Vascular access team nurses use US infrequently for peripheral IV placement, including in children with difficult access. Methods to increase its skillful use in difficult access patients and improve successful IV placements should be explored” Elkhunovich et al (2016).

Abstract:

PURPOSE: Children receiving treatment in the hospital frequently require intravenous (IV) access. Placement of short peripheral catheters can be painful and challenging especially in those children who have difficult access. Many children’s hospitals have teams of specialized vascular access nurses experienced in peripheral catheter insertion, and at times use vein visualization devices, including ultrasound (US), to assist in peripheral IV placement. Our objectives were to describe the prevalence and success rate of US-guided peripheral IV placement by vascular access team nurses at a single tertiary children’s hospital.

METHODS: We retrospectively reviewed quality assurance data kept by our institution’s vascular access team between February, 2014 and March, 2014. Data extracted included: age, gender, number of attempts, if difficult, if ultimately successful and modality used to aid IV placement. Descriptive statistics and chi-square tests were used to analyze and report data.

RESULTS: There were 1111 patient-nurse encounters reported for peripheral IV placement over a six-week period, and a total of 1579 attempts. Ultimately 84% of the patients had successful IV placement. Overall, visualization and palpation was the most frequently used technique (50.1%), followed by near-infrared light (40.6%), US (8.0%), and transillumination (1.3%). The success rate of US (60% overall and 59.2% difficult) was not significantly different from other advanced visualization techniques.
CONCLUSIONS: Vascular access team nurses use US infrequently for peripheral IV placement, including in children with difficult access. Methods to increase its skillful use in difficult access patients and improve successful IV placements should be explored.

Reference:


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