and increased compliance with CPOE systems.

By Gerry McCarthy

Ten years ago, the healthcare industry as a whole was actively debating the merits of computerized physician order entry (CPOE) systems for hospitals. Today, that debate has changed, thanks to a growing body of evidence that points to fewer complications, lower death rates and increased efficiency for hospitals that use CPOE.

A study recently published in the *Archives of Internal Medicine*, titled "Clinical Information Technologies and Inpatient Outcomes," stated that hospitals using the industry finally appears to be close to a tipping point for adoption and use. According to the KLAS "2009 CPOE Digest Report," 9.6 percent of U.S. hospitals reported some level of CPOE use in 2008, up from the 6.8 percent reported in 2007 and well ahead of the 3.5 percent reported in the 2003 study. An estimated 17.5 percent of large hospitals (200-plus beds) now have some level of CPOE use.

WellStar achieved significant improvements in patient safety, including: saving 11 lives, reflecting a 14 percent decline in the ratio of observed-to-expected deaths; reducing risk-adjusted mortality index for septic shock by 17 percent; reducing length of stay for severe sepsis and septic shock by 10 percent; and, decreasing the cost per case for severe sepsis and septic shock by 4 percent.

For most hospitals, the new financial incentives, coupled with the expanding data that validates CPOE's numerous quality and safety benefits, have changed the question of CPOE deployment from if to when.

While healthcare has been slow to move to CPOE, providers, reducing risk for patients, while reducing costs for the hospital; Dupont Hospital, Fort Wayne, Ind., which enhanced efficiency in its obstetrical unit by improving medication/order turnaround times, reducing STAT medication overrides, and freeing nurses to spend

Exemple 3 :

WellStar Health System,
Marietta, GA :

Amélioration du pronostic des malades admis pour infection grave

- ▶ Mortalité observée/attendue
 - baisse de 14 %
 - baisse de 17% en cas de choc septique

<http://www.healthmgtech.com/index.php/solutions/electronic-medical-records/deliver-tangible-roi.html>

Quelques clés pour une implémentation réussie

Aide à la Décision Clinique :

Points Clés

- ▶ Mobilisation institutionnelle de la communauté médicale
 - Articulation entre «Prescripteurs» (ceux qui prennent des décisions cliniques) et responsables de l'exploitation du S.I.H
 - Organisation et ressources dédiées à la gestion de la connaissance
 - Pérennité de cette organisation
 - Réactivité interne
- ▶ Progressivité d'une démarche par objectifs
 - Thèmes ciblés peuvent avoir un impact important sur les pratiques
 - Evaluation
 - Démarche complémentaire des chantiers d'informatisation des circuits