

Difficult IV Access in an Ambulatory Surgery Center

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Introduction

- Several factors can cause increased difficulty securing peripheral intravenous access (DIVA) in ambulatory surgery center (ASC) patients¹
- Difficult IV access can lead to higher healthcare costs, delays in care, and patient anxiety or discomfort²
- Although ultrasound guidance for peripheral intravenous catheter (PIV) placement is within nursing scope of practice, zero perioperative nurses at this site had ever received training or education to utilize this tool

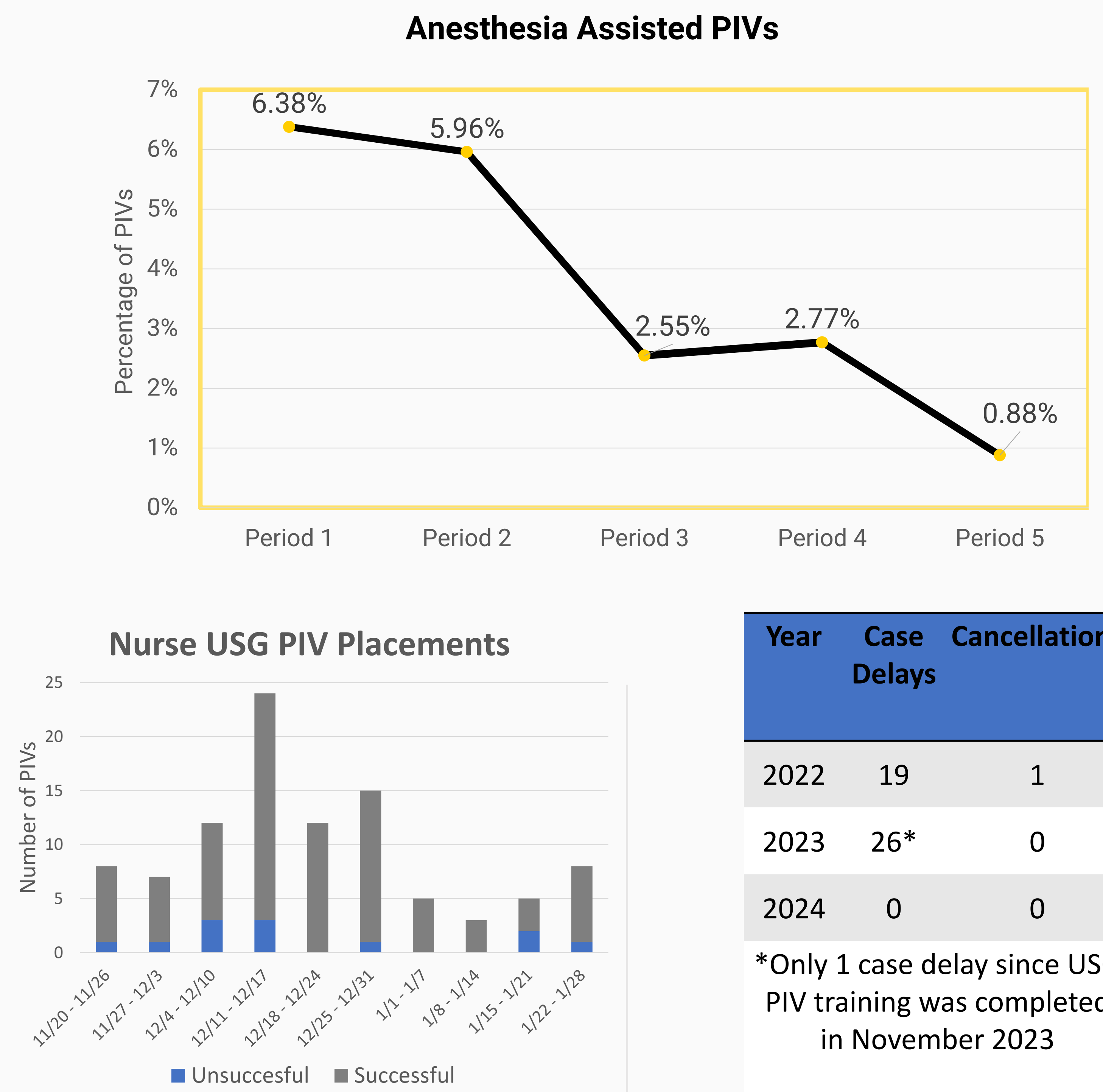
Purpose

- Purpose: Implement evidence-based recommendations for use of ultrasound guidance to place PIVs in the ASC
- Objective 1: Train nurses to competency using ultrasound guided PIV placement
- Objective 2: Achieve 95% of patients experiencing successful pre-op PIV catheter placement within ≤2 attempts
- Objective 3: Eliminate case start delays, cancellations, patient safety incidents and complaints involving PIV access concerns in the ambulatory surgery center

Methods

- Project was deemed not human subjects' research
- Population & Setting : pediatric and adult patients at a robust ambulatory surgery center
- Mastery based learning checklist developed with input and feedback for skill evaluation criteria collected using Modified Delphi Method

Outcomes



Evaluation

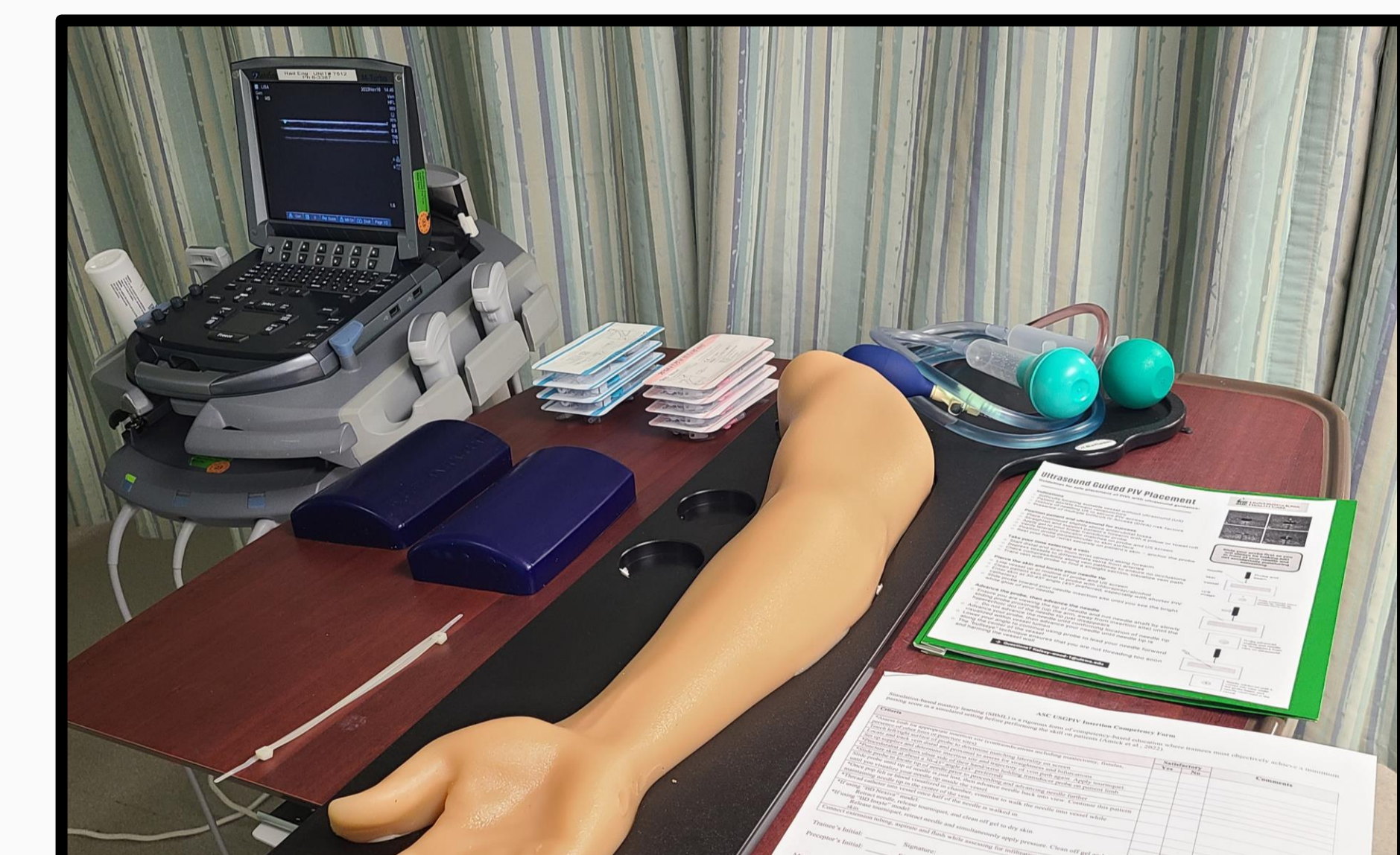
- Five nurses were initially trained to competency in USG PIV placements, and have placed 87 successful ultrasound-guided PIVs for surgical patients
- Press-Ganey patient satisfactions scores reflected a 2.39% increase in ratings for “skill of nurse starting IV” less than two months after training was completed (this is up 6.23% from pre-project scores)
- Less than 5% of ASC patients have endured 3+ attempts for successful IV placement since Fall 2022, with less than 2.5% of patients requiring 3+ attempts since November 2023

Limitations

- Time constraints and scheduling needs presented obstacles to training higher numbers of staff
- Patients not stratified based on predicted difficulty of IV access

Conclusion

- Interrater reliability established among future ASC USG PIV trainers.
- Improved patient satisfaction.
- Reduction on OR Case Delays related to difficult IV starts.



References

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