Appendix 5

5.5. Assessment of Specialty Learning Outcome 6 - Procedural skills

5.5.1. Procedural skills in ACCS (ACCS Learning Outcome 5)

There are a number of procedural skills in which a trainee must become proficient to the level expected by the end of ACCS.

ACCS trainees must be able to outline the indications for these procedures and recognise the importance of valid consent, aseptic technique, safe use of analgesia and local anaesthetics, minimisation of patient discomfort, and requesting for help when appropriate. For all practical procedures, the trainee must be able to recognise complications and respond appropriately if they arise, including calling for help from colleagues in other specialties when necessary.

ACCS trainees should ideally receive training in procedural skills in a clinical skills lab before performing these procedures clinically, but this is not mandatory. Assessment of procedural skills will be made using the direct observation of procedural skills (DOPS) tool on simulated or actual patients.

The table below sets out the minimum competency level expected for each of the practical procedures at the end of ACCS.

When an ACCS trainee has been signed off as being able to perform a procedure independently, they are not required to have any further assessment (DOPS) of that procedure, unless they or their educational supervisor think that this is required (in line with standard professional conduct). This also applies to procedures that have been signed off during other training programmes. They would be expected to continue to record activity in their logbook.

Minimum standards for progression from ACCS training

Procedure	End of ACCS
Pleural aspiration of air *Entrustment requirement: 2b*	**Programme of learning** e-learning module Simulated practice or supervised practice on patient **Programme of assessment** DOPS assessment

Chest drain: Seldinger technique *Entrustment requirement: 2b*	**Programme of learning** e-learning module Simulated practice and/or supervised practice on patient **Programme of assessment** DOPS assessment
Chest drain: open technique *Entrustment requirement: 1*	**Programme of learning** e-learning module Simulated practice and/or supervised practice on patient National Safety Standards for Invasive Procedures (NatSSIPs) checklist ATLS or equivalent trauma course **Programme of assessment** DOPS assessment OR Supervised practice on patient with reflection recorded Simulated practice with reflection recorded OR ATLS certificate
Establish invasive monitoring (CVP and arterial line) *Entrustment requirement: 2b*	**Programme of learning** Simulated practice and/or supervised practice **Programme of assessment** DOPS assessment for CVP line AND DOPS assessment for arterial line
Vascular access in emergency (IO and femoral vein) *Entrustment requirement: 1*	**Programme of learning** Simulated practice and/or supervised practice ATLS or similar trauma course **Programme of assessment** DOPS assessment OR Supervised practice on patient with reflection recorded OR Simulated practice with reflection recorded
Fracture/dislocation manipulation *Entrustment requirement: 1*	**Programme of learning** Supervised practice on patient **Programme of assessment** DOPS assessment OR Supervised practice with reflection recorded

Procedure	End of ACCS
External pacing *Entrustment requirement: 2b*	**Programme of learning** e-learning module on bradyarrhythmias Simulated practice and/or supervised practice on patient ALS course **Programme of assessment** DOPS assessment OR Supervised practice on patient with reflection recorded OR Simulated practice with reflection recorded OR
DC cardioversion *Entrustment requirement: 2b*	**Programme of learning** e-learning module on broad and narrow complex tachycardias Simulated practice and/or supervised practice ALS course **Programme of assessment** DOPS assessment OR Supervised practice on patient with reflection recorded OR Simulated practice with reflection recorded OR
Point of care ultrasound-guided vascular access and fascia iliaca block *Entrustment requirement: 2b*	**Programme of learning** Simulated practice and/or supervised practice on patient Modular level 1 theory training **Programme of assessment** DOPS assessment for peripheral and central vascular access AND DOPS assessment for fascia iliaca block
Lumbar puncture *Entrustment requirement: 2b*	**Programme of learning** e-learning module Simulated practice and/or supervised practice on patient **Programme of assessment** DOPS assessment

Continued performance of ACCS procedural skills in intermediate and higher training will be recorded in the RCEM log book. This record includes any complications and the level of support received if relevant. Episodes where the trainee was supervising others in these skills will also be recorded.

5.5.2. Procedural Skills in Intermediate and Higher Training

During Intermediate and Higher training learners will be expected to become more expert in all the practical procedures previously undertaken. Continued performance of ACCS procedural skills in intermediate and higher training will be recorded in the RCEM log book. This record should include any complications and the level of support received if relevant. Episodes where the trainee was supervising others in these skills should also be recorded as learning events. The primary tool for the assessment of procedural skills is the direct observation of procedural skills (DOPS) tool which can be used on simulated or actual patients unless specified in the table below.

The purpose of this document is not to provide an exhaustive list of medical procedures which an Emergency Medicine Consultant may need or choose to perform over the course of their career and accordingly there are common medical procedures that are not included in the following list. It is intended to ensure that Emergency Medicine trainees are trained in emergency procedures typically required to preserve life, limb or treat painful emergency conditions in a timely and effective manner when there is no other more expert or appropriately trained practitioner immediately available.

It should be noted that there are a number of life-saving skills covered in this curriculum, such as resuscitative thoracotomy and resuscitative hysterotomy that are used rarely. These skills are included because it is conceivable that they may be required by a "day one" consultant in Emergency Medicine. Because these interventions are rare it is not expected that every trainee must have observed practice in these areas however it is required that higher trainees are able to outline the indications for these procedures, know where to request help and have had observed practice of the skill in a simulated environment, including decision making and human factors. Whilst it is not essential or mandatory it is recommended that this includes cadaveric experience, where appropriate, prior to completion of training.

We have indicated that by the end of intermediate training trainees should have progressed to the level 3 entrustment grade for all emergency procedures and level 4 but the end of higher training (see table 4 for the RCEM entrustment scale). This does not imply that the trainee would be entrusted to perform any or all procedures independently without assistance or supervision at the start of higher training. It is intended for this to be interpreted as that the trainee is entrusted to reliably recognise when a particularly procedure is indicated and begin **preparation** to proceed while waiting for appropriate assistance to attend in order for things to proceed safely. This is likely to include the Emergency Medicine consultant on duty and other members of the multidisciplinary team i.e. anaesthetist or relevant surgeon. After intermediate training the trainee would be expected to have reached a standard where they can play a valuable role in this team. This role would develop through higher training upon completion of which they would have reached a point where they could be entrusted to lead this multidisciplinary team or perform any role in it.

Minimum standards for progression from intermediate and higher training

Procedure	End of intermediate training	End of higher training
Paediatric sedation	**Programme of learning** Completion of RCEM e-learning module on paediatric sedation Attendance at paediatric sedation simulation session Performance of observed procedural sedation patients under the direct supervision of an ED Consultant **Programme of assessment** Certificate of completion of RCEM e- learning module Certificate of attendance at paediatric sedation simulation day DOPS assessment for paediatric sedation	**Programme of learning** Performance of observed procedural sedation patients under the direct supervision of an ED Consultant **Programme of assessment** Logbook record DOPS assessment of observed practice on patient if intermediate DOPS was a simulation
Advanced airway management	RSI Emergency surgical airway **Programme of learning** IAC training during ACCS Ongoing observed or simulated practice Simulated skills practice including surgical airway training ATLS or similar trauma course **Programme of assessment** IAC certificate DOPS assessment Log book record	RSI Emergency surgical airway **Programme of learning** Ongoing observed actual or simulated practice which may include RSI activity in ED/ theatres (including as part of a multi-disciplinary team) Simulated skills practice including surgical airway training **Programme of assessment** Logbook record

Non-invasive ventilation	**Programme of learning** e-learning module on NIV Observed or simulated practice of NIV initiation **Programme of assessment** Certificate of completion of e-learning module DOPS assessment	Log book record of skill maintenance
Open Chest drain	**Programme of learning** Understanding of National Safety Standards for Invasive Procedures (NatSSIPs) checklist Observed or simulated practice **Programme of assessment** DOPS assessment Log book record	**Programme of learning** Observed practice Observed instruction of technique **Programme of assessment** DOPS assessment of observed practice on patient if intermediate DOPS was a simulation Logbook record of skill maintenance
Resuscitative thoracotomy	**Programme of learning** e-learning module Simulated practice **Programme of assessment** Certificate of completion of e-learning module	**Programme of learning** Simulated practice **Programme of assessment** DOPS assessment
Lateral Canthotomy	**Programme of learning** e-learning module Simulated practice **Programme of assessment** Certificate of completion of e-learning module	**Programme of learning** Simulated practice **Programme of assessment** DOPS assessment

DC cardioversion	**Programme of learning** e-learning module on broad and narrow complex tachycardias OR ALS course Observed or simulated practice **Programme of assessment** DOPS assessment Logbook record	**Programme of learning** Maintenance of skills throughout HST Observed instruction of management of tachydysrythmias **Programme of assessment** Logbook record
External pacing	**Programme of learning** e-learning module on bradyarrhythmias OR ALS course Observed or simulated practice **Programme of assessment** Certificate of completion of eLearning module OR ALS certificate DOPS assessment Logbook record	**Programme of learning** Maintenance of skills throughout HST Observed instruction of management of bradydysrythmias **Programme of assessment** Logbook record
Pericardiocentesis	**Programme of learning** e-learning module Simulated practice **Programme of assessment** Certificate of completion of e-learning module	**Programme of learning** Simulated practice **Programme of assessment** DOPS assessment

ED management of life-threatening haemorrhage	**Programme of learning** e-learning modules ATLS or similar trauma course Observed or simulated practice of direct and indirect haemorrhage control techniques including but not exclusive to; • Wound management • Bleeding varicose veins • Nasal packing • Splints (e.g. pelvic sling, traction splint) • Tourniquet • Use of haemostatic agents **Programme of assessment** Certificates of completion of e-learning modules DOPS assessments of relevant techniques Log book record	**Programme of learning** Observed practice Observed instruction of technique **Programme of assessment** DOPs assessments for observed practice on patients of relevant techniques and teaching Logbook record of skill maintenance
Emergency delivery	**Programme of learning** e-learning module Simulated practice **Programme of assessment** DOPS assessment Logbook record	**Programme of learning** Observed or simulated practice **Programme of assessment** DOPS assessment Logbook record
Resuscitative hysterotomy	**Programme of learning** e-learning module Simulated practice **Programme of assessment** Certificate of completion of e-learning module	**Programme of learning** Simulated practice **Programme of assessment** DOPS assessment

Fracture / Dislocation manipulation	**Programme of learning** Supervised practice of fracture and dislocation manipulation and splinting techniques including but not exclusive to; • Shoulder • Elbow • Wrist • Finger • Hip • Femur • Lower leg • Ankle • Toes • Mandible **Programme of assessment** DOPS assessments for various fracture reduction and joint manipulation techniques Logbook record	**Programme of learning** Observed practice Observed instruction of technique **Programme of assessment** DOPS assessments for relevant observed practice of various techniques and teaching Logbook record of skill development and maintenance
Large joint aspiration	**Programme of learning** e-learning module Observed or simulated practice **Programme of assessment** DOPS assessment Logbook record	**Programme of learning** Maintenance of skills throughout HST **Programme of assessment** Logbook record

		Programme of Learning	Programme of Learning
Point of care Ultrasound (Diagnostic)		**Programme of Learning** e-learning USS resources on data interpretation Ongoing observed and simulated practice of ACCS skills Observed and simulated practice of; • Echo in Life Support (ELS) Is the heart contracting? Is there pericardial effusion causing cardiac tamponade? Is there evidence of right ventricular strain? • AAA • eFAST / Focussed Assessment for Free Fluid (FAFF) **Programme of assessment** Log Book record DOPS assessments Educational supervisor review of logbook regarding progress towards sign off when competent	**Programme of Learning** e-learning USS resources on data interpretation Ongoing observed and simulated practice of ACCS and intermediate skills Observed and simulated practice of; • Shock assessment - including IVC measurement, global contractility and assessment of fluid status (including overload and hypovolaemia). **Programme of assessment** Log Book record DOPS assessments Educational supervisor review of logbook and sign off by the end of HST for; • ELS • Shock assessment • AAA • eFAST/ FAFF Entrustment based- for guidance approximate number of scans expected: ELS 10; AAA 25; Shock Assessment 25; eFAST/FAFF 25. Scans recorded in the log book throughout training. Maintain log book for each modality when scanning independently

1	Direct supervisor observation/involvement, able to provide immediate direction/ assistance
2a	Supervisor on the 'shop-floor' (e.g. ED, theatres, AMU, ICU), monitoring at regular intervals
2b	Supervisor within hospital for queries, able to provide prompt direction or assistance and trainee knows reliably when to ask for help
3	Supervisor 'on call' from home for queries, able to provide directions via phone and able to attend the bedside if required to provide direct supervision
4	Would be able to manage with no supervisor involvement (all trainees practice with a consultant taking overall clinical responsibility)