

ULTRASOUND-GUIDED PERIPHERAL INTRAVENOUS CATHETER (USGPIVC) PLACEMENT: EVALUATION OF A PILOT PROGRAM AT THE MUHC

WHAT IS USGPIVC?



- Ultrasound-guided peripheral intravenous catheter (USGPIVC) placement uses ultrasound (U/S) visualization to place a catheter in a peripheral vein.
- It is indicated for patients with difficult intravenous access (DIVA).

PILOT PROGRAM



- Trainees: 4 emergency department (ED) nurses of the Royal Victoria Hospital
- Supervisors: 1 intensive care unit nurse practitioner and 1 ED physician
- Period: June 2023 to January 2024

METHODS



- Quantitative analysis of USGPIVC procedures during pilot (n=27)
- Interviews with pilot participants to gather feedback (n=2)

RESULTS

68 % Successful independent insertions (18/27)

72 % Successful insertions under 15 minutes (13/18)

Success rates varied by nurse experience and A-DIVA score

NURSE FEEDBACK

Main challenges

1. Mastering the technique for visualizing the tip of the catheter

2. Lack of dedicated time for practice and skill retention

Recommendations

1. More simulations and hands-on practice

2. Allocation of sufficient & frequent time outside work shifts

KEY LESSONS

- Implementation is feasible with dedicated support and practice time.
- Future programs should ensure access to intensive practice.
- Given its patient benefits, further scaling of USGPIVC is warranted.