Point of Care Ultrasound (PoCUS)

Competency Assessment Forms

VASCULAR ACCESS

Competency G – Ultrasound Guided Vascular Access
Guidance

Please follow this guidance as closely as possible to ensure consistency between assessors. Ability to enter details, save image/clip and optimize environment only needs to be done once if multiple competencies are being assessed.

1. **"What are the core indications?"**
   e.g. any patient requiring central vascular access. Any questionable indications should be challenged.

2. **Demonstrates familiarity with the machine controls and transducer handling.**

3. **Demonstrates an ability to enter patient details as per EDPoCUS policy.**

4. **"This patient requires central venous access"**

5. **On a patient or volunteer model: "Please show me the views would you use for the internal jugular vein, common femoral vein and a peripheral vein in the arm"**

6. **For each view "Please point out the structures that you can identify and show me where you would insert the needle"**
   -Must be able to identify the internal jugular vein, common carotid artery, common femoral vein, femoral artery and at least one peripheral vein
   -Must have a recognized method for distinguishing vein from artery e.g. compressibility, etc
   -Must choose an appropriate safe needle entry site

7. **If they fail to mention any one of the above structures then ask them to identify it.**

8. **"Please talk me through the equipment that you will need, the preparation required and position the machine and patient appropriately"**
   -Describes the equipment required for central venous access, including the seldinger kit, local anesthetic, suture material, etc
   -Demonstrates or talks through the process of asepsis, including the use of sterile probe cover and sterile gel
   -Positions the machine appropriately to allow visualisation during the procedure

9. **On the vascular access mannequin: "Please demonstrate the ultrasound guided vascular access technique"**
   -Must demonstrate clear visualization of the needle on ultrasound
   -Must be able to identify the needle tip at all times
   -Should not mistake needle shaft for needle tip while advancing
   -Must successfully advance needle tip into vein and aspirate 'blood'
   -Must be able to describe the Seldinger technique

Competency G – Ultrasound Guided Vascular Access

Name:_____ **Assessor:**_____ **Date:**_____

Logged Experience: number of scans (circle)   10   25   50+   Number:_____

Experience certified as evidenced by: _____ (signed by Assessor)

Competency component	Trainer's comments	Competent?
1. Preparation for the scan *Greet the patient appropriately and identify the patient.* *Demonstrate appropriate attitude and professional manner*		
Knowledge of core indications		**Yes ❑ Prompted ❑ No ❑**
Positions the patient correctly etc		**Yes ❑ Prompted ❑ No ❑**
2. The scan Sets up the equipment acceptably Describes/demonstrates aseptic technique		**Yes ❑ Prompted ❑ No ❑** **Yes ❑ Prompted ❑ No ❑**
Probe selection, handling and scanning technique (Centres Vein accurately under probe)		**Yes ❑ Prompted ❑ No ❑**
Patient/Volunteer: Demonstrates the Internal Jugular Vein, Common Carotid Artery Identifies safe position for catheter insertion Demonstrates a peripheral veins in the arm Identifies safe position for catheter insertion Demonstrates the Common Femoral Vein and Femoral Artery Identifies safe position for catheter insertion Venous Access Mannequin: Demonstrates guidance of needle in TS (+/- LS) Ensures needle tip is visualized at all times Successfully cannulates vessel	**KEY STEP** **KEY STEP** **KEY STEP** **KEY STEP** **KEY STEP**	**Yes ❑ Prompted ❑ No ❑** **Yes ❑ Prompted ❑ No ❑** **Yes ❑ Prompted ❑ No ❑** **Yes ❑ Prompted ❑ No ❑** **Yes ❑ Prompted ❑ No ❑** **Yes ❑ Prompted ❑ No ❑** **Yes ❑ Prompted ❑ No ❑** **Yes ❑ Prompted ❑ No ❑** **Yes ❑ Prompted ❑ No ❑**
Efficiency / Speed of scan and cannulation		**Yes ❑ Prompted ❑ No ❑**
Saves/prints/documents *(As per local policy)*		**Yes ❑ Prompted ❑ No ❑**
3. Post scan Appropriate interpretation of the findings		**Yes ❑ Prompted ❑ No ❑**
Result correctly integrated into clinical scenario		**Yes ❑ Prompted ❑ No ❑**

Self Assessment (circle) : A B C	**Competency Level**	
Guide	**Level**	**Assessor (Print and Sign level)**
Virtually no prompting required	**A. Advanced / Instructor potential**	
Some prompting required	**B. Competent to scan and interpret findings independently**	
Significant prompting required and/or Any KEY STEP requires prompting	**C. Requires reassessment. If scanning alone cannot rely on negative findings**	