Title:
Clinical Decision Support for Fall Risk Assessment and Plan of Care

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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
Slot (superslotted):
RSG STR 2: Friday, September 26, 2014: 3:00 PM-3:30 PM

Keywords:
clinical decision support, patient falls and quality improvement

References:
Boushon, B., Nielsen, G., Quigley, P., Rutherford, P., Taylor, J., Shannon, D., & Rita, S. (2012). How-to guide: Reducing patient injuries from falls. Cambridge, MA: Institute for Healthcare Improvement.

Learning Activity:

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

		materials The subject matter that is taught Cultural "training" Planned engagement of learners				
	1. The learner will be able to compare process outcomes for falls documentation of a quality improvement project using clinical decision support.	Clinical decision support tools for fall prevention, Project aims related to process outcomes, Methods and data sources, Results, Discussion	10 minutes	Kay Lytle, MSN, RN-BC	Poster presentation	Discussion: Which process outcomes related to falls documentation improved and which did not?
	2. The learner will be able to compare the clinical outcomes of a falls-related quality improvement project using clinical	Project aims related to clinical outcomes, Methods and data sources, Results, Discussion	10 minutes	Kay Lytle, MSN, RN-BC	Poster presentation	Discussion: What clinical outcomes were measured and what were the results?

	decision support.					

Abstract Text:

Patient falls are the most frequently reported adverse event for hospitals. Employing clinical decision support (CDS) tools in the electronic health record can be a key strategy to reduce patient falls. This quality-improvement project involved 16 adult inpatient units at Duke University Hospital and used CDS as an intervention to document fall risk assessments and, for patients at high risk, fall prevention plans of care. Goals of the project included 1) improving documentation of fall risk assessments upon patient admission and every 12-hour nursing work shift, 2) improving documentation of fall prevention plans of care for high risk patients, 3) assessing nursing staff satisfaction to determine acceptance of the computerized fall risk program, and 4) improving clinical outcomes by reducing patient falls and patient falls with injury.

The CDS tools for fall prevention included three features: 1) an “admission documentation incomplete” fall risk assessment indicator, 2) a “shift documentation incomplete” fall risk assessment indicator, and 3) a “rules-based alert” for patients at high risk for falls and not on a fall prevention plan of care. This fall-prevention related CDS was implemented as part of the Epic Systems EHR in June 2013. Pre and post data were compared using quarterly audits, retrospective chart review, safety reports, alert action data, falls and falls-with-injury rates, and focus groups. At the start of the project, one medical unit and one surgical unit were performing below the target 90% documentation compliance rate for fall assessments and plans of care; these two units were selected for retrospective chart review relative to documentation of the fall risk assessments and fall prevention plans of care. These two units were also selected for review of alert action data in the post-CDS period and focus groups to evaluate nursing staff satisfaction.

Documentation of fall risk assessments on the 16 units improved significantly according to quarterly audit data ($P = .05$), while documentation of the plans of care did not. Retrospective chart review on two units indicated improvement for admission fall risk assessment ($P = .05$) and a decrease in the documentation of the shift plan of care ($P = .01$); one unit had a statistically significant decrease in documentation of plans of care on admission ($P = .00$). Examination of safety reports for patients who fell showed all patients pre and post CDS had a fall risk assessment documented. The care plan alert resulted in application of the care plan template in only 2-2.5% of the trigger instances. Falls and falls with injury did not change significantly pre and post CDS intervention. Staff viewed the shift fall risk assessment reminder as most helpful and the admission reminder as somewhat helpful. Several staff reported not having seen the care plan alert.

Documentation of fall risk assessments upon patient admission and documentation of a fall risk assessment every 12-hour nursing work shift improved. Documentation of fall prevention plans of care for high risk patients did not improve and in some cases was less compliant post-CDS. Nursing staff satisfaction with and acceptance of the fall risk program was adequate. Clinical outcomes were unchanged as evidenced by no change in patient falls and falls-with-injury rates.

Improvements were seen in the documentation of the fall risk assessment. Overall, the implementation of reminders and alerts had mixed results. Further investigation of the differences in CDSS usage by nurses and improvements in processes and outcomes across sites is needed.