Title:
Electronic Medical Record Implementation as Change Management: Patient Safety

Amy Nordo
Chamberlain College of Nursing, Cary, NC, USA

Session Title:
Rising Stars of Nursing Invited Posters - Group 2
Slot (superslotted):
RSG STR 2: Friday, September 26, 2014: 10:00 AM-10:30 AM
Slot (superslotted):
RSG STR 2: Friday, September 26, 2014: 11:45 AM-1:00 PM
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RSG STR 2: Friday, September 26, 2014: 3:00 PM-3:30 PM

Keywords:
EMR, Patient Safety and Team STEPPS

References:
Agency for Healthcare Research and Quality. (2006). TeamSTEPPS™ Guide to Action: Creating a Safety Net for your Healthcare Organization. AHRQ Publication No. 06-0020-4 Agency for Healthcare Research and Quality. (2014). TeamSTEPPS™ 2.0 Instructor Manual. Retrieved from http://www.ahrq.gov/professionals/education/curriculum-tools/teamstepps/instructor/contents.html Benefield, A. (2012). EB108 staff-led innovative efforts to facilitate Team STEPPS training program in a surgical trauma intensive care unit. Critical Care Nurse, 32(2), e62. Joint Commission. (2014). National patient safety goals: hospital accreditation program. Retrieved from http://www.jointcommission.org/assets/1/6/HAP_NPSG_Chapter_2014.pdf Kohn L., Corrigan J., Donaldson M. (2000) To err is human: Building a safer health system. Washington, DC: Committee on Quality of Health Care in America, Institute of Medicine, National Academy Press. U.S. Senate Committee on Health, Education, Labor & Pensions Sub Committee on Primary Health and Aging. (July 17, 2014). Subcommittee Hearing - More Than 1,000 Preventable Deaths a Day Is Too Many: The Need to Improve Patient Safety. Retrieved from http://www.help.senate.gov/hearings/hearing/?id=478e8a35-5056-a032-52f8-a65f8bd0e5ef

Learning Activity:

	LEARNING OBJECTIVES	EXPANDED CONTENT OUTLINE	TIME ALLOTTED	FACULTY/SPEAKER	TEACHING/LEARNING METHOD	EVALUATION/FEEDBACK
	Example Critique selected definition of the term,	**Example** Definitions of "curriculum"	**Example** 20 minutes	**Example** Name, Credentials	**Example** Lecture PowerPoint presentation Participant feedback	**Example** Group discussion: What does cultural training mean to you?

	"curriculum"	Course of study Arrangements of instructional materials The subject matter that is taught Cultural "training" Planned engagement of learners				
	1. The learner will identify a Team STEPPS tool that will support a culture of teamwork	CUS, Two Challenge Rule, Brief, DEbrief or Huddle	20 minutes	Amy Nordo Rn, CPHQ, LNC	Lecture, Poster Presentation	Group discussion
	2. The learner will understand the concept of integrating Team STEPPS culture development into EMR implementation training to improve	Mutual Support, Situational Monitoring, Communication and LEadership	20 minutes	Amy Nordo RN, CPHQ, LNC	Lecture, Pster PResentation	Group discussion

	patient safety.					

Abstract Text:

The Institute of Medicine 1999 report, To Err is Human, shocked the world (Kohn, Corrigan, Donaldson, 2000). The realization that our healthcare system caused the death of patients at alarming rates was a call to action for many. The quest to find ways to mitigate risk began 15 years ago. Leaders in the patient safety field spoke before the United States Senate Subcommittee on Primary Health and Aging in July, 2014 and noted that the patient safety situation has not improved since 1999. Subcommittee Chair Sen. Bernie Sanders is working to bring the nation's attention to the fact that preventable patient deaths is still the third leading cause of death in the United States. (U.S. Senate Committee, 2014) Implementation of electronic medical records (EMR) was intended to improve patient safety, however many are questioning EMR's impact. According to Peter Pronovost, MD senior vice president for Patient Safety and Quality and Director of the Armstrong Institute for Patient Safety and Quality at Johns Hopkins, “medicine today invests heavily in information technology, with little to show for it, yet the promised improvements in safety have not been realized and productivity has decreased rather than increased” (U.S. Senate Committee, 2014, paragraph 5). Overview There are opportunities for patient safety mitigation in the use of EMRs, but the fact remains that the EMR alone cannot correct the patient safety risks that exist in healthcare today. Root cause analysis guides us to consider the equipment, the process, the management, the people, the environment, and the materials as causative factors. The root causes of patient safety risk are varied and therefore our response must be multifaceted. Implementing a comprehensive EMR will help to address some of the root causes that impact patient safety but there must be a strong culture of teamwork and patient safety in place for the EMR to be effective in preventing harm to patients. While there is consensus that the approach to patient safety must be multifaceted, the reality of implementing interventions that address a new EMR and develop a strong patient safety culture separately is daunting in the current environment of change in healthcare. While EMRs are not proving to significantly decrease patient safety risks, Team Strategies and Tools to Enhance Performance and Patient Safety (Team STEPPS) is a proven evidenced-based program that mitigates patient safety risk (AHRQ, 2006). Team STEPPS Team STEPPS is an evidenced based method based on over 20 years of research on creating a culture of patient safety and teamwork supported by the Agency for Healthcare Research and Quality (AHRQ, 2006). Team STEPPS has shown “ increased nursing satisfaction scores with teamwork from 70% (presurvey) to 95% at 3 and 6 months, improved physician - nursing communication scores from 80% to 99% at 6 months and outcome measures of zero bloodstream infections and a marked decline in other nosocomial infections for 9 months seem to suggest training success” (Benefield, 2012, p.62). Recommendation One approach to addressing patient safety risks is to incorporate improvement of the human work force population as a team concurrently with an implementation of the EMR. Increasing the scope of the EMR implementation project to include additional proven, teachable and learnable patient safety tools would increase the quality of the patient safety culture of the institution with limited additional costs. Team STEPPS provides a Master Trainer certification and provides the quality/patient safety professional with all the resources and lesson plans to institute the program at the Master Trainer's institution. One quality or patient safety professional trained in safety culture tools (Master Trainer) could train the EMR contracted trainers (CT). The additional safety culture training of the CT could be accomplished by restructuring the current training model to utilize some of the time allotted for team building or self-study, so that there would be no additional cost to the EMR implementation project. The Master Trainer in collaboration with the CTs lead a coach style training lasting approximately two days for the identified Super Users of the EMR. Throughout training the CTs will incorporate tools and skills from Team STEPPS into the existing lesson plans for the EMR, so that the delivery of the information to the end-user will be integrated. This will require approximately two hours of additional in-class time for end users. The Super Users act as a resource for the EMR and a coach for the patient safety culture. Integration of Team STEPPS and EMR Training Team STEPPS is comprised of four teachable, learnable skills: Situational Monitoring, Communication, Mutual Support, and Leadership that will lead to outcomes of a shared mental model, mutual trust, and team orientation. (AHRQ, 2014) The opportunities to practice these skills and their associated tools are available within the EMRs, but the knowledge and culture must be present that supports their use. Concurrent training on the four teachable, learnable skills of Team

STEPPS and the utilization of the EMR will result in an improved culture of teamwork, a shared mental model, mutual trust, and an EMR tool that will provide tools that will support those skills and ultimately improve patient safety. Mutual Support Mutual Support is a skill that uses knowledge and understanding of another's responsibilities and workload to anticipate and support the team (AHRQ, 2014). Employees undergoing EMR training often question why they need to learn another's role. This is intended to allow for mutual support. Team STEPPS tools such as Concerned, Uncomfortable, Safety (CUS) and the Two Challenge Rule can be taught in conjunction with the EMR responsibility of nurses acknowledging orders or pharmacists intervening on orders. The system will help the clinician to know when to intervene and the Team STEPPS tools will guide the clinician about how to intervene. For example a nurse may feel that an order is unsafe, but does not feel comfortable questioning it. Using the CUS tool, the nurse can communicate to the provider that she feels Concerned, Uncomfortable, and feels that this order is a patient Safety issue. Situational Monitoring Situational Monitoring is the skill of constantly assessing our environment in order to be aware of when a team member may benefit from mutual support (AHRQ, 2014). In an EMR, multiple people can access an individual patient's chart at once. This allows for cross monitoring, a tool from Team STEPPS that allows teams to share the workload to reduce or prevent errors. EMRs have multiple features that allow for cross monitoring such as in the pharmacists verification queue or the ability to access any patient's chart you might be cross covering, such as when the assigned nurse is traveling with her other patient or is on break. Situational monitoring will lead to a shared mental model among team members. Communication Communication is a key factor in patient safety. “Communication failures are the leading cause of preventable deaths” (AHRQ, 2006, p. 7). Computerized Physician Order Entry (CPOE) was created to improve communication. EMRs also facilitate medication reconciliation at every transfer of the patient in alignment with the National Patient Safety goals (Joint Commission, 2014). The key to communication is that it be clear, concise, and timely. Additional Team STEPPS tools can be taught to produce this, such as creating Situation, Background, Assessment, Recommendation (SBAR) as a nursing note template or the check back system that occurs with medication messages sent from nursing to the pharmacy. End users often assume that the EMR will replace the need for communication. The EMR was never intended to replace communication but to support it. Reinforcement of the EMR as an added tool in communication is necessary. Leadership Leadership is the ability to coordinate the activities of a team and to ensure that they have the resources to accomplish the goals needed to reach the shared mental model. Leaders need direct feedback from the team. The reporting capabilities of the EMR allow for valid, reliable data to be brought back to the teams during Briefs, Huddles, or Debriefs. CTs can incorporate training on these concepts utilizing Team STEPPS principles. Conclusion Teamwork skills are teachable, learnable techniques that have been effectively taught through the Team STEPPS program for more than 20 years. Integrating the Team STEPPS concepts into EMR implementation will provide a strong foundation for teamwork development using a cost conscious delivery. The integration of the patient safety focus into the EMR training is the first step towards a cultural change of developing a shared sense of urgency and need. Together EMR training and Team STEPPS will create a culture of patient safety.