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Customizing a Pressure Injury Bundle Based on Unit-Specific Data

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Customizing a Pressure Injury Bundle Based on Unit-Specific Data

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Background

Pressure Injury (PI) is a source of morbidity for pediatric patients and is considered a nurse sensitive indicator. In the pediatric population, devices are a significant source of PI, yet the recommended prevention bundles do not adequately address device-related injuries. In addition, literature regarding effective means of reducing PI in pediatric patients is lacking.

Analysis of PI data for the Children's Mercy Hospital Pediatric Intensive Care unit (PICU) from 2014 to 2017 demonstrated 76% of PI \geq stage 2 were caused by devices. Pulse oximetry probes (the single device addressed by the current bundle) accounted for less than 4% of the device related injuries, with only one documented in the past two years. Independent projects have decreased the number of device-related PI caused by specific pieces of equipment, but despite high reliability to the bundle, device-related PI continue to occur in our PICU. In order to continue decreasing the PICU rate of PI, a new strategy was needed.

Methods

Members of the unit-based PI team worked together to develop a new bundle specific to the types of injuries prevalent in the PICU. Data from the past several years was combined with team member expertise to create a customized PI bundle. The new bundle is comprised of selected PI reducing interventions which address the types of injuries which the data indicated were prevalent in our PICU patients. Specific device-related strategies were included, as well as a few interventions addressing pressure related PI. It is formatted as a user-friendly auditing tool which can be completed by any PICU nurse.

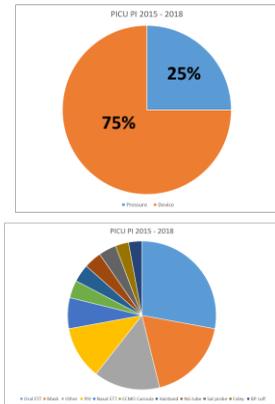
The primary outcome measure is the PICU PI rate, reported monthly as the number of PI per 1000 patient days. Process measures include assessment of compliance with all elements of the PI bundle. As with other bundles, all components must be completed to be considered compliant. Balancing measures include an increase in PI caused by pressure or devices not addressed by the new bundle.

Results

Bundle compliance with the original bundle has consistently been > 90% since Jan 2016 other than occasional dips due to intermittent lower compliance with various components. After implementation of the new bundle in July 2018, compliance has decreased significantly with a compliance rate of 15% in July 2018 and 7% in August 2018. The actual components missed also vary significantly, which may indicate the new K-card is capturing opportunities for improvement in our processes. The current 2018 rate of PI \geq stage 2 is 2.02. It is too soon to appreciate a difference in the overall rate of PI, however, we would anticipate a decrease in the rate as bundle compliance improves.

Conclusions

The significant drop in bundle compliance noted with the introduction of the new bundle was anticipated and suggests new areas of focus to reduce PI. Elements missed most frequently in the audits will drive future PI prevention projects. Additionally, encouraging direct caregivers to participate in bundle audits will enhance awareness and understanding of additional PI prevention measures to implement. The expected outcome is for the rate of PI to continue to decline as the rate of bundle compliance improves.



OLD

Pressure Ulcer Prevention Bundle
Place a check in the box if the answer is "yes" to the questions below.

Skin Assessment

Was skin assessment completed in last 12 hours?

Skin Risk Assessment

Was a skin risk assessment completed on the current or previous shift?

Device Rotation

Are you rotating your pulse oximeter at least every 8 hours?
• Place check if pulse oximetry is not in use.

Repositioning

Are you repositioning your patient every 2 hours (unless ICH, then with each assessment)?
• Place check if patient repositions without assistance.

Appropriate Support Surface

If your patient requires a special mattress or positioner, is it currently being used or on order?
• Place check if patient does not require special bed surface.

Moisture Management

Are you applying diaper ointment after every diaper change?
• Place check if patient is not diaper-dependent.

Check if the answer is "yes" to all applicable prevention measures.

PICU Pressure Injury Bundle Reliability by Element

NEW

Pressure Injury Prevention K-Card

Date: _____

YES/NO

O2 Sat probe rotated Q 4 hrs or off when not in use.

BP cuff rotated Q 8 hrs or off when not in use.

Repositioning patient Q 2 hrs (NA if pt repositions self)

Occlude cushioned gel/foam, gel, yellow, gel padding for ECMO

Sacral heel placed correctly and labeled (NA if gt ambulatory/sacral heel not in use)

All devices padded (if not, please list what is not padded)

Periodic checks done to avoid tubes/lines underneath pt

Complete next section ONLY for patients using NV (Bipap)

NV (Bipap) mask padded with Mopilex

Mopilex applied to FACE (not applied to NW mask)

Skin under Mopilex assessed Q4 hours

NW mask alternated if possible (check YES if not possible)

(Signature of Auditor)

Please write any questions or comments on the back.

PICU Pressure Injury Bundle Reliability by Element

Working Towards Zero!

