Curriculum Mapping Document
Congenital Cardiac Surgery

Generic changes (common to all surgical curricula):

Training will become outcomes based:
Trainees will finish training when they have reached the level expected of a day 1 consultant in that specialty[1]. Training will now be truly capability based, although there will be indicative times for the length of training in which the great majority of trainees will be expected to complete training. Trainees will be able to progress faster through training if they demonstrate the necessary capability.

Generic Professional Capabilities[2] will have equal importance to knowledge, clinical and technical skills:
The Generic Professional Capability Framework describes the knowledge and skills that *all* doctors need to acquire to be a doctor of any kind, whatever specialty. Inclusion of GPCs in curricula will ensure professional development is proceeding at an appropriate pace alongside development of clinical skills.

Training will be arranged in phases:
Surgical training will be arranged into 3 phases, each phase having a critical progression point at its end, where evidence of acquisition of capability to a level described in the curriculum is necessary for progression to the next phase or for certification. Details differ slightly between specialties and the specialty curricula should be consulted for specific details.

Phase 3: Congenital Cardiac Surgery relates to phase 3 of the parent curriculum of Cardiothoracic Surgery. The outcome is to have gained all the capabilities necessary for safe practice as a day 1 consultant in the specialty and sub-specialty. By the end of phase 3 the knowledge, clinical and professional skills as well as the technical skills to the level of a day 1 consultant will have been developed in the generality of the specialty, emergency care and in the sub-specialty described by the specialty curriculum. Once these capabilities have been achieved an ARCP 6 may be awarded and trainees can apply for certification.

[1] Within the arrangements laid out in the Gold Guide and European Law

[2] Generic Professional Capabilities Framework Document GMC 2017 https://bit.ly/2SxgH7b

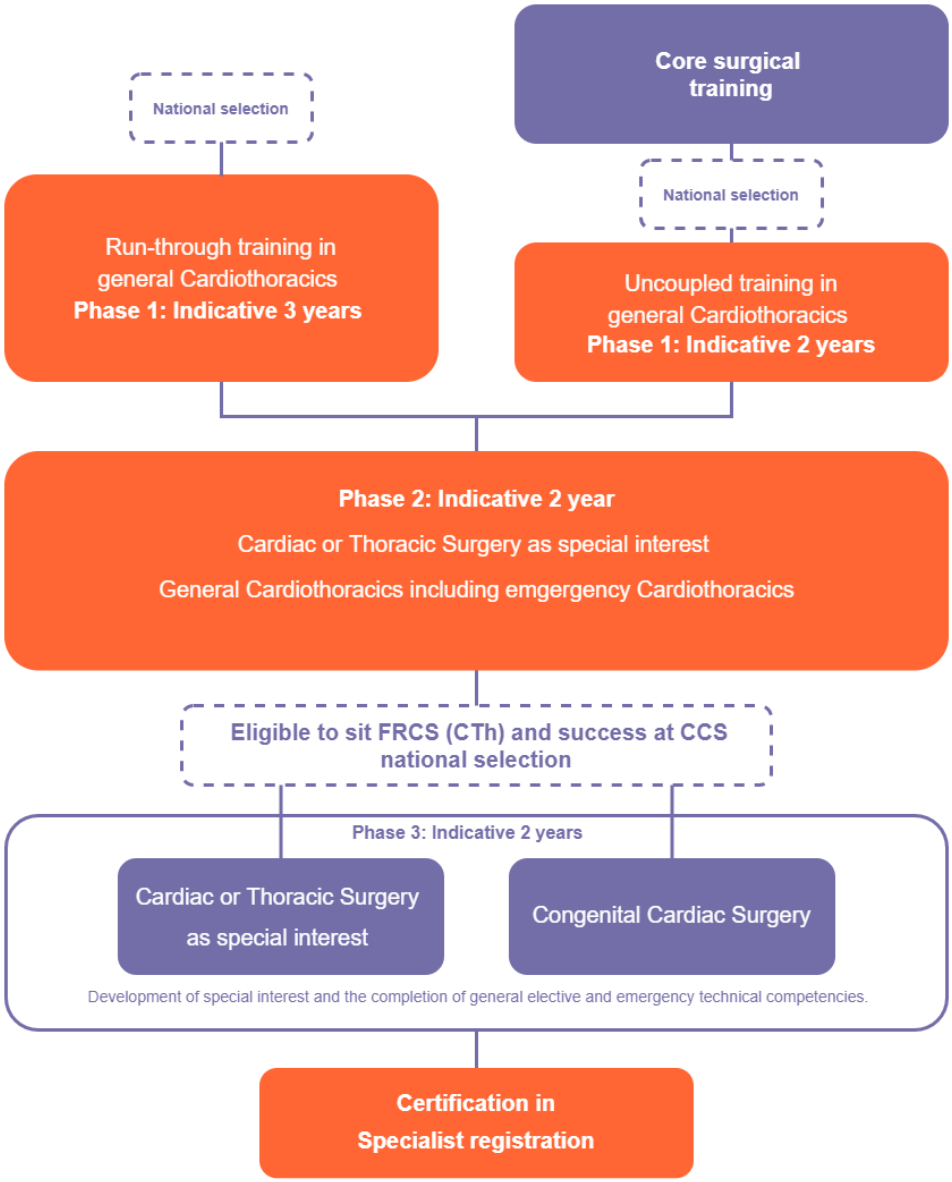

Figure 1: Phases of a surgical training pathway.

Capability at the level of a day 1 consultant will have to be reached in all areas of the job to finish training:
Through the week a surgeon will work in a number of different areas and a trainee will need demonstrate capability at or above the level of a day 1 consultant in each of these areas. These 'Capability in Practice' (CiP) areas common to all surgical specialties are:

- Managing an out patient clinic
- Managing in-patients and ward rounds
- Emergency care
- Managing an operating List
- Multi-Disciplinary Team working

A Capability in Practice covers everything a day 1 consultant needs to perform that part of the job and integrates knowledge, clinical, professional and technical skills into a functioning whole.

Cardiothoracic Surgery has some additional CiPs that other specialties do not need to develop because of the different scope of work. These are:

Cardiothoracic Surgery

- Manage patients within the critical care area
- Assess surgical outcomes both at a personal and unit level

When someone is at the start of training they will need to be supervised more than someone near the end of training in each of the CiPs, until no supervision is needed when the level of a day 1 consultant has been reached and training can end. To classify how much supervision is required in each CiP at a particular time, Supervision Levels will be introduced. To allocate a supervision level ask 'how much supervision is needed in this area of work?" Supervision level I describes someone who can only observe the task and supervision level IV indicates that someone is displaying competencies at the level of a day 1 consultant (table 1).

Supervision Level I:	Able to observe only: no execution
Supervision Level IIa:	Able and trusted to act with direct supervision: The supervisor needs to be physically present throughout the activity to provide direct supervision
Supervision Level IIb:	Able and trusted to act with direct supervision: The supervisor needs to guide all aspects of the activity. This guidance may partly be given from another setting but the supervisor will need to be physically present for part of the activity
Supervision Level III:	Able and trusted to act with indirect supervision: The supervisor does not need to guide all aspects of the activity. For those aspects which do need guidance, this may be given from another setting. The supervisor may be required to be physically present on occasions.
Supervision Level IV:	Perform at the level of a day 1 consultant
Supervision Level V:	Performs beyond the level expected of a day one consultant

Table 1: Supervision levels describing the level of capability in practice.

Supervision levels will be recommended by clinical supervisors who work with the trainee in each of the CiP areas on a day to day basis via an assessment called the Multiple Consultant Report (MCR).

The main workplace based assessment in the new outcomes based curriculum will be the Multiple Consultant Report (MCR):

Clinical supervisors will meet at the midpoint and just before the end of a placement to discuss the supervision level reached by a trainee in each of the CiPs and also whether they are developing GPCs to an appropriate level for the phase of training. If a trainee has not reached supervision level IV or V in a CiP then the MCR will require trainers to identify areas most in need of development in the next 3 to 6 months of training in order to develop towards a day 1 consultant. Trainees will complete the same form as a self-assessment and identify their own supervision level and areas for development. If performance is beyond that expected then this can be captured too.

A trainer will meet with the trainee to discuss the MCR alongside the self-assessment and agree how best to develop in the areas identified. This may involve changing the emphasis of the placement slightly if one CiP seems to be falling behind the rate of development in others. The midpoint MCR will provide formative feedback and the end of placement MCR will also provide formative feedback, but will in addition, provide a summative assessment for consideration by the ARCP panel.

The MCR will also be integrated into the Learning Agreement. The MCR from the previous placement and its recommendations of areas for development will be available, as well as the self-assessment to facilitate the setting of goals for the new placement. In this way it will be easier to 'hit the ground running' in a new placement. Progress towards the objectives set will be reviewed at the midpoint learning agreement meeting along with the formative midpoint MCR and modifications made accordingly. The final meeting of the learning agreement will consider the end of placement MCR. The AES report will take into consideration progress against objectives as well as the MCR and other portfolio evidence for consideration by the ARCP panel at the end of the training year.

The role of WBAs will be less in the new curriculum:

In an outcomes-based curriculum which develops integrated capability in the daily tasks of the job of a consultant surgeon, the current suite of WBAs are less suited to summative assessment because they are too granular in their scope. Because of this, and also so as not to add another layer of assessment to training, there will be no requirement to complete a certain number of WBAs per training year. WBAs will remain to provide additional evidence of competence by the completion of training in key areas of the syllabus; the critical conditions and index procedures. They can also be used by trainees to formalise and structure feedback on particular clinical interactions or procedures if they wish. In addition, they can be used to assess progress towards achievement of targeted training.

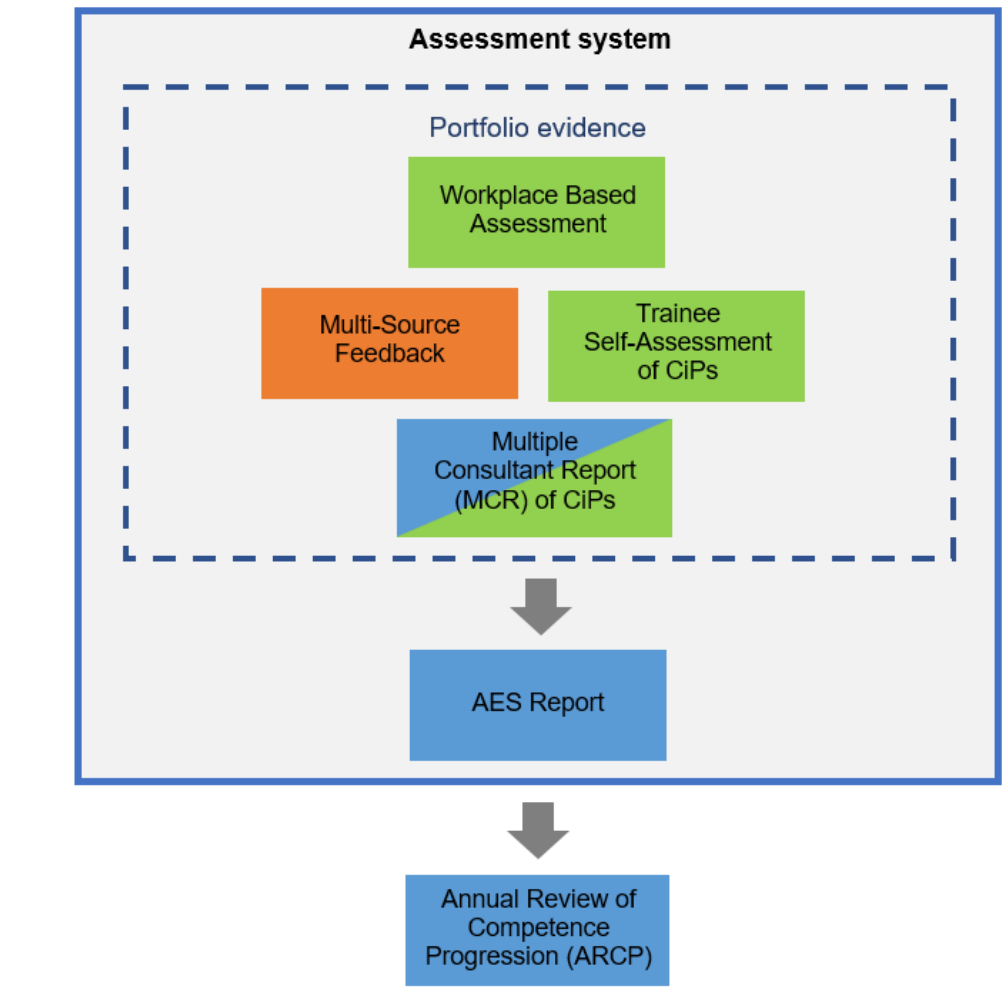

Figure 2: The assessment suite in surgical training. There will be no target number of WBAs in a training year. WBAs will be used to assess index procedures and critical conditions: by the end of training, a trainee will have to demonstrate 3 appropriate WBAs at the level described for certification by the specialty syllabus (usually level 4) in each of the index procedures and critical conditions. WBAs may also be used to provide granular assessment in areas of concern (e.g. to assess that the targets of ARCP outcome 2 or 3 have been achieved).

Mapping WBAs to the curriculum

The linking of WBAs to syllabus topics will no longer be relevant in an outcomes-based curriculum, this will be removed. The new curriculum will allow WBAs to be mapped to critical conditions (CEX and CBD) and index procedures (DOPS and PBA) to aid the recording of breadth and depth of learning.

Summary of Generic Changes

All medical curricula, including those for surgical specialties, are changing to become outcomes based: a trainee finishes training when they are ready to be a day 1 consultant. Trainers decide when a trainee has displayed the competence required for day 1 consultant practice in each area of the working week (CIPs) and when this level has been reached, as well as completion of other certification requirements, ARCP 6 can be awarded and the trainee can apply to be on the Specialist Register.

Formative feedback will improve through the multiple consultant report and trainees will be more easily able to gain insight into their own performance and training requirements through self-assessment. The MCR can be previewed by logging into ISCP and following the links or paste www.iscp.ac.uk/mcr into the address bar after logging in. More information is available on ISCP or on our ISCP/JCST YouTube site https://www.youtube.com/channel/UCNFco9XJHPYs-ucDWcr5FkA

Transition to the new curricula

It is anticipated that the new curricula will be followed from August 2020. Table 2 describes details for transition, but in summary:

Transition arrangements				
Stage of training to be entered on or after 5 August 2020	**Required to transfer (Y/N)** See note (4)	**Deadline for transfer**	**Impact of transfer (e.g. will trainees need to take new assessment or learn new procedure?)**	**Support available for trainees and trainers**
ST6	Yes	3 August 2022	Trainees will need to learn and demonstrate the Capabilities in Practice (CiPs) and Generic Professional Capabilities (GPCs) through the Multiple Consultant Report (MCR). There will be no requirements to complete a certain number of Workplace Based Assessments (WBAs) per year. WBAs to be used to assess critical conditions and index procedures as described in the curriculum, or to assess areas of concern. Trainees will need to be familiar with and follow phased training pathway	Mapping document and help pages on ISCP
ST7	No	3 August 2022 (if still in training)		
Less than full time	Yes	Trainees who are less than full time training may remain on the previous curriculum until they transition to the next training level. For example, 50% LTFT trainee has undertaken 1 year at ST6 (6 months equivalent) at the August 2020 rotation date may remain on the previous curriculum until August 2021 (12 months equivalent) until they enter ST7. All trainees must transfer by 3 August 2022		
Out of training	Yes	Trainees who take time out of Out of Programme may remain on the previous curriculum while on their current training level. For example, a trainee returning from OOP at ST6 in August 2020 may remain on the previous curriculum until they move to ST7. All trainees must transfer by 3 August 2022		

			as described in the new curriculum.	

Table 2: Detailed transition arrangements and impact of transfer on a trainee

Training pathways

Updated surgical specialty curricula have few implications for employers. The specialty pathway has been approved by the Curriculum Oversight Group (COG) which ensures, in approval, that the curricula meet the requirements of the Shape of Training Steering Group report[3] including its first requirement of new curricula that they: "Take account of and describe how the proposal will better support the needs of patients and service providers." Special interest development within training has been agreed by the COG to align with the needs of the service and will be deliverable without significant change in current training arrangements and placements. Training in any of the phases of training can be delivered without changing the format of existing placements and without reconfiguration of placements between providers.

The overall knowledge, clinical, professional and technical skills required of a day 1 consultant in surgery are not altered (although their presentation within the curriculum has been rationalised). In Cardiothoracic Surgery, at the request of the COG, trainees will follow either a cardiac or thoracic special interest.

Assessment

The move to an outcomes-based curriculum is a GMC requirement and the requirement for a Multiple Consultant Report (MCR) is laid out in Generic Professional Capabilities: guidance on implementation for colleges and faculties[4]. Introduction of the MCR means that trainers will have to meet in person, or virtually through the Intercollegiate Surgical Curriculum Programme (ISCP) training management system at the middle and near the end of a placement. To offset time for this assessment there will no longer be a required number of WBAs (40-80 depending on region) to be completed per year. The MCR will also replace the current clinical supervisor report and so, with the reduced emphasis on WBA, no overall extra time for assessment is anticipated.

The MCR will improve feedback and will allow safe acceleration of training within the new phased training pathway for those who acquire capability more quickly than the indicative time allowed. The MCR has been widely discussed, including at curriculum development days attended by employers representatives, and has strong support. Piloting and the online demonstration version of the MCR have also received very positive feedback. The suggested optimal environment for MCR is in face to face group discussion which can occur in dedicated time, or before or after consultant meetings for other reasons (MDT, audit, M+M, business meeting etc). If one or more trainer cannot be present then online options will be available.

[3] Report from the UK Shape of Training Steering Group https://bit.ly/2wcE4LV

[4] Generic Professional Capabilities: guidance on implementation for colleges and faculties Cchttps://bit.ly/3bGLabU

Changes specific to the parent specialty and sub-specialty curricula

In Cardiothoracic Surgery the indicative length of training has decreased at the request of the COG from indicative 8 years (core/run through + specialty training) to indicative 7 years by decreasing the time in early years of training before trainees are required to follow either a cardiac or thoracic special interest. All trainees are required to be able to manage cardiac and thoracic emergencies (including post operative emergencies) to the point of operation throughout training, and no significant impact on rotas or the provision of service is expected. Minor updates to knowledge learning objectives have been made to keep the syllabus in line with modern practice and minor clinical skill items have been updated for the same reason. There will be no impact or added requirements for employers in delivering these updates, which can be incorporated into existing training teaching programmes and in work-based training in theatre.

There are no specialty-specific changes to the sub-specialty, including the syllabus topics content and skill levels.