Repositioning Guidelines to Reduce Pressure Injuries in the Pediatric Intensive Care Unit

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Background and Literature

Pediatric pressure injury (PI) is a preventable and costly global problem. Compared to adults, children have a low prevalence of PI, but it is associated with increased mortality and morbidity. Developing repositioning guidelines for children is challenging due to the limited literature on pediatric PI, making evidence-based care difficult. The Braden Q Scale is used to assess pressure risk and is recommended in PICU for repositioning guidelines. The Pediatric Braden Q Scale has been validated in a large cohort of children aged 0-36 months. This study aimed to develop hemodynamic instability criteria and repositioning guidelines for PICU patients. The proposed guidelines are based on a Delphi survey with pediatric experts, including nurses, physiatrists, and anesthesiologists, to ensure guideline relevance and acceptability. The study was conducted at an academic pediatric tertiary care center over a one-month period.

Methods

1. Conducted a Delphi survey of pediatric experts (n=12) to develop repositioning guidelines (Delphi process).
2. Risk assessment tool: Braden Q Scale (Curley et al., 2003).
3. Developed repositioning guidelines by consensus (Delphi process).
4. Established a baseline for adherence. Rate of nonadherence was 1.31%.
5. New method of adherence to the guideline (Delphi Diary).
6. Analyze diary that records patient position and time of turn to determine PICU events (96.66% adherence).
7. Used a directional increase in knowledge, facilitators, and confidence as a measure of guideline adherence.

Results

1. No PI in the study group (n=100) compared to the control group (n=100).
2. Significant improvement in knowledge, facilitators, and confidence as a measure of guideline adherence.

Conclusions

Repositioning hemodynamically unstable PICU patients is a complex intervention. 3.95% reduction in PI was observed in this study. The baseline for adherence was set at 96.66% after the Delphi process and the Delphi Diary analysis. The study illustrated that the proposed repositioning guidelines are effective in reducing PI and improving knowledge, facilitators, and confidence among PICU nurses. The guidelines are evidence-based and feasible for implementation in the PICU setting.

Key Points

1. The Braden Q Scale is a validated tool for assessing pressure risk in children.
2. Developing repositioning guidelines for PICU patients requires a multidisciplinary approach.
3. The Delphi process is an effective method for consensus-building in guideline development.
4. The repositioning guidelines need further validation and implementation in real-world settings.

References