Utilization of the EHR to Ensure Safe Patient Care

Stephanie Meade, RN, MSN, NEA-B.C.
Executive Director of Patient Care Services, The Christ Hospital, Cincinnati, Ohio

The Christ Hospital

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Problem

As patients transfer from one unit to another or leave the unit for tests, there is the real problem of incomplete information transfer with missed medications or treatments. The Institute for Healthcare Innovation (IHI) has identified safe patient handoffs for a nationwide initiative.

Background

The American Society of Post Anesthesia Nurses (ASPAN) was the only group with guidelines for what should be in a handoff from post anesthesia care to a surgical care nursing. These guidelines could be applied to other forms of patient transfer handoffs.

The Christ Hospital, had just gone live with Epic, an electronic medical record (EMR) that had the capability of generating three different handoff reports depending upon where the patient entered the system. These 3 reports had quite different information and no single report was satisfactory.

We wanted to use an electronic handoff report (EHR) to supplement the verbal handoff report (VHR) to standardize all patient handoffs. To do this, a team of 18 nurses and informatics specialists met with the goal of creating the EHR.

Purpose and Design

A 3 phase prospective descriptive study was completed over a year. Phase 1 was a baseline survey of all nurses to determine baseline knowledge of ability of EMR to generate electronic handoff reports (EHR) instead of relying on verbal, faxed or written handoff reports (VHR). Phase 2 used the results to design education to improve staff ability to access the reports and find information. Phase 3 based on survey results and the ASPAN guidelines, the tool was revised engaging staff nurses in the process. A single report was developed for all handoffs.

Phase I Results

One ED and one PACU nurse devised the Survey Monkey questionnaire that was completed by 289 nurses. Findings include:
• 72% knew EMR could create a handoff report
• 41.6% thought it was beneficial to have an EHR in place of a VHR
• 57% felt they needed more education to use the EHR
• 74.8% still wanted to talk to a nurse about the patient care
• Open ended comments provided direction to the task force.

Phase 2 Results

An education module that covered the importance of a safe handoff and EHR capabilities was placed on the intranet and 1071 of the 1131 nurses (95%) completed the educational module. Selected staff resurveyed regarding education with 95 respondents.
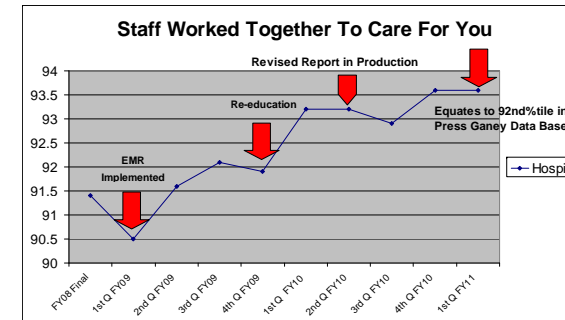
Phase 3 Results

Based on survey results and the ASPAN guidelines, the tool was revised engaging staff nurses in the process. A single report was developed for all handoffs. A focus group of 24 nurses tested the tool. Staff (68.5%) attended training on the new report. Staff were then surveyed a third time.
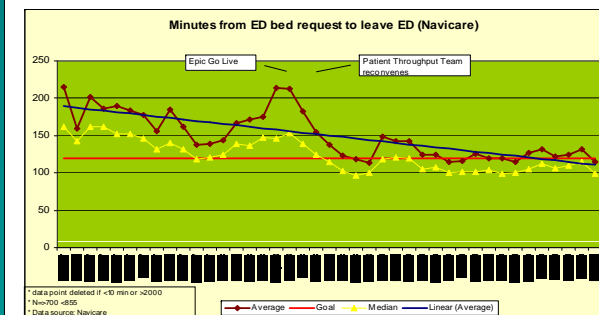
Comparisons

The EHR improved ability to prepare for the patient's arrival increased from 67 to 87.5%. Most (77.6%) felt the handoff report was easy to use, clear & concise (74%), and it was beneficial for the patient care (80%). Results improved on all survey measures from phase 2 to phase 3.

Impact on Outcomes

Over the course of the study, patient satisfaction with who well staff worked together increased by 3%.

Staff Worked Together To Care For You

A very impressive outcome was in the throughput, or length of time from a bed request from the emergency room (ER) to the time that a patient left the ER. The mean time was reduced by half.

Minutes from ED bed request to leave ED (Navicare)

Pneumonia core measures improved as patients received appropriate care quicker with the new electronic handoff report.

PN - Pneumonia All-or-None Bundle

	Site Value	Site Percentile	Num	Den
2010	93.88%	75%	92	98
2009	91.79%	79%	179	195
2008	79.41%	43%	162	204

Impact on Outcomes

Acute MI All-or-None Bundle compliance improved to 100% as the patients handoff report was implemented HF measures also improved.

AMI – Acute MI All-or-None Bundle

	Site Value	Site Percentile	Num	Den
2010	100.00%	>95%	260	260
2009	98.73%	80%	543	550
2008	93.09%	53%	512	550

HF - Heart Failure All-or-None Bundle

	Site Value	Site Percentile	Num	Den
2010	99.22%	84%	506	510
2009	98.68%	91%	898	910
2008	87.85%	53%	687	782

Impact on Practice

• The EHR has been adopted for all patient transfers.
• Engagement of staff led to project success.
• At the final survey more than 50% reported frequent (>75%) use of the EHR for initial admissions and transfer reports and 33% of nurses used it for shift report.
• Plan to incorporate SBAR into the Hand-off Report
• Plan to use the EHR for physician and other professional staff handoffs.