BACKGROUND

• Obtaining vascular access in children is often difficult due to smaller vein size and poor patient cooperation requiring additional resources and personnel.
• IV access is often complicated by chronic illness, obesity, edema, hypovolemia, and vascular pathology.
• Recent literature supports the use of ultrasound guidance for PIV catheterization of patients with difficult access.
• USGPIV access can decrease the number of needle sticks and time to cannulation.
• A previous study in our emergency department (ED) demonstrated successful USGPIV access training for physicians and generated interest for nursing training.

OBJECTIVES

1. To create an ED nursing curriculum for USGPIV access.
2. To evaluate first USGPIV cannulation attempt success rate.
3. To evaluate time to USGPIV cannulation.

METHODS

• Study Design: prospective, educational intervention quality improvement study.
• Setting: Texas Children’s Hospital Main Campus ED in 2016, ~85,000 ED visits.
• Inclusion Criteria: convenience sample of trauma nurses, charge nurses, and patient care managers for USGPIV access training on 11/15 & 1/16 with 2/16 refresher course emphasizing vein identification and troubleshooting.

CONCLUSIONS

• This project demonstrates successful implementation of a nursing focused curriculum for USGPIV access.
• First attempt success rate for USGPIV cannulation by ED nurses was 90%.
• Time to USGPIV cannulation was less than 7 minutes.

LIMITATIONS

• Generalizability.
• Single institution study.
• Convenience sampling.
• Availability of USGPIV access trained nurse.
• Lack of a control group.
• Reporting bias, documentation of attempts.
• Competing obligations.

FUTURE DIRECTIONS

• Expansion of USGPIV access curriculum hospital-wide.
• Evaluation of further medical provider education and dissemination across various departments and campuses.

REFERENCES


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