"Turning Tuesdays": A Skin Injury Prevention Audit Tool

Sarah Laird, Helene Fuld Fellow in Patient Care Quality and Safety, Johns Hopkins University School of Nursing BSN Candidate
Dr. Judy Ascenzi, DNP, RN, CCRN
Johns Hopkins Hospital, Pediatric Intensive Care Unit

Background

The main purpose of the Skin Injury Prevention quality and safety improvement project for the Pediatric Intensive Care Unit (PICU) at Johns Hopkins Hospital was to develop and implement a skin care audit tool designed to assess skin injury risk and prevalence in the pediatric critical care population. Preventing skin injury in the pediatric intensive care population is an important responsibility of the nurses care for a patient as highlighted in a 2006 study performed by Noonan, Quigley and Curley for three reasons. First, when a patient is immobile and physiologically unstable he or she is at an increased risk for skin breakdown. Second, specific therapies and medical device placement, deemed necessary for the care of patient, can contribute to skin breakdown. Third, the cost of skin breakdown in a hospitalized patient is immense in both the context of the actual financial cost to the hospital and the additional suffering of the patient.

The decision to build this project came from inconsistencies in Braden Q score documentation completed by the unit nurses. The Braden Q Scale, developed by Quigley and Curley (1996), is a widely used, valid, and reliable pediatric-specific pressure ulcer risk assessment tool. This scale is so effective it has been built into the hospital’s medical charting system as a necessary nursing documentation site under Treatments and Cares within each patient’s medical charting document. The inconsistent documentation sparked further conversation regarding proper use of skin injury prevention interventions.

PICU nurses have a list of interventions and access to materials that can be used if a patient is determined to be at high-risk of skin injury based on his or her Braden Q score. Some of these interventions include:

- A two-hour turning schedule
- Use of heel protectors or a method to elevate heels off of the bed
- Use of Z-flo (a fluidized positioner aid that can mold to the shape of a patient’s body for pressure relief and is offered in two different sizes: 7x10 inches for the head or 25x36 inches for larger body surface areas).

Unfortunately, within the medical chart, these interventions are not documented in the same place and sometimes are not documented at all. Insert the need to unite the Braden Q documentation with specific intervention documentation in order to track the care of the high-risk patient.

Methods

Although each PICU patient is at risk for skin injury, a smaller, more specific population within the unit was identified as being at high-risk for the important purpose of providing a focused population to study. A “high-risk” patient was defined as any patient on a ventilator.

The audit tool was designed using Veragesolutions™ software to unite the documentation of the Braden Q scale and the documentation of the extra measures that can be taken on unit to further skin injury prevention. The tool begins with the nurse completing a Braden Q scale for his or her patient as a means of generating a risk score for each ventilated patient. The Braden Q scale can effectively predict the level of risk a patient has for skin injury, which would then help prompt the nurse to take extra measures for skin injury prevention depending on the patient’s score. These extra measures included:

- Use of diaper rash prevention creams as suggested by the electronic chart’s diaper rash prevention algorithm
- A two-hour turning schedule (repositioning the patient every two hours)
- Rotation of the O2 saturation probe once a shift
- Use of heel protectors or a method to elevate heels off of the bed

Additionally, specially surface intervention compliance was specifically analyzed for the ventilated patients who received a Braden Q score of 18 or less which qualified them as at the highest-risk for developing pressure ulcers. These interventions included:

- Use of Z-flo
- Use of special mattress

The audit tool was sent out to each nurse on the unit at the beginning of a Tuesday evening shift. Each nurse was able to access the audit through his or her hospital email but only had to fill out the audit if his or her patient was on a ventilator. After completing a Braden Q scale provided within the tool, nurses were given three answer options within the audit tool when asked about the use of the extra measures mentioned above:

- Yes
- No
- Non-Applicable

Results

The goal of the compliance bundle data will continue to be one of improving the use of interventions in the care of critical pediatric ICU patients as a means of preventing unnecessary skin breakdown in the vulnerable pediatric patient.

The project will aim to post monthly compliance reports related to the interventions discussed within the audit tool as a means of encouraging nurses to use the interventions available to them.

Ideally, the project would move from collecting monthly prevalence data to collecting weekly incidence data headed up by a special PICU skin care team. These data collection along with the creation of a special skin care team would become an issue of staffing and funding. Until these issues are overcome, the study will continue with the quarterly point prevalence model.

References

