

Session 1: Difficult IV Access

Objectives:

- Define vessel health preservation (VHP)
- List six elements in vessel health
- Explain how the pathology of the stick impacts VHP
- Identify patients likely to have difficult vascular access
- Discuss the rationale for matching a patient with DVA and the skill level of the inserter
- List 5 techniques to improve first pick success for peripheral insertion

Case study

Nora Jones is an 80-year-old patient admitted to medical unit from ER. Sent to ER via ambulance from Evergreen Apartments, a retirement and independent living complex for people over 55 yrs.

Nora lives independently and actively participates in the centre's activities. She hosts a weekly bridge club at Wayne Gretzky community centre. She continues to drive and is active in her church. Over the last three days she has been complaining of 'coming down with something'. She was seen by the Evergreen in-house medical clinic. With all vital signs WNL, she was asked to return immediately if she developed any symptoms or continued to feel unwell in the next 48 hours.

The next day, today, during bridge, she became disoriented and collapsed due to severe abdominal pain. X-ray and ultrasound are negative for acute abdomen. Bladder is distended with 300 mL residual.

Preliminary diagnosis is UTI, possible sepsis and possible delirium. Orders are to start IV infusion of 0.9%NaCl at 100 mL/hr and begin Vancomycin IV 500 mg q 6 hours.

Your initial assessment:

Poor skin turgor, dry mucus membranes and sunken eyes. BP 100/50, P: 110, R: 24, T 38 C.

Blood work from ER shows: Na: 155 mmol/L; CL: 108 mmol/L, pH 7.32, Bun: Creatinine ratio 26;

Hypernatremia, respiratory acidosis (fever/sepsis); possible renal impairment (BUN:CR ratio >25)

Mentation: Nora is confused as to time and place. Knows her name and is able to relay portions of her health history. Pain score is: 7/10

Attempt to start an IV unsuccessful in ER; you ask the nurse known for IV insertion success to attempt PVAD insertion. Unsuccessful.

Her friend arrives and informs you that Jane has had multiple cancer related surgeries and received chemotherapy 3X. Mary has identified that the last few times it was difficult to find a vein.

What are the Indications for PVAD?

When would the HCP recommend CVAD for a patient where the MRP ordered a 'PIV'?

What alternative options may be considered to rehydrate and administer medications.