Overview of changes to the new Vascular Surgery Curriculum

Phases of training: The Intermediate and Final stages of training described in the previous curriculum have been replaced by two phases of training, phase 2 and phase 3. Phase 1 of surgical training is covered by the core surgery syllabus. The pathway for training has been defined more clearly.

The CiPs: *Manages an operating list* (CiP 4) and *Manages multi-disciplinary working* (CiP 5) progress from supervision level II at the end of phase 2 to supervision level IV at completion. The view of the SAC, supported by the trainee organisation (Rouleaux Club) was that this best represented the level of technical skill acquisition necessary within phase 3, this being the skill level to be able to achieve the ability to manage a full caseload of elective and emergency vascular surgery and undertake appropriate multi-disciplinary working. It also represents the level of trainer interaction anticipated and required to achieve the supervision level IV. For managing an operating list, a vascular-specific aspect highlights that the list may be in variable locations (operating theatre / hybrid theatre and or endovascular suite).

Syllabus: Within the syllabus topics, the skill levels for the domains of *knowledge*, *clinical skills* and *technical skills* been removed and re-written as high-level outcome *objectives* for each topic.

Each objective is to be assessed as part of the MCR appropriate to that phase. The objectives at the end of phase 2 equates to previous levels at ST6.

In updating the syllabus we have made changes to give vascular training a more defined focus such as within the vascular imaging with the interpretation of the imaging being just related to the vascular pathology and management planning.

Within the abdominal and general surgery topics we have reduced the technical objectives to allow the single year of general surgery to be focussed on the management of the acute surgical patient and the skills related to the abdominal surgery that will be advanced and utilised through the curriculum for open vascular surgery, such as the stipulation of bowel mobilisation as an objective to allow vascular exposure.

Index procedures / technical skills training: The development of combined open and endovascular operating is recognised by the addition of the index procedure of Combined Open With Endovascular Revascularisation (COWER). There is also the recognition within the objectives for the utilisation of intra-operative diagnostic angiography within the hybrid theatre. This recognises the increased provision of endovascular procedures by vascular surgeons and the increased role of training for these by vascular surgeons. The list of index procedures is shown in appendix 4

Multi-disciplinary working with Interventional Radiology: The curriculum has full agreement from Interventional Radiology to provide educational input to the vascular trainees with respect endovascular training. Where there is an increased provision of endovascular intervention by vascular surgeons, and hence the ability to utilise a proportion of these cases for training, this relates to local care delivery requirements to optimise patient outcome. This development is already highlighted with logbook reviews of the present vascular trainee cohort and is supported with the *Provision of Vascular Services* document of 2018 that supports the requirement for hybrid Vascular Surgery theatres with Interventional Radiology capacity at the vascular Hub sites.

The multi-disciplinary working with Interventional Radiology is recognised within the *manages multi-disciplinary working* CiP and in the presence of collaborative objectives / index cases. These were agreed through a collaborative process and the interdependence with other specialties highlights the size and importance of our collaboration with Interventional Radiology. We have highlighted the collaborative working as an indication of common ground of training and also the optimisation of patient outcomes.

Critical Conditions: The list of acute critical conditions (appendix 3) is highlighted within the curriculum and all trainees will be expected to be competent in managing these conditions, along with possessing the knowledge of a list of key topics. They are to be assessed using the CBD or CEX over the six years of training and used to show, by certification, the development through to the attainment of competence, with these assessments (at level 4: *Appropriate for certification*). There is no requirement for a certain number of CBDs and CEXs, however.

We have added Fulminant Diabetic Foot Sepsis as a Critical Condition.

Outcomes: Five high-level outcomes; Capabilities in Practice (CiPs) have been introduced alongside the Generic Professional Capabilities (GPCs) framework. These are given equal weight in assessing trainees (see below).

Assessments: A new assessment tool; the Multiple Consultant Report (MCR) has been introduced incorporating the CiPs and GPCs.

Reduced reliance on required numbers of other workplace-based assessment (WBA): Vascular Surgery has retained the PBA for the specific index procedures and the use of the other WBAs as a focused outcome or target from the MCR report. The PBA numbers required for the index cases are to be achieved over the six years of training and used to show, by certification, the development through to the attainment of competence, with these assessments (at level 4a/b as shown on the PBA form) being undertaken by more than one trainer.

The requirement for a minimum number of cases has been removed. The index case load is indicative.

Courses: ATLS may be one of several options to provide competence in the management of vascular trauma. The ATLS certification achieved for entry at ST3 would remain valid during the training years with involvement of the general surgery take and hence the trauma team.