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RESEARCH PRESENTATIONS**

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Improving Communication with Intubated Adult Patients

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Utilization of a “Rounds Checklist” to Improve Communication Amongst Providers and to Identify Different Priorities in Patient Care

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Nurse Driven Fluid Responsiveness Evaluation in Septic Shock

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Title: MRICU SPEACS: Improving Communication with Intubated Adult Patients

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Introduction: Mechanically ventilated patients are unable to communicate. The purpose of this project was to enhance communication between newly nonverbal patients who were intubated and their caregivers by using the Study of Patient-Nurse Effectiveness with Assisted Communication Strategies-2 (SPEACS-2) program. The SPEACS-2 program consists of an online communication class for nurses and a collection of communication tools to be used with the patient. The training includes the use of a pathway, so the nurse can determine which methods are suitable for the patient's abilities and preferences.

Methods: This project was modeled on published reports of programs that were implemented locally and nationally. The clinical nurses were invited to participate through unit huddles and email communications. Patients were invited to participate at the bedside if they met inclusion criteria (mechanical ventilation with endotracheal tube or tracheostomy tube in a room in the medical-respiratory intensive care unit (MRICU), RASS between -2 to +2). The nurses who completed the education received one continuing education credit.

Results: Ease of Communication Scale (ECS) scores from intubated patients were obtained during a brief patient interview. This tool is a ten-item Likert scale that assesses the patient's perceived difficulty in recent communication attempts. Pre-implementation scores averaged 27.9, and improved to an average of 24 post-intervention, with a *p*-value of 0.25, so the improvement was not statistically significant.

Conclusion: The SPEACS-2 program can successfully be implemented to improve patient-reported ease of communication. Clinical nurses can use the SPEACS-2 program to facilitate effective communication with their intubated patients, which can improve patient satisfaction with care provided and decrease nurse frustration.

Title: Utilization of a “Rounds Checklist” to improve communication amongst providers and to identify different priorities in patient care.

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Introduction: Checklists and care bundles, such as the Society of Critical Care Medicine’s ICU Liberation (A-F) Bundle, have consistently shown improved clinical outcomes in intensive care units (ICUs). Despite this, basic aspects of care for a complicated critical care patient are sometimes overlooked. This may lead to prolonged sedation, immobility, or hospital acquired infections. Our primary goals were to identify which aspects of patient care are more readily addressed by nurses or providers on rounds, and to improve communication among the multi-disciplinary care team.

Method: Providers and nurses collaborated to create a checklist of aspects of patient care that should be addressed during daily rounds; this included assessments of nutrition, thrombosis prophylaxis, mobility, sedation targets, family communication, invasive devices, and disposition. Each morning, the checklist was provided to the bedside RN to complete during rounds. The completed checklists were then collected by nursing leadership after rounds. Nurses received education on the use of the checklist via email, staff meetings and shift huddles, and daily during the disbursement of the checklist. The checklist was implemented in the Medical ICU at Hershey Medical Center for a period of one month, followed by an additional one month based on staff feedback. Checklists were completed anonymously without patient or nursing identifiers.

Results: Data was collected for a two-month period after implementation of the checklist. It showed that certain aspects of patient care were more readily discussed by nurses than providers on rounds. Discussion of indwelling urinary catheter necessity was initiated by nurses three times more often than by providers (38% v. 13%). Mobility and patient invasive devices were also more readily discussed by nurses than providers (38% v. 21% and 34% v. 19% respectively).

Conclusions: We identified three aspects of patient care that were routinely not addressed by providers on rounds: patient mobility, urinary catheter, and invasive devices. Addressing these basic aspects of care of the complicated ICU patient will likely improve patient outcomes, but may be missed by providers without nursing presence and input during rounds. The use of the checklist and the results helped to show the nursing staff the importance of prioritizing their presence on bedside rounds over most other tasks. For providers, the checklist and resulting data served as a reminder to address commonly-missed aspects of patient care during rounds, and to notify each bedside nurse before rounding on their patients.

A Nurse-Driven Fluid Responsiveness Evaluation in Septic Shock

Background: Research indicates that only half of septic shock patients are fluid responsive, emphasizing a need for fluid responsiveness (FR) assessment. 2021 Surviving Sepsis Campaign guidelines recommend passive leg raise (PLR) maneuver and dynamic measures of fluid responsiveness, like pulse pressure variation (PPV), over static parameters (central venous pressure), to guide fluid administration in sepsis.

Purpose and Significance: To implement a nurse-driven evaluation of FR in adult septic shock patients utilizing PLR and PPV in a 24-bed medical surgical intensive care unit (ICU). FR evaluation utilizing dynamic measures of PLR and PPV leads to less incidence of fluid overload (FO) and associated adverse effects, such as acute kidney injury (AKI), prolonged mechanical ventilation (MV), and ICU length of stay (LOS).

Processes/ Procedures: A new nursing process was initiated for bedside fluid responsiveness evaluation using PPV post PLR. Staff education was provided through in-person training sessions. 20-week pre- and post- patient outcomes data were collected on 30 adult ICU septic shock patients to evaluate the impact of the project on the incidence of FO, AKI, duration of MV, and ICU LOS. Pre- and post- staff satisfaction survey was administered to identify nurses' perception of the project value to the quality of care for septic shock patients.

Recommendations: Pre-data demonstrated that more than half of the patients (64%) met criteria of FO emphasizing the need for this initiative. The project resulted in a statistically significant decrease in incidence of FO from 64 to 37% ($P=.02$). The survey revealed a statistically significant improvement in satisfaction with care quality of septic shock patients and nursing ability to advocate for them. 100% of nurses agreed that the new process is efficient. The study results indicate a positive impact of FR assessment on patient outcomes and nursing practice.