Organization:
Meritus Medical Center, Hagerstown, Maryland

Solution Title:
Routine Vital Sign Protocols: Putting Evidence-Based Practice into Motion

Problem/Goal:
The problem is the risk to quality patient care with change in routine vital sign monitoring from every four hours to every eight hours is not clearly delineated. In past practice, every four-hour vital signs were integrated into the routine vital sign policy regardless of patient condition, code status, or monitor use substantiated by the concern for improved patient safety. Compliance with the every four-hour vital sign policy rendered possibly unnecessary fragmentation of patient sleep, untoward outcomes, and decrease in staff satisfaction. The increased frequency of vital signs did not contribute to an earlier recognition of adverse patient outcomes, or a decrease in critical events. A solution was sought to evaluate risk and consider the reverse of routine vital sign policy among the low risk medical-surgical, non-telemetry population and maintain patient safety.

Process:

Literature review

A review of current literature identified two articles measuring the frequency of vital sign monitoring, in the low-risk medical unit patient, and patient safety. (Mariani, Saeed, Potti, Hebert, Sholes, Lewis, and Hanley, 2003) These articles centered around common diagnosis that would be encountered on low-risk medical units. Their conclusion determined that the rigorous vital sign monitoring did not improve patient outcomes, survival rate, or progression of disease. Further findings revealed that the increased frequency of vital sign monitoring was not cost-effective and was actually counterproductive management of nursing resources. (Potti, Panwalker, Hebert, Sholes, Lewis and Hanley, 2006) In addition, the concluding recommendation was for the monitoring of vital signs to be no more than every eight hours, in the low-risk patients. Further, current literature also identified that too frequent vital sign monitoring lead to the untoward outcomes of endangerment to the Circadian Cycle leading to lowered ability to resist infection as well as slower recovery from illness; and, decreased cognitive functioning in the geriatric population with sleep disruption (Caple and Grose, 2012).
Routine Vital Sign Pilot

This project presented the literature review to the Hospital, Nurse Practice Council, and following the review of the Institutional Internal Review Board (IRB), and a six-week pilot project launched. First, a one-on-one focus group was held with physicians who admit to the patient care unit included in the project. Critical events were defined as Rapid Response Team (RRT) calls during the time frame of the project. A pre-post seven-item survey and implemented to evaluate nurse staff satisfaction with vital sign frequency change. Vital Touch System calculated call light frequency and response times. Also, a six-week retrospective chart review of vital sign frequency and critical event data was completed at the end of each 12-hour shift. Unit manager collected qualitative responses from patients and or family. Survey Monkey, 2013, managed and analyzed data. Descriptive statistic analysis was performed.

Solution:

Findings from this project were presented to the Hospital and Nurse Practice Council. A vote was taken and a motion as passed to change routine vital sign monitoring for every four-hours to every eight-hours in the low risk patient. The Low Risk Patient Assessment-Re-assessment Policy was established. Policy was then taken to medical executive committee for their final approval. Low Risk Patient Assessment-Re-assessment Policy is expected roll out to other units is November 2014.
Measureable Outcomes of Pilot:

Pre-pilot survey

How meaningful is your work with vital signs every four hours?

- Extremely: 52%
- Very: 34%
- Slightly: 0%
- Not at all: 14%
With vital signs changing to every 8 hours, will this improve patient satisfaction?

- YES
- NO

0%

100%

Will changing vital signs to every 8 hours help you perform your job more efficiently/effectively and keep the patient safe?

- YES
- NO

6%

94%
Post-pilot Survey

How meaningful is your work with vital signs every eight hours?

- Extremely: 65%
- Very: 31%
- Slightly: 4%
- Not at all: 0%

With vital signs every 8 hours, have you performed your job more efficiently/effectively and kept the patient safe?

- Yes: 91%
- No: 9%
With vital signs being changed to every 8 hours, have you seen an increase in patient satisfaction?
Sustainability:

This project confirms findings in existing literature. Also consistent with existing literature, improvement in nurse staff satisfaction is confirmed with change in frequency of routine vital signs by identifying time management as a primary driver of satisfaction. Exploration of increase in call light response time outcome is indicated. Additionally, further confirmation improvement in patient satisfaction related to decreased disruption of night sleep is required.

Re-evaluation of critical events and patient outcomes in relation to decrease in vital sign monitoring will be completed six months following house wide implementation of the Low Risk Patient Assessment-Re-assessment Policy.

Role of Collaboration and Leadership:

Shared Leadership Unit Council involvement led to positive outcomes that resulted in patient safety, decrease in call light use, and improved nursing satisfaction. Bedside nurses and assistants were key drivers into success of the pilot due to intense data collection and passion to make changes in routine vital sign policy. Physician support and continued buy-in brought a unique perspective into the overall project with no negativity voiced. Nursing leadership provided guidance through communication of events via Nursing Research and Evidenced Based Council.

Innovation:

Evidenced-based practice project exhibited a patient centered theme that utilized best practices to create improved nursing environment with no risk to patient safety. Nurses were empowered to use critical thinking skills, judgment, and autonomy to determine more or less vital signs based on patient condition and not rigid time intervals. All levels of nursing and physicians worked together to ultimately benefit patient care.

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References:

