Communication, Coordination and Knowledge Sharing in the Implementation of CPOE: Impact on Nursing Practice

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Abstract. The implementation of CPOE has transformed the delivery of healthcare. It has also significantly impacted nursing practice by refocusing the role of nurses in direct patient care. These changes have highlighted the vital role that nurses play in communication, coordination and knowledge sharing. CPOE has the potential to maximize productivity and contribute to improved patient safety and improved work environment for nurses.

Background. The impact of clinical decision support embedded in CPOE applications can have positive patient outcomes. Nurses play a critical role in care transformation and in the success of CPOE implementations. Nurses understand the cross-disciplinary workflow processes that will be impacted through CPOE implementations. Communication and collaboration are key organizational success factors in CPOE. Nursing is the hub of communication. Nurses take a holistic, 360 view of patient care, care process, workflow analysis and change management. There is significant organizational complexity in implementing such systems. In order to successfully deploy CPOE systems, transformation of care processes must occur. Nurses and nurse informaticists are key catalysts in this transformation. (Bakken, 2002)

Methods. We have utilized a purposive sample of chief nursing officers from across the US. Then we conducted a series of key informant interviews and focus groups with nursing leaders. These organizations were selected for the sample based on actual productive use/deployment of CPOE. Multiple interview formats were used with the key informants. We utilized member checking and peer review to corroborate our findings to help ensure trustworthiness of our analysis. (Crabtree & Miller, 1999).

Observations from Interviews.

“Implementing CPOE has many profound change management issues. It is critical to include nurses in the design and implementation planning so that their workflow issues are considered. If they can see and articulate the benefits to patient care, like legibility and improved communication among caregivers, they become powerful allies in facilitating adoption among physicians.”

“The planning team spent a great deal of time learning all the extra processes that nurses did to actualize a physician order prior to CPOE. We also recognized the importance of focusing on the output of CPOE to ensure that it supports effective nursing practice. Involving nursing in the process allows them to understand, use, and value the technology tools that make a difference between safe care and risky/harmful or work around care.”

“At St. Vincent's Hospital, every decision that has been made regarding our CPOE implementation effects Nursing. With each decision that has been made there were discussions about nursing workflow, nursing practice, and impact to the physician/nurse relationship. We discuss these issues much more than the impact to physicians. I cannot stress enough the value of nursing in CPOE and the need to ensure nursing is included in all decisions.”

“Our nursing staff was part of the initial phased roll out of CPOE. This built in support system has been a critical factor in driving physician adoption. “The reality is at 2 am who are you going to turn to for answers to the questions... nurses are at the center of care for the patient and can provide the insight to those questions”. “

Conclusion. Nurses are one of the key success factors in the implementation of CPOE. The preliminary results of this study point out their critical role in communication, coordination and knowledge sharing. Patient care is a team process with all members of the team making contributions in patient outcomes. The collaborative nature of care process is recognized. The larger decision-making process of care delivery in an integrated clinical system is facilitated through changes in nursing practice. Understanding communication processes is one of the keys to understanding the change management process with CPOE implementation. (Lorenzi, 2003)

References.