Reducing Pediatric Morbidity Through Development of a Clinical Practice Guideline

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Abstract
Peripheral intravenous therapy is a commonly utilized treatment modality for the care of acutely ill pediatric patients. Two risk factors include infiltration and extravasation injuries. These injuries, peripheral intravenous infiltration or extravasation injuries (PIVIEs), can vary in their clinical manifestations from minor discomfort to harm as severe as loss of limb or disfigurement. Clinicians caring for patients at risk of developing PIVIEs need to be able to act quickly to reduce potential morbidity. The purpose of this project was to create a clinical practice guideline (CPG) that would guide staff intervention if a PIVIE occurs, with the ultimate goal of reducing PIVIE-related patient morbidity. An online literature review was conducted utilizing four primary databases including PubMed, Cumulative Index to Nursing and Allied Health Literature (CINAHL), MEDLINE (EBSCO), and the Cochrane Library. The initial search yielded 3412 results, with 16 studies ultimately meeting inclusion criteria. The literature was appraised and translated into the CPG. The AGREE II instrument was used to guide formatting and final appraisal of the CPG. A team of stakeholders onsite were assembled including two chairs of the existing PIVIE committee and the Wound Care RN. Stakeholders were consulted during the writing process and ultimately approved and appraised the final completed CPG. The CPG was presented and submitted for final approval to the entire multidisciplinary PIVIE committee. It is recommended to pilot the CPG on a single patient unit to monitor for barriers to implementation, tailor staff education, and evaluate the effect of implementation on patient outcomes.

Keywords: infiltration, extravasation, peripheral intravenous therapy, hyaluronidase, neonates, infants

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