*This document has been provided by the ACEM and EMUGs Collaboration Working Group to assist Clinical Leads in Ultrasound in developing ED ultrasound training programs. The suggestions outlined are not required for accreditation for the FACEM Training Program. Due to the variation in size and resources available at sites throughout Australia and Aotearoa New Zealand, the guidance provided in this document may or may not be appropriate for your site.*

**Assessments:**

During a formative or summative assessment, the candidate must demonstrate the ability to:

* acquire adequate ultrasound images of all the appropriate anatomical structures;
* identify any relevant artefacts or pathology present during real time scanning and/or on recorded scans and/or hard copies of scans;
* recognise an inadequate scan; and
* demonstrate an understanding of the indications and limitations of ultrasound examination for the condition in question.
* demonstrate appropriate machine care, image labeling and documentation of their findings; and
* integrate their findings into the overall clinical picture and generate appropriate treatment recommendations if appropriate.

**Formative Assessment: (at least 2 required)**

* The purpose of the formative assessments is to directly supervise the candidate performing an ultrasound examination in order to provide feedback and guidance for ongoing self-directed learning.
* The supervisor may prompt, guide and give feedback during the assessment.
* The first formative assessment should be completed soon after commencing scanning in any given modality. The second one should occur at a later stage, at least one week apart, and not on the same day as the summative assessment.

**Summative Assessment: (at least 1 required)**

* The purpose of the summative assessment is to directly supervise the candidate performing an ultrasound examination in order to determine competence.
* The supervisor should provide minimal (if any) prompting, guidance or feedback during the examination.
* The summative assessment should be completed after at least 75% completion of the logbook and can be counted towards the logbook.
* This assessment may be undertaken simultaneously as a Direct Observation of Procedural Skills (DOPS) assessment by ACEM trainees.

# Formative and Summative Assessment Form – Procedural Guidance

|  |  |  |
| --- | --- | --- |
| **Hospital name:** | **Candidate First Name:** | **Assessor First Name:** |
| **Date:** | **Candidate Last Name:** | **Assessor Last Name:** |
| **Formative Assessment □**  **Summative Assessment □** | **Overall: Competent / Not yet competent**  **(Circle one)** | **Procedure being performed: (circle one or add ‘other’)**   * Peripheral venous access * Central vascular access * Arterial vascular access * Regional nerve block * Pleurocentesis * Paracentesis * Other: |
| **Assessor comments:** | | |

**PROCEDURAL GUIDANCE ASSESSMENT**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Component** | **Criteria** | **Not yet competent** | **Competent** | **Assessor notes** |
| **Relevant Clinical Information**Able to explain indication(s) and clinical question(s) | Indications:Venous – central & peripheral accessArterial accessArthrocentesisForeign body localisationNerve block |  |  |  |
| Questions:Vein or artery?Patent or thrombosed?Suitable for cannulation? (Straight course)Which nerve/joint?Indications/Contraindications? |  |  |  |
| **Preparation** | Verbal Informed Consent |  |  |  |
| Machine prepared (cleaned, battery charged/plugged in)Suitable positioning of patient, ergonomic machine placementLights dimmed if possiblePatient privacy & dignity maintained |  |  |  |
| **Practical Aspects**Uses machine controls appropriately | Patient demographics (3 identifiers e.g. medical record number, Full Name, DOB)Probe: linearAppropriate preset for procedureOptimisation e.g., Depth, gain, frequency, focus (if available)Image labelling (optional)Image acquisition (optional) |  |  |  |
| Procedural considerations | Correctly applies probe cover and uses sterile gel.Performs pre-scan and identifies relevant sonoanatomy in relation to target structure.Performs procedure under real time needle guidance (in-plane or out-of-plane.) Needle tip advances only under guidance.Angle of insonation as perpendicular as possible to needleCompletes procedural steps |  |  |  |
| **Image Acquisition**Able to recognise the following | Normal anatomy including: vein, artery, bone, muscle, fascia, nerve, tendon |  |  |  |
| Distinguishes tip of needle from the shaft |  |  |  |
| **Artefacts**Able to recognise common artifacts | Edge artefact |  |  |  |
| Reverberation artifact from needle |  |  |  |
| Anisotropy |  |  |  |
| **Post Procedure Care** | Ensures patient comfortDisposes of equipment safelyCleans / disinfects probe and machine as per local guidelinesReturns machine to storage area and places on charge |  |  |  |
| **Documentation**Completes minimum documentation in clinical record (using institution’s template if available) | IndicationProcedureNumber of attemptsOutcomeComplications?Operator name, role (e.g. FACEM, trainee) |  |  |  |