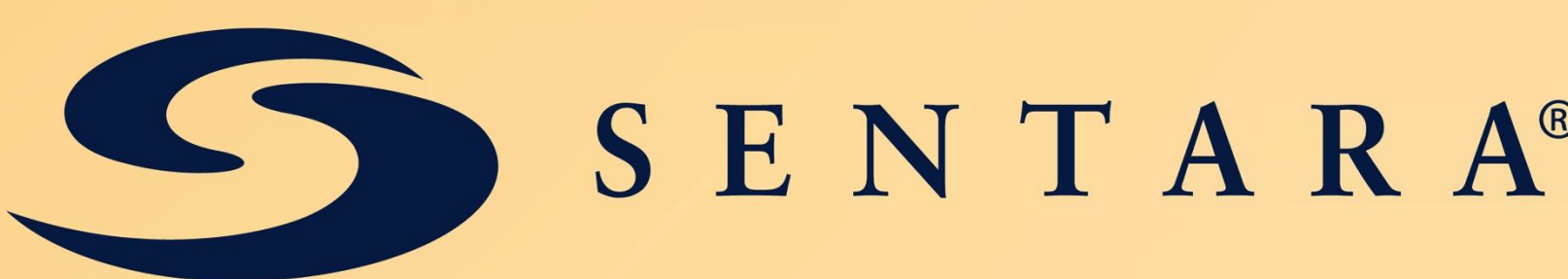




Emergency Department Ultrasound Peripheral IV Program

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BACKGROUND

- Peripheral intravenous access (PIV) is frequently difficult to obtain in the Emergency Department often leading to a delay in care, increased patient anxiety, and placement of central lines.
- Ultrasound PIV improved insertion speed and patient satisfaction with fewer skin punctures (Bauman, Brude, & Cradall, 2009).
 - Ultrasound guided PIVs can have a high placement success rate which can result in fewer central line days (Gregg, Murthi, Sisle, Stein, & Scalea, 2010).

OBJECTIVE

- To develop a system-wide ED based ultrasound guided PIV training program & competency tool to support integration of the skill and expanded scope of the Emergency Department RN and Emergency Department Technician (EDT).
- To provide patient-centered care by improving the IV insertion experience & reducing central line days.

METHODOLOGY

This quality improvement project was conducted over 1 year with real-time data collection.

Sample: Emergency Department patients that had difficult vascular access

Setting: Sentara Princess Anne Emergency Department

Data Collection: Maintained a log to track volume of IV insertions and potential negative outcomes (i.e. infiltrations)

INTERVENTION

- *In August, 2017, SPAH Emergency Department started training staff to perform ultrasound guided PIVs and track outcomes.
- *After one year, with no negative outcomes, SPAH developed an Ultrasound PIV policy that detailed a system wide training program.
- *The training program specified that each emergency room department could send staff to SPAH to get didactic training as well as hands on check-offs so that they can be super-users (trainers at their own facilities).
- *Nine emergency room across the Sentara System sent staff to SPAH for training.
- *Once deemed competent, the super-users took over the ultrasound guided training programs for their emergency room departments.



RESULTS

SPAH emergency department has 25 competent ultrasound PIV inserters.

Seven out of nine of the participating emergency room departments now have trained super-users and can train their own staff.

ZERO negative outcomes have been attributed to staff trained through this program at SPAH as evidenced by our ultrasound outcomes log.

Greater than 500 difficult stick patients that used to need central line access are now able to get ultrasound PIVs.

Skill has been expanded to meet the needs of inpatients as well. Expanding training to other specialty groups (i.e. ICU, L&D).

CONCLUSION

This Emergency Department based training program has safely & successfully been implemented across the Sentara system. Other facilities can replicate this program to provide the Ultrasound Guided PIV skill to their difficult PIV patients. Encouraging and supporting RNs and EDTs to obtain this expanded scope has also helped SPAH ED improve patient and staff satisfaction.

NEXT STEPS

Each facility that has elected to integrate this skill will need to develop a tracking and sustainability plan. As the skill becomes more well known to patients and as other specialty departments (i.e. ICU, L&D, etc.) are exposed to US Guided PIVs, there have been requests to expand outside the ED. Each facility must evaluate existing resources and decide how the skill will be managed in their area.

CONTACT

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