CPOE—Show Me the Benefits!

By Karen J. O'Connor

Implementing computerized physician order entry (CPOE) systems in urban and suburban hospitals could save 60,000 lives, prevent 500,000 serious medication errors, and save $9.7 billion *each year*.[1] Yet according to one estimate, only about 2-5% of all U.S. hospitals have enterprise-wide CPOE capabilities.[2] This statistic is not particularly surprising when one considers that CPOE implementations are costly, often require significant integration efforts with other systems and usually face large cultural hurdles, including medical staff opposition and a generalized resistance to changing long-standing practices and procedures.

Physicians and health care organizations (HCOs) holding out on implementing CPOE systems are facing pressure though. Among other things, The Leapfrog Group, a coalition of health benefits providers that includes many Fortune 500 companies, is dedicated to promoting patient safety and has named CPOE as a critical method for reducing medical errors. Among other things, The Leapfrog Group members may accord preferential treatment to HCOs that implement The Leapfrog Group's standards.

To keep pace with these and other industry forces and their competitors' responses, HCOs cannot afford to delay any longer. Fortunately, the potential benefits of a CPOE system are many, including reducing clinical practice variation, operating expenses, adverse drug events, drug utilization, ancillary testing, and unit workloads. Moreover, CPOE systems are being sold based on promises of achieving these types of benefits, thereby providing HCOs with an opportunity to ask their CPOE system vendor to "put their money where their mouth is" by translating the sales promises into firm contractual commitments.

Before deciding to pursue a benefits-based approach to contracting, the HCO must be prepared at the highest levels in the organization to make a commitment to engage in any process re-engineering that may be necessary to achieve the desired benefits – not only will simply automating existing, inefficient processes fail to yield the full range of benefits that can be achieved through implementing a CPOE sys-

tem, but most CPOE system vendors will not be willing to accept enhanced contractual risk in the absence of that level of commitment.

Once the HCO has made a commitment to embrace change, the HCO must then identify the categories of benefits it hopes to achieve, and conduct an assessment to identify where it stands today in relation to each of those benefits categories. For instance, if the HCO hopes to achieve a reduction in time spent by nurses gathering information for documentation, the HCO must determine the amount of time that it spends on those activities today.

Once the benefits categories and baselines for each benefits category have been determined, the HCO can then negotiate with its CPOE system vendor the improvements the HCO expects to achieve from implementing the vendor's system. Examples include:

- Laboratory testing costs: prevent 1,000 duplicate and 1,500 unnecessary tests from being performed on an annual basis.
- Pharmacy workload: save ten seconds of pharmacist time per order entered via the CPOE system.
- Drug utilization: save $150,000 in drug costs annually via therapeutic substitutions.

The benefits that potentially can be achieved necessarily will vary from one organization to another, given that no two organizations have precisely the same characteristics and opportunities.

Next, the contract must set forth an agreed methodology for determining whether the benefits have been achieved. Among other things, the parties will need to discuss for each benefits category:

- When the measurements will occur. Measurements typically are conducted some period of time following system go-live. This allows for system stabilization, and the opportunity for end users to become accustomed to using the system.
- How the measurements will be conducted. The parties often designate a mutually agreed, independent third party to conduct the measurements. All measurements should use the same methodology that was used by the HCO when it established its

original baselines. If the parties do decide to use a third party to conduct the outcomes measurements, the contract should apportion responsibility for the costs and expenses that will be incurred by that third party.

- What happens if the parties disagree on the outcome of the measurements. The contract should include procedures that the parties agree to follow in an effort to resolve any disputes short of litigation. The dispute resolution procedures might include negotiations at successively higher levels of management, mediation (binding or non-binding) and arbitration (binding or non-binding).

Finally, the contract must identify the consequences associated with achieving or not achieving the anticipated benefits. In its simplest form, the consequences might include:

- The vendor's receipt of a bonus that is equal to a percentage of the project fees (for products, services or both), or forfeiture of the right to collect some portion of the project fees; or
- The vendor's receipt of a fixed dollar bonus, or payment of a fixed dollar "penalty".

The amount of the bonus or penalty might vary on a sliding scale that is based on the magnitude of the variance between actual and anticipated outcomes. Underlying this approach is the theory that the HCO pays only for the value actually received, so that failure to achieve the expected benefits means the system actually is of a lesser value to the HCO than it would have been if all benefits had been achieved as originally contemplated, and vice versa under circumstances where the benefits are achieved. In addition to bonuses and penalties, the contract might include a termination right (with or without cause) if the magnitude of a negative variance reaches a pre-negotiated threshold.

Assuring that value will be gained from deploying a new CPOE system is challenging, but not impossible. For HCOs and their CPOE system vendors who are willing to get creative when structuring their contractual arrangements, the opportunity for a "win-win" outcome can be greatly enhanced.

About the Author

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***Note**: The information contained in this article is current as of September 1, 2003, and is intended as general guidance only. This article should not be used as a substitute for legal counsel.*

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[1] See research statistics posted by The Leapfrog Group on its website at www.leapfroggroup.org/FactSheets/LF_FactSheet.pdf.

[2] Briggs, Bill. "CPOE: Order From Chaos," *Health Data Management*, Feb. 2003: 45-58.