Sigma’s 30th International Nursing Research Congress

New Technology to Prevent Patient Falls

John V. Renzi, DNP
Mary Beth Edger, DNP
Department of Nursing, Thomas Jefferson University Hospital - Jefferson Methodist Hospital, Philadelphia, PA, USA

Purpose: Hourly rounding is an evidence-based practice intervention to increase patient satisfaction and decrease serious adverse patient events, such as falls. It is cemented in our Nursing Hourly Patient Rounds policy with the goal that nursing staff will consistently address pain, positioning, personal needs, and the environment during each encounter. However, while the benefits to hourly rounding are clear and well supported in the literature, it is challenging for institutions to monitor the consistent completion of this practice. Inconsistent hourly rounding can lead to delayed toileting, patients trying to ambulate without assistance, and an increase in call light activation, which are key drivers related to patient falls. When the Surgical Unit was scheduled for major renovations, the care team recognized their opportunity to utilize innovative, patient-centered technology to ensure consistent hourly rounding and prevent serious harm, without requiring additional work by the nursing staff outside of their normal workflow.

Methods: The unit installed an electronic whiteboard system (EWS) in each patient room- a technology that replaces traditional whiteboards with 40-inch, liquid crystal display (LCD) monitors. Components include-staff pictures that identify the patient's daily assigned care team, goals, comments, discharge instructions, diet, and schedule/activities for the day. Custom backgrounds created to enhance the patient experience include scenic and holiday images, and birthday images. The staff wear battery-operated badges, which interact with the EWS. When staff enter a room, their picture appears on the electronic whiteboard, identifying staff presently in the room. A time stamp appears on the electronic whiteboard once staff exit the room.

Results: The EWS, which was designed by a multidisciplinary team to serve as a communication link between patients and their healthcare team, provides a color-coded visual reminder for the purpose of hourly rounding. The completion of hourly rounding is verified by the appearance of a green indicator dot on the central electronic whiteboard. After 45-minutes, the indicator dot turns yellow, prompting staff to prepare for rounds. If a round is missed, the indicator dot will turn red after 15-minutes. All disciplines can visualize the central monitor, which informs them of the patient's fall risk level, resulting in a multidisciplinary approach to falls prevention. The EWS is an interactive, innovative way to enhance communication with patients and the interdisciplinary teams, while engaging patients and their families in their care. The EWS is interactive and enjoyed by patients, as proven through positive Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) surveys.

Conclusion: Patient falls in hospitals continues to be a challenge for the nursing profession. Our organization purchased innovative technology that helps prevent patient falls and improves quality outcomes and patient safety, while enhancing the patient experience. The implementation of the EWS has greatly improved the incidence of patient falls and safety on the Surgical Unit. The number of falls per 1,000 patient days decreased from 11.17 in June 2016 to 0.00 in July 2017. The rate for falls with injury decreased from 5.59 in June 2016 to 0.00 in only one month, and has held at zero for more than 12 months.

This provides strong evidence for the effectiveness of hourly rounding to prevent adverse patient outcomes and what can be achieved when hospitals blend new technology with robust, traditional practice.
Title: New Technology to Prevent Patient Falls

Keywords: Patient falls, electronic whiteboard and hourly patient rounding

References:


Abstract Summary: Hourly patient rounding is an evidence based practice intervention used to decrease patient falls. The implementation of an electronic whiteboard system (EWS) can decrease falls through enhancing hourly patient rounding in the acute care setting. Falls were reduced in the surgical unit from 11.17 in June 2016 to zero in June 2017.

Content Outline:
I. Introduction
A. Hourly Patient Rounding
B. Falls Prevention in the Acute Care Setting

II. Body
A. Hourly Patient Rounding
1. Evidence-based practice intervention to increase patient satisfaction and reduce adverse events
   a) Addresses the four P's (pain, position, potty, and placement of personal possessions
2. Inconsistent practices can lead to delays in patient care
   a) Delayed toileting, patients ambulating without assistance, increase in call bell activation
B. Patient Falls in the Acute Care Setting
1. Patient falls affect hospitalized patients and compromise patient safety and quality outcomes
a) Leading cause of fatal injuries

b) Increases healthcare costs and hospital length of stays

2. Falls Data

a) Falls in the acute care setting occur in 44% of hospitalized patients

b) The total number of falls with injury is predicted to reach over 17 million by 2020

C. Electronic Whiteboard System (EWS)

1. Innovative technology to help prevent falls and improve quality and safety in the acute care setting

a) Increases staff accountability for hourly patient rounding

b) Designed by a multidisciplinary team to serve as a communication ling between patients and their healthcare team

2. Interactive electronic system

a) Staff wear battery-operated badges that interact with the EWS and electronically documents hourly patient rounding

b) Indicator dots turn colors (green, yellow red) to act as a visual reminder to perform hourly patient rounding

III. Conclusion

A. The implementation of the EWS has greatly improved the incidence of patient falls and safety in the acute care setting

B. The number of falls per 1,000 patient days decreased from 11.17 in June 2016 to 0.00 in July 2017

C. The rate for falls with injury decreased from 5.59 in June 2016 to 0.00 in only one month and has held at zero for more than 12 months

First Primary Presenting Author

Primary Presenting Author
John V. Renzi, DNP
Thomas Jefferson University Hospital - Jefferson Methodist Hospital
Department of Nursing
Nurse Manager
Philadelphia PA
USA

Author Summary: John Renzi is the nurse manager of the surgical units at Jefferson Methodist Hospital. John received his nursing diploma from Methodist Hospital School of Nursing in 2005. In 2011, John received is Bachelor's of Science in Nursing from Immaculata University. John attended Grand Canyon University and received his Master's of Business Administration and Master's of Science in Nursing in 2014. John received his Doctor of Nursing Practice Degree from Grand Canyon University in 2018.
Author Summary: Mary Beth Edger received her Bachelor's of Science in Nursing Degree from Holy Family University in 1978. In 1986, Mary Beth received her Master's of Science in Health Administration from St. Joseph's University in 1986. In 2009, Mary Beth received her Master's of Science in Nursing from Thomas Jefferson University. Mary Beth received her Doctor of Nursing Practice degree from Thomas Jefferson University in 2018.