Marklýsing kjarnanáms í skurðlækningum

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The Intercollegiate Surgical Curriculum

Educating the surgeons of the future

Core Surgery

2017

ISCP INTERCOLLEGIATE SURGICAL CURRICULUM PROGRAMME

Approved 26 May 2017, for implementation August 2017

Core Surgical Training

CONTENTS

This curriculum describes Core Surgical Training in the UK. Arrangements in the Republic of Ireland differ, although some aspects are the same (eg the syllabus content for the MRCS examination). The overarching content of the Intercollegiate Surgical Curriculum Programme (ISCP) forms the basis for this curriculum but it has been updated and modified in parts to reflect aspects specific to Core Surgical Training.

The syllabus element of this curriculum, together with a brief explanation of its modular nature, has been inserted into each specialty curriculum

BACKGROUND and RATIONALE

Core surgical training is diverse. Uncoupled from specialty training for the majority of trainees, the neurosurgical curriculum describes a run-through programme for all ST1 entrants and Cardiothoracic Surgery, Trauma and Orthopaedic Surgery (T&O) and Oral & Maxillo-Facial Surgery (OMFS) curricula are divided with both run-through and uncoupled programmes currently in operation. In addition, Academic Clinical Fellowships grant run-through status to successful applicants. While some Core Surgical Training programmes provide pre-agreed 2 year rotations themed to one of 10 specialties others are generic. In recognition of the time spent in dental surgery by its trainees, OMFS training omits the CT2 year. The required final competencies of successful trainees are also diverse with each specialty having its own expectation of a new ST3 trainee represented in distinct recruitment person specifications. Despite this diversity, there remains a commitment to retain within core surgical training a generic training in that which is common to all surgical practice.

This 2017 update to the curriculum for core surgical training aims to serve multiple diverse training needs and satisfy multiple distinct stakeholders in a single document. Contributing to its content and design has been the uncoupling of core surgical training from specialty training for all the surgical specialties bar neurosurgery, crystallisation of single centre national recruitment, the introduction of the specialty of vascular surgery, three minor syllabus revisions in 2010, 2013 & 2015, continued national devolution and for England, the creation of Health Education England and its Local Education and Training Boards and geographies.

Both active trainers and current trainees have been involved in the preparation of this curriculum, through their representatives at the Core Surgical Training Committee and all ten Specialty Advisory Committees of the Joint Committee on Surgical Training (JCST). The patient voice has been sought through the lay members of JCST. The Intercollegiate Committee for Basic Surgical Examinations is responsible for delivery of the MRCS exam, a mandatory component of the scheme for assessment of this curriculum, which will need to blueprint against it. Each SAC has produced a set of quality indicators for core training posts in their specialty. Each national specialty recruitment team, within which the SACs are heavily represented, have their own ST3 person specifications; these documents and this curriculum align with each other. Each specialty curriculum currently includes a specification for early years training and it is intended that this 2017 revision of the Core Surgical Training (CST) curriculum will unify these surgical curricula elements.

Curriculum structure

In order to satisfy the many diverse requirements and stakeholders laid out above in a single document, this curriculum has adopted the flexibility of a truly modular structure. At its heart are the

educational principles, assessment tools and supervisory framework of the current intercollegiate surgical curriculum[1] which are here applied to the specific requirements of core surgical training. In addition to the professional behaviour and leadership skills module common to all ISCP curricula, there are three types of module:

Common content

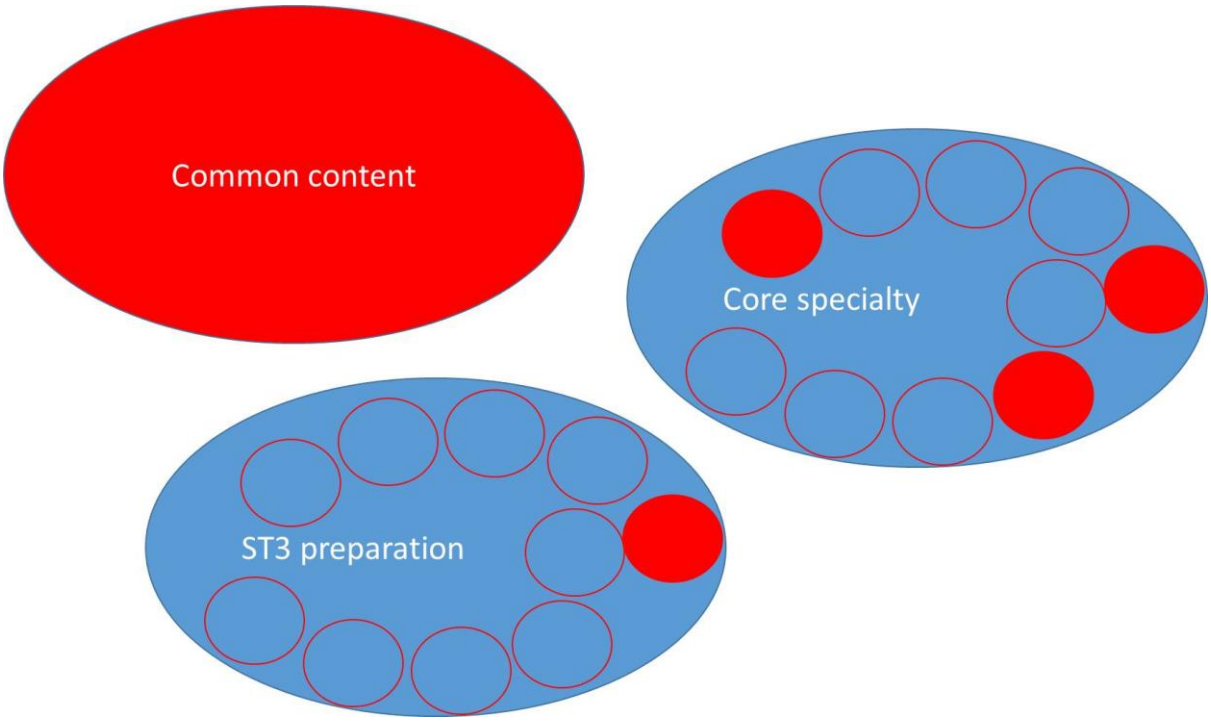
Those items of knowledge and clinical and technical skills which represent the generic competence required of all future surgeons are represented in a module to be undertaken by all CT1 & ST1 surgical trainees. The MRCS examination aligns to this module which serves to define the "CT1 competencies" required by the OMFS ST3 person specification. It is here that those competencies transferable to other training programmes are to be found.

Core specialty

As they rotate from specialty to specialty in years 1 & 2, trainees will take on the relevant core specialty modules, which will specify the knowledge and skills that all surgical trainees in such a placement should acquire, regardless of their surgical specialty of choice. These modules align with the quality indicators suggested by the SACs for core training posts in their specialties. Most trainees will wish to complete at least three of these modules, one of which will be in the same specialty as their ST3 preparation module.

ST3 preparation

By the start of their CT2 year, trainees in uncoupled programmes should have made a choice regarding the specialty in which they wish the rest of their career to develop. Run-through trainees will already be bound to a specialty. Starting in their second year, trainees will work towards completion of the ST3 preparation module in their chosen specialty. These modules



[1]https://www.iscp.ac.uk/documents/Curriculum%20Overview%20(Generic%20text)%20Oct%202014%20-%20AUC.pdf

align with the entry expectations of the higher surgical training programmes and with the essential criteria of the person specifications of the ST3 national recruitment panels.

The minimum requirements for this curriculum are completion of the common content module, the core specialty module for each specialty through which the trainees rotate (which may be as few as one) and one ST3 preparation module (which may be in any specialty of the trainee's choice).

THE INTERCOLLEGIATE SURGICAL CURRICULUM

The Intercollegiate Surgical Curriculum provides the approved UK framework for surgical training from completion of the foundation years through to consultant level. It achieves this through a syllabus that lays down the standards of specialty-based knowledge, clinical judgement, technical and operative skills and professional skills and behaviour, which must be acquired at each stage in order to progress. The curriculum is web based and is accessed through www.iscp.ac.uk.

The website contains the most up to date version of the curriculum for each of the ten surgical specialties, namely: Cardiothoracic Surgery; General Surgery; Neurosurgery; Oral and Maxillo-Facial Surgery (OMFS); Otolaryngology (ENT); Paediatric Surgery; Plastic Surgery; Trauma and Orthopaedic Surgery (T&O); Urology; Vascular Surgery. They all share many aspects of the early years of surgical training, but naturally diverge further as training in each discipline becomes more advanced. Each syllabus will emphasise the commonalities and elucidate in detail the discrete requirements for training in the different specialties.

The responsibility for setting the curriculum content for surgery rests with the four Royal Surgical Colleges which operate through the Joint Committee on Surgical Training (JCST) and its ten Specialty Advisory Committees (SACs) and Core Surgical Training Committee (CSTC). The curriculum requires approval by the GMC. Local Education and Training Boards and their Schools of Surgery are responsible for running GMC approved training programmes and for aiding the SACs in recruitment and selection at all levels of pre-CCT training.

Aims and principles of the curriculum

The provision of excellent care for the surgical patient, delivered safely, is at the heart of the curriculum. The aims of the Intercollegiate Surgical Curriculum Programme (ISCP) are to ensure the highest standards of surgical practice in the UK by delivering high quality surgical training and to provide a programme of training from the completion of the foundation years through to the completion of specialty surgical training, culminating in the award of a CCT/CESR CP[2]. The curriculum was founded on the following key principles which support the achievement of these aims:

- A common format and similar framework across all the specialties within surgery
- Systematic progression from the end of the foundation years through to completion of surgical specialty training

[2] CESR CP – for trainees who are appointed at ST2 or above who have non-approved training counted towards their appointment and who complete the remainder of an approved training programme, and pass all the relevant assessments. Please see GMC website for further details http://www.gmc-uk.org/doctors/combinedprogramme_page_1.asp

- Curriculum standards that are underpinned by robust assessment processes, both of which conform to the standards specified by the GMC
- Regulation of progression through training by the achievement of outcomes that are specified within the specialty curricula. These outcomes are competence-based
- Delivery of the curriculum by surgeons who are appropriately qualified to deliver surgical training
- Formulation and delivery of surgical care by surgeons working in a multidisciplinary environment
- Collaboration with those charged with delivering health services and training at all levels

The curriculum is broad based and blueprinted to the Good Medical Practice and Good Surgical Practice frameworks to ensure that surgeons completing the training programme are more than just technical experts. Equality and diversity are integral to the rationale of the curriculum and underpin the professional behaviour and leadership skills syllabus. The ISCP encourages a diverse surgical workforce and therefore encourages policies and practices that:

- Ensure every individual is treated with dignity and respect irrespective of their age, disability, gender, religion, sex, sexual orientation and ethnic, national or racial origins
- Promote equal opportunities and diversity in training and the development of a workplace environment in which colleagues, patients and their carers are treated fairly and are free from harassment and discrimination

It is expected that these values will be realised through each individual hospital trust's equality and diversity management policies and procedures.

Core surgical training curriculum

The major aim of the 2017 CST curriculum is, in line with the principles of the ISCP detailed above, to act as a unifying document to govern the first two years of all UK surgical training, with the exception of neurosurgical training (although this specialty, in common with all others, requires trainees to achieve the MRCS, the syllabus for which is reflected within the Common Content Module of this curriculum, in order to progress to ST3 level). Those who successfully complete this curriculum will be well placed to enter higher surgical training. It is recognised however that many trainees who make satisfactory progress in core surgical training will elect to pursue valuable careers in other branches of medical practice. The JCST is committed to working through the Academy of Medical Royal Colleges to identify competencies within this curriculum which are transferable to other post graduate medical training curricula.

ENTRY, TRAINING PATH and COMPLETION

Recruitment

After graduating from medical school doctors immediately move onto a mandatory two-year foundation programme in clinical practice. During their final year of medical school students are encouraged to identify the area of medicine they wish to pursue into specialty training. During the Foundation programme, recently qualified doctors are under close supervision whilst gaining a wide range of clinical experience and attaining a range of defined competences. Entry into surgery is by open competition and requires applicants to understand, and provide evidence for their suitability to become members of the surgical profession. Applicants whose early medical experience has been

obtained overseas will be expected to provide evidence of Foundation competence equivalency, currently in the form of a completed Alternative Certificate of Foundation Competences[3]. Because of this universal minimum starting point for competence amongst core surgical trainees, those competencies required of Foundation doctors are not duplicated in this curriculum, except where they are of particular importance to surgical training.

The critical selection points for surgical training are at initial entry either directly into specialty training in their chosen discipline (ST1, currently available for neurosurgery, Cardiothoracic Surgery, Trauma and Orthopaedic Surgery and Oral and Maxillo-Facial Surgery and for academic clinical fellows) or into a generic training period referred to as core training (CT1). Those who enter core training will then have to achieve agreed milestones including passing College examinations and gaining satisfactory outcomes in Annual Reviews of Competence Progression (ARCP) and if successful compete again for selection into the discipline of their choice after two core years and join the specialty programme at a key competency point (ST3) after which transfer from one discipline to another would be relatively unusual. Selection at both core and higher surgical training takes place via a national selection process overseen by the LETBs and JCST. Recruitment to CT1 is run by the Core Surgery National Recruitment Office (CSNRO), hosted by Health Education Kent Surrey & Sussex (HEKSS)[4]. Additional guidance about the recruitment process, application dates and deadlines and links to national person specifications by specialty are available from the NHS specialty recruitment[5] website.

Trainees may be appointed to generic or themed training rotations and have the opportunity to rank their preferences during the selection process. Generic programmes provide the opportunity to complete the core curriculum in a rotation through a wide variety of surgical specialties and may be ideal for a trainee who, although committed to surgery has yet to decide in which of the 10 specialties he/she wishes to undertake higher surgical training. Some of these programmes specify posts for just the first year and allow competition for specialty specific posts in the interface between the first and second year of the programme. Themed programmes provide a rotation through posts specifically chosen to suit the development of an individual who already knows in which surgical specialty they wish to train.

Moving from one surgical specialty to another

In the early years of surgical training it is possible that a trainee who has started to develop a portfolio consistent with a particular surgical specialty might wish to move to another. One of the strengths of this flexible, modular curriculum is that it should be possible until well into the CT2 year, for a trainee to change their career intention and adopt a different ST3 preparation module from that of their original intent. Clearly this would be contingent on local post availability and notice periods in discussion with the School of Surgery. This sort of move would be strictly conditional on a trainee achieving the educational milestones so far agreed for them. Moving from one intended specialty to another because of the need to remediate would not normally be permitted. It is unlikely that a change in career intention alone would be a valid reason for an extension of core training beyond two years.

[3] http://specialtytraining.hee.nhs.uk/alternative-certificate-for-foundation-competencies/
[4] http://www.surgeryrecruitment.nhs.uk/
[5] http://specialtytraining.hee.nhs.uk/

Those wishing to enter Neurosurgery from core surgical training would have to return to ST1 in Neurosurgery to gain competences in Neurology and Neuro-intensive care, but could, depending on competencies gained in core training as assessed by an ARCP panel, leapfrog intervening years before entering ST3 or 4. A trainee wishing to make such a move would have to obtain the new position through open competition in the annual selection round; this would also be true for trainees wishing to take up runthrough training in any other specialty or an ACF at ST1 level.

Academic training

Some early years' trainees may wish to pursue an academic surgical career and will devote a significant proportion of their time to additional academic pursuits including research and teaching. For the majority this will lead (later in specialised training) to a period of time in dedicated research, resulting in the award of a higher degree in a scientific area related to their chosen specialty. For others who wish to revert to full time clinical training, this will also be possible, providing that the relevant clinical competences are achieved. General information on academic pathways can be in the gold guide[6] and the website of the National Institute for Health Research (NIHR)[7].

The JCST is keen to support academic careers within surgery and has ensured that the surgical curriculum is flexible enough to accommodate an academic pathway. The curriculum specifies that each individual trainee's training is planned and recorded through the learning agreement.

Academic clinical fellows (ACFs) are expected to achieve the same level of clinical competence as other surgical trainees within the same timeframe. In order to progress through training pathways, the ACF, in addition to demonstrating competence in clinical aspects, will generally be required to spend 25% of their three-year programme on academic pursuit culminating in obtaining a funded research training fellowship in order to undertake a PhD or MD, which they will complete during an out of programme period. This OOPR will generally commence after the two-year core period and will be followed by a return to higher surgical training. A proportion of these trainees will choose to apply for an academic clinical lecturer (ACL) or clinician scientist post.

Who should use the 2017 core curriculum?

All doctors in CT1 & ST1 posts in the surgical specialties commencing on or after August 1st 2017 should use this curriculum. Where an older version of the curriculum is superseded, trainees will be expected to transfer to the most recent version in the interests of patient safety and educational quality. Therefore, those in post prior to this date may if they wish continue to use the 2015 curriculum until January 2019 after which they should transfer to the new curriculum if they are still engaged in core surgical training[8].

The early years of neurosurgical training are governed by the Neurosurgery specialty curriculum within ISCP. Trainees will notice shared elements such as the common content module and the linked requirement to pass the MRCS before progression from the CT2 year, as well as material from the core

[6] https://specialtytraining.hee.nhs.uk/the-gold-guide-fifth-edition-now-available/

[7] http://www.nihr.ac.uk/funding/integrated-academic-training-programme.htm

[8] For a recent GMC position statement on this subject see http://www.gmc-uk.org/20121130_Moving_to_current_curriculum_GMC_position_statement_Nov_2012.pdf.pdf_56437784.pdf

specialty modules for the complementary surgical disciplines Cardiothoracic Surgery, Otolaryngology and Trauma and Orthopaedic Surgery. Core surgical trainees and run-through trainees in any of the surgical specialties other than neurosurgery who rotate through placements to neurosurgical units should use this curriculum, including the core specialty module in neurosurgery, to inform their learning and progression.

Length of training

A similar framework of stages and levels is used by all the surgical specialty curricula and this core surgical training curriculum governs the first two years of training in all except neurosurgery; for most this will equate to the initial stage of training. Trainees progress through the curriculum by demonstrating competence to the required standard. For the majority of trainees (excluding those in less than full time training and those taking statutory leave), these competencies will be gained in 2 years and it is not envisaged that it will be possible to acquire them in less than that time. For training in OMFS it is possible to enter an ST3 post having satisfactorily completed the common content of this curriculum in a CT1 year.

Completing core surgical training satisfactorily as laid out in this curriculum will not lead on to the award of a CCT/CESR CP, but an ARCP outcome 6 at the end of the CT2 year will allow a successful applicant to a higher surgical training programme to take up their ST3 post. An ARCP outcome 1 at the end of ST2 in a runthrough programme will allow a trainee to progress to the intermediate phase of their specialty training[9].

ROLES and RESPONSIBILITIES

In accordance with GMC and curriculum standards:

- There must be an adequate number of appropriately qualified and experienced staff in place to deliver an effective training programme
- Trainers must have the time within their job plan to support the role
- Subject areas of the curriculum must be taught by staff with relevant specialist expertise and knowledge
- Individuals undertaking educational roles must undergo a formal programme of training and be subject to regular review
- Training programmes should provide faculty development opportunities covering an understanding of the curriculum, workplace-based assessment methodology and how to give constructive feedback. They should also include equality and diversity training

It may be entirely appropriate for a surgeon involved in training to hold more than one of the roles described below (e.g. AES and CS/Assessor) where the workload is manageable and the trainee continues to receive training input from several sources. The ISCP requires adherence to a common nomenclature for the trainers who are working directly with the trainee as described below. This is to support the interactive parts of the website, access levels etc. and it is strongly recommended that Deanery equivalent organisations use these titles in the interests of uniformity. Wherever possible

[9] Note that ST3 is considered part of the initial phase of training in the Neurosurgery 2015 curriculum

these roles are harmonised with the Gold Guide but there may be minor variations in nomenclature and tasks that reflect the intercollegiate approach to surgical specialty training.

Schools of Surgery

Although the central organisations responsible for the commissioning and operation of surgical training posts, as well as their quality management on behalf of the GMC, are still colloquially referred to as "The Deanery" this convenient nomenclature is no longer strictly accurate. In England the 13 Local Education & Training Boards (LETBs) of Health Education England have this role. The devolved nations have NHS Education for Scotland, the Wales Deanery and the Northern Ireland Medical & Dental Training Agency. Each of these organisations has a School of Surgery (Surgical Specialties Training Board, SSTB, in Scotland).

They provide the structure for educational, corporate and financial governance and co-ordinate the educational, organisational and quality management activities of surgical training programmes. The Schools draw together the representatives and resources of the Deanery equivalent organisations, Royal Colleges, NHS Hospital Trusts and other relevant providers of training and stakeholders in postgraduate medical education. They ensure the implementation of curricula and assessment methodologies, with associated training requirements for educational supervision. Each school is represented by its Head of School at the Confederation of Postgraduate Schools of Surgery (CoPSS).

Programme director

PDs are responsible for:

- Organising, managing and directing the training programmes, ensuring that the programmes meet curriculum requirements
- Identifying, appointing and supporting local faculty (i.e. AES, CS) including their training where necessary
- Overseeing progress of individual trainees through the levels of the curriculum; ensuring that appropriate levels of supervision, training and support are in place
- Helping the Postgraduate Dean and AES manage trainees who are running into difficulties by identifying remedial placements and resources where required
- Working with delegated College representatives (e.g. college tutors) and Specialty Advisory Committees (SACs) to ensure that programmes deliver the specialty curriculum
- Ensuring that Deanery/LETB administrative support are knowledgeable about curriculum delivery and are able to work with the Colleges, trainees and trainers
- Administering and chairing the annual assessment outcome process (ARCP)

There is great variation in the number of trainees being managed at the various levels within different training regions. This is particularly the case during the early years of training. For this reason, many Deanery equivalent organisations will find that the PD roles may have to be subdivided. It is recommended that the suffix or prefix 'deputy' is used in conjunction with the main title rather than devising a completely new title. This will make clear the general area in which the surgeon is working and should help to avoid confusion.

Surgical tutor

Because core surgical training involves multiple departments and teams within a hospital, there is a need for an individual in each hospital in which core surgical training takes place to act as a local training lead. Consultant surgeons appointed as Surgical Tutors in England and Wales and College Tutors in Scotland serve this function and in particular, support the activities of the relevant core surgical training committee including ARCPs & faculty development. They also act as advocates for ISCP and contribute to the convention of local faculty groups. At the time of writing, it is not clear what arrangements exist at present in Northern Ireland.

Assigned educational supervisor

Educational supervision is a fundamental conduit for delivering teaching and training in the NHS. It takes advantage of the experience, knowledge and skills of expert clinicians / consultant trainers and their familiarity with clinical situations. It ensures interaction between an experienced clinician and a trainee. This is the desired link between the past and the future of surgical practice, to guide and steer the learning process of the trainee. The example set by the educational supervisor is a powerful influence upon the standards of conduct and practice of a trainee.

The GMC's arrangements for the recognition and approval of trainers will be completed by the end of July 2016. In addition to the GMC's statutory requirements for approval of GP trainers, postgraduate deans and medical schools will formally recognise medical trainers approved to be named assigned educational supervisors (AES) and named clinical supervisors (CS).

The AES is usually responsible for up to 4 trainees at any time. The number will depend on factors such as the size of the unit and the availability of suitably trained & approved individuals. The role of the AES is to:

- Have overall educational and supervisory responsibility for the trainee in a given placement. Usually a core trainee will have the same AES as they rotate between placements in the same trust to provide a degree of continuity
- Ensure that an induction to the unit (where appropriate) has been carried out
- Ensure that the trainee is familiar with the curriculum and assessment system relevant to the level/stage of training and undertakes it according to requirements
- Ensure that the trainee has appropriate day-to-day supervision appropriate to their stage of training
- Act as a mentor to the trainee and help with both professional and personal development
- Agree a learning agreement; setting, agreeing, recording and monitoring the content and educational objectives of each placement using the appropriate tool within ISCP
- Discuss the trainee's progress with each trainer with whom a trainee spends a period of training and involve them in the formal report to the annual review process
- Undertake regular formative/supportive appraisals with the trainee (typically one at the beginning, middle and end of a placement) and ensure that both parties agree to the outcome of these sessions and keep a record within ISCP
- Regularly inspect the trainee's ISCP portfolio and ensure that the trainee is making the necessary clinical and educational progress
- Ensure patient safety in relation to trainee performance by the early recognition and management of those doctors in distress or difficulty

- Inform trainees of their progress and encourage trainees to discuss any deficiencies in the training programme, ensuring that records of such discussions are kept
- Keep the PD informed of any significant problems that may affect the trainee's training
- Provide an end of placement AES report for the ARCP

In order to become an AES, a trainer must have demonstrated an interest and ability in teaching, training, assessing and appraising. They must have appropriate access to teaching resources and time for training allocated to their job plan. AESs must have undertaken training in a relevant course of instruction offered by an appropriate educational institution and must keep up-to-date with developments in training. They must have access to the support and advice of their senior colleagues regarding any issues related to teaching and training and to keep up-to-date with their own professional development.

Clinical supervisor

Clinical supervision is vital to ensuring patient safety and the high quality service of trainees. CSs are responsible for delivering teaching and training under the delegated authority of the AES. They:

- Carry out assessments as requested by the AES or the trainee. This will include delivering feedback to the trainee and validating assessments
- Ensure patient safety in relation to trainee performance
- Liaise closely with other colleagues, including the AES, regarding the progress and performance of the trainee with whom they are working during the placement
- Keep the AES informed of any significant problems that may affect the trainee's training
- Provide an end of placement report which will form part of the AES report which, in turn, informs the ARCP process

While CSs require training and must undertake continuous personal development as educators, the requirements for GMC recognition and approval are less stringent than for a named AES.

Assessor

Assessors will carry out a range of assessments and provide feedback to the trainee and the AES, which will support judgements made about a trainee's overall performance. Assessments during training will usually be carried out by clinical supervisors (consultants) but other members of the surgical team, including (for the MSF) those who are not medically qualified, may be tasked with this role. Those carrying out assessments must be appropriately qualified in the relevant professional discipline and trained in the methodology of workplace based assessment. This does not apply to MSF raters. The role of assessor is not intended to be used as a formal title, but describes a function that will be intrinsic to many of the roles described in the ISCP.

Trainee

The trainee is required to take responsibility for his/her learning and to be proactive in initiating appointments to plan, undertake and receive feedback on learning opportunities. The trainee is responsible for ensuring that:

- They fulfil the requirements made of them by Good Medical Practice[10] and Good Surgical Practice[11]
- They register as a trainee with the JCST and sign up to both eLogbook and ISCP
- They ensure that their eLogbook is linked to their ISCP portfolio and undertake to become familiar with the full functionality of both of these web based training tools
- A learning agreement is put in place with the AES
- Opportunities to discuss progress are identified
- Assessments are undertaken, according to the requirements of the curriculum
- Operative cases are recorded in the eLogbook contemporaneously and that other evidence is recorded in the ISCP portfolio in good time
- They keep the competencies they acquired during the Foundation programme up to date

TEACHING and LEARNING

The balance between didactic teaching and learning in clinical practice will change as the trainee progresses through the training programme, with the former decreasing and the latter increasing. A number of people from a range of professional groups will be involved in teaching. In accordance with GMC standards, subject areas of the curriculum must be taught by staff with relevant specialist expertise and knowledge. Specialist skills and knowledge are usually taught by consultants and more advanced trainees; whereas the more generic aspects of practice can also be taught by the wider multidisciplinary team. The Assigned Educational Supervisor (AES) is key as he/she agrees with each trainee how he/she can best achieve his or her learning objectives within a placement.

Establishing a learning partnership creates the professional relationship between trainer (AES, CS) and trainee (learner) that is essential to the success of the teaching and learning programme. The learning partnership is enhanced when:

- The trainer understands:
    - Educational principles, values and practices and has been appropriately trained
    - The role of professional behaviour, judgement, leadership and team-working in the trainee's learning process
    - The specialty component of the curriculum
    - Assessment theory and methods
- The learner:
    - Understands how to learn in the clinical practice setting, recognising that everything they see and do is educational
    - Recognises that although observation has a key role to play in learning, action (doing) is essential;
    - Is able to translate theoretical knowledge into surgical practice and link surgical practice with the relevant theoretical context
    - Uses reflection to improve and develop practice
- There is on-going dialogue in the clinical setting between teacher and the learner

[10]http://www.gmc-uk.org/static/documents/content/GMP_.pdf

[11]https://www.rcseng.ac.uk/surgeons/surgical-standards/professionalism-surgery/gsp/documents/good-surgical-practice-pdf

- There are adequate resources to provide essential equipment and facilities
- There is adequate time for teaching and learning

Trainee-led learning

The ISCP encourages a learning partnership between the trainee and AES in which learning is trainee-led and trainer-guided. Trainees are expected to take a proactive approach to learning and development and towards working as a member of a multi-professional team. Trainees are responsible for:

- Utilising opportunities for learning throughout their training
- Triggering assessments and appraisal meetings with their trainers, identifying areas for observation and feedback throughout placements
- Maintaining an up to date learning portfolio
- Undertaking self and peer assessment
- Undertaking regular reflective practice

Learning opportunities

There are many learning opportunities available to trainees to enable them to develop their knowledge, clinical and professional judgement, technical and operative ability and behaviour as a member of the profession of surgery. The opportunities may be encountered in the workplace, in formal teaching settings or be self-contained.

Learning from practice

The workplace provides learning opportunities on a daily basis for surgical trainees, based on what they see and what they do. Whilst in the workplace, trainees will be involved in supervised clinical practice, primarily in a hospital environment in wards, clinics or theatre. The trainees' role in these contexts will determine the nature of the learning experience.

Learning will start with observation of a trainer (not necessarily a doctor) and will progress to assisting a trainer; the trainer assisting/supervising the trainee and then the trainee managing a case independently but with access to expert help. The level of supervision will decrease and the level of complexity of cases will increase as trainees become proficient in the appropriate technical skills and are able to demonstrate satisfactory professional judgement. Continuous systematic feedback, both formal and informal, and reflection on practice are integral to learning from practice, and will be assisted by WBAs.

Surgical learning is largely experiential in its nature with any interaction in the workplace having the potential to become a learning episode. The curriculum encourages trainees to manage their learning and to reflect on practice. Trainees are encouraged to take advantage of clinical cases, audit and the opportunities to shadow peers and consultants.

Theatre (training) lists

Training lists on selected patients enable trainees to develop their surgical skills and experience under supervision. The lists can be carried out in a range of settings, including day case theatres, main theatres endoscopy suites and minor injuries units. Each surgical procedure can be considered an

integrated learning experience including. The syllabus is designed to ensure that teaching is systematic and based on progression. Even within cores surgical training, the level of supervision will decrease and the level of complexity of cases will increase as trainees become proficient in the appropriate technical skills and are able to demonstrate satisfactory professional judgement. Feedback on progress is facilitated by DOPS and PBA on all aspects of the procedure, from pre-operative planning and preparation, to the procedure itself and subsequent post-operative management.

The suggested volume of supervised operative experience made available to core surgical trainees varies between posts and specialties. In general though, PDs and AESs should work towards increasing the operative exposure of their core trainees by providing 3 to 4 sessions in an average working week. Posts in non-operative specialties such as intensive care and neurology (ST1 neurosurgery only) cannot be expected to deliver this ideal but thought should be given to optimising exposure to ward based procedures and increasing operative exposure in adjacent posts to compensate.

Out-patient clinics

Trainees build on clinical examination skills developed during the Foundation Programme. There is a progression from observing expert clinical practice in clinics to assessing patients themselves, under direct observation initially and then independently, and presenting their findings to the trainer. Trainees will assess new patients and will review/follow up existing patients. Feedback on performance will be obtained primarily from the CEX and CBD together with informal feedback from trainers. Reflection by the trainee will strengthen the impact of such feedback on learning.

While time in clinic provides a unique set of learning opportunities, core surgical trainees should not be used by training organisations to provide unsupervised service in the out-patient department. The suggested volume of clinic time made available to core surgical trainees may vary between posts and specialties. In general though, PDs and AESs should work towards providing at least one and no more than 2 sessions in clinic in an average working week.

Ward rounds

As in the other areas, trainees will have the opportunity to take responsibility for the care of in-patients appropriate to their level of training and need for supervision. The objective is to develop surgeons as effective communicators both with patients and with other members of the team. This will involve taking consent, adhering to protocols, pre-operative planning and preparation and post-operative management. Ward rounds with senior clinicians provides a set of opportunities for learning. Feedback on performance may be formalised using the full range of WBAs; MSF, CBD, CEX, DOPS and PBA.

Learning from formal teaching

Work based practice is supplemented by an educational programme of courses, local postgraduate teaching sessions arranged by the specialty training committees or schools of surgery and regional, national and international meetings. Courses are delivered by the Royal Colleges, specialty associations and locally by Deanery equivalent organisations, and have a role at all levels. In core surgical training basic surgical skills courses, Care of the Critically Ill Surgical Patient and early years'

specialty skills programmes should be considered. Trainees must show evidence that they have gained competence in the management of trauma through a valid certificate of the Advanced Trauma Life Support (ATLS), Advanced Paediatric Life Support (APLS) or equivalent, at the completion of core training.

Self-directed learning

Trainees are encouraged to establish study groups, journal clubs and conduct peer review. There will be opportunities for trainees to learn with peers at a local level through postgraduate teaching and discussion sessions and nationally with examination preparation courses. Trainees are expected to undertake personal study in addition to formal and informal teaching. This will include using text books, publications, e-learning modules, distance learning packages and reflective practice. Trainees are expected to use the developmental feedback they get from their trainers in appraisal meetings and from assessments to focus further research and practice.

Reflective practice is a very important part of self-directed learning and is a vital component of continuing professional development. It is an educational exercise that enables trainees to explore with rigour, the complexities and underpinning elements of their actions in surgical practice in order to refine and improve them. Reflection in the oral form is very much an activity that surgeons engage in already and find it useful and developmental. Writing reflectively adds more to the oral process by deepening the understanding of surgeons about their practice. Written reflection offers different benefits to oral reflection which include a record for later review, a reference point to demonstrate development and a starting point for shared discussion.

Written reflection recorded within e-portfolios is potentially accessible to the courts without the data subject's consent. The realisation of this by the training community has led many to re-appraise the role of written reflection. Trainees wishing to learn more about the legal framework in which such writing exists should consult the guidance from the Academy of Medical Royal Colleges[12].

Simulation based training

In the delivery of this curriculum it is expected that programmes will make use of simulation based training and many of the courses listed above make use of simulated scenarios, part task trainers and animal parts. It is well recognised that simulation training augments workplace training and can improve patient safety by allowing the trainee to learn basic skills through repeated practice in a non-threatening environment until mastery is achieved. Simulation based training augments knowledge acquisition in those areas of the curriculum to which the trainee is not exposed in day to day clinical practice. It also encourages self-directed learning either at the workplace or at a location of trainee's choosing.

Facilities

Opportunities and facilities for simulation based training and Technology Enhanced Learning (TEL) are known to be available across the UK. There are opportunities for these resources to be shared across programmes and specialties and in a multi-professional format. Deaneries and LETBs should determine how they combine the teaching methods, but it is expected that simulation based training

[12] Guidance for entering information onto e-portfolios. AoMRC Oct 2016

will be one of the components used in order to ensure coverage of the full breadth of the syllabus. An important benefit of simulation based training is the opportunity it gives for regular and frequent practice. Delivery methods include in workplace teaching, regular in programme teaching and focussed courses (Enhanced Induction or "Boot Camps").

Learning outcomes to be facilitated by the use of simulation based training

It is expected that the appropriate practical procedures listed in the CST curriculum should be taught by simulation as early as possible in Year One, with further simulation teaching, including refresher training where necessary, involving human factors training carried out over the rest of the programme. Throughout the syllabus of this curriculum, technical skills particularly suited to facilitation by the use of simulation based training are indicated by **(SR)** where the use of these teaching methods is strongly recommended and **(D)** where it is considered desirable. Areas in which simulation based training is expected to be utilised include:

- personal preparation for surgery
- administration of anaesthesia
- skin incision
- the practice of suturing and knot tying using jigs and foam
- methods of obtaining haemostasis
- tissue retraction
- insertion of chest drain on animal carcass parts
- tissue handling
- biopsy techniques
- anastomosis of animal intestine
- generic endoscopic tasks in laparoscopic box trainers
- high fidelity simulation of critical illness and peri-arrest scenarios
- surgical airway techniques on animal carcass parts
- human factors training including attention to situational awareness, decision making, communication and leadership & teamwork in simulated operating and emergency rooms
- computerised haptic simulators as relevant to specialty

Assessment

Existing WBAs should be used to provide formative assessment where simulation training is used as part of the overall training package. These WBAs will feed into the ARCP alongside those carried out in clinical practice. A particular application is to ensure assessment of those critical conditions which a trainee may not necessarily encounter during their clinical work. It is expected that these will contribute towards the evidence considered in the award of an outcome 6 in the ST2 ARCP.

Supervision

Responsibility for both the quality of patient care provided by the trainee and the quality of training received by the trainee is delegated by the local education provider to clinical supervisors. Supervision in the clinical environment must ensure the safety of the patient by encouraging safe and effective practice and professional behaviour by the trainee. At the same time, trainees have a responsibility to recognise and work within the limits of their professional competence and ask for help when it is required. The level of supervision will change in line with the trainee's progression through the stages of the curriculum, enabling trainees to develop independent learning. Great skill is brought to bear

by supervisors, in discussion with trainees, in the process of setting the balance between hands on supervision and the freedom required to develop independent practice. In core surgical training, unsupervised practice by trainees is unlikely to be appropriate, either for the protection of patient safety or for the optimisation of training.

As well as the governance function described, supervision has regulatory, educational and pastoral functions. Both CS and AES are responsible for writing summative and integrative statements describing performance in training at the end of each placement. In addition, the CS is often responsible for a large proportion of a trainee's workplace based assessment. The AES is responsible for summarising the annual multisource feedback and deciding whether cause for concern is raised by it. The AES is also the usual gatekeeper to the resource of study leave and its associated budget.

Within the context of the experiential learning of surgical practice, the role of supervisor as educator is key. He/she acts as coach, mentor and role model, giving constant feedback on performance in the form of shared observation, pointers for improvement, answers to questions and guidance based on their own experience. The role model function is particularly powerful and all supervisors need to be aware of the impact their own behaviour has on their trainees. Away from the clinic, the opportunity to discuss critical incidents with an educational supervisor extends the effect of independent reflection. The setting of objectives and regular appraisal of progress against them within the learning agreement gives an essential structure to training.

There should be no doubt that core surgical training is highly demanding for its trainees and it is not uncommon for pastoral support to be required. The trainee's educational supervisor represents an ideal first port of call for a trainee with a problem, whether to discuss an observed event before submitting an incident report, to reflect on a complaint received or to use as a sympathetic ear for a personal issue. The AES can signpost support services provided by the local deanery equivalent working in the relevant area and often intervene on the trainee's behalf in workplace disputes.

ASSESSMENT

Overview of assessment within the Intercollegiate Surgical Curriculum Programme

The GMC uses the following definitions which this curriculum adopts:

Assessment – a systematic procedure for measuring a trainee's progress or level of achievement, against defined criteria to make a judgement about a trainee

Assessment system - refers to an integrated set of assessments which is in place for the entire postgraduate training programme and which is blueprinted against and supports the approved curriculum

The purpose of the assessment system is to:

- Determine whether trainees are meeting the standards of competence and performance specified at various stages in the curriculum for surgical training
- Provide systematic and comprehensive feedback as part of the learning cycle
- Determine whether trainees have acquired the common and specialty-based knowledge, clinical judgement, operative and technical skills, and generic professional behaviour and

leadership skills required to practise at the level of CCT/CESR CP in the designated surgical specialty
- Address all the domains of Good Medical Practice and conform to the principles laid down by the GMC. A blueprint is available.[13]

The individual components of the assessment system are:
- WBAs covering knowledge, clinical judgement, technical skills and professional behaviour and attitudes. These are complemented by the surgical logbook of procedures to establish the volume of operative experience acquired
- Examinations held at key stages; during the early years of training and towards the end of specialty training
- The learning agreement and the AES's report
- An annual review of competence progression (ARCP)

The assessments methods selected meet the following criteria.
Valid - to ensure face validity, the workplace based assessments comprise direct observations of workplace tasks. The complexity of the tasks increases in line with progression through the training programme. To ensure content validity the assessment instruments have been blueprinted against all the standards of Good Medical Practice.
Reliable – reliability is ensured by the use of multiple measures of outcome using diverse observers and methods to permit triangulation. The planned, systematic and permanent programme of assessor training for trainers and AESs through the LETBs is intended to gain maximum reliability of placement reports.
Feasible - the practicality of the assessments in the training and working environment has been taken into account. The assessment should not add a significant amount of time to the workplace task being assessed and assessors should be able to complete the scoring and feedback part of the assessment in 5-10 minutes.
Cost-effectiveness – once staff have been trained in the assessment process and are familiar with the ISCP website, the only significant additional costs should be any extra time taken for assessments and feedback and the induction of new AESs. The most substantial extra time investment will be in the regular appraisal process for units that did not previously have such a system.
Opportunities for feedback – all the assessments, both those for learning and of learning, include a feedback element. Structured feedback is a fundamental component of high quality assessment and is incorporated in all the WBA tools in ISCP.
Impact on learning - the WBAs are all designed to include immediate feedback as part of the process. A minimum number of three appraisals with the AES per clinical placement is built into the training system. The formal examinations all provide limited feedback as part of the summative process. The assessment process thus has a continuous developmental impact on learning. The emphasis given to reflective practice within the portfolio also impacts directly on learning.

Workplace based assessments

[13] https://www.iscp.ac.uk/static/public/assessment_system_blueprint.pdf

The primary purpose of WBA is to provide short loop feedback between trainers and their trainees – a formative assessment to support learning[14]. They are designed to be mainly trainee driven but may be triggered or guided by the trainer. The number of types and intensity of each type of WBA in any one assessment cycle will be initially determined by the learning agreement fashioned at the beginning of a training placement and regularly reviewed. The intensity may be altered to reflect progression and trainee need. For example, a trainee in difficulty would undertake more frequent assessments above an agreed baseline for all trainees. In that sense WBAs meet the criterion of being adaptive.

WBAs are designed to:

Provide feedback to trainers and trainees as part of the learning cycle

The most important use of the workplace-based assessments is in providing trainees with feedback that informs and develops their practice (formative). Each assessment is completed only for the purpose of providing meaningful feedback on one encounter. The assessments should be viewed as part of a process throughout training, enabling trainees to build on assessor feedback and chart their own progress. Trainees should complete more than the minimum number identified.

Provide formative guidance on practice

Surgical trainees can use different methods to assess themselves against important criteria (especially that of clinical reasoning and decision-making) as they learn and perform practical tasks. The methods also encourage dialogue between the trainee and AES and other clinical supervisors.

Encompass the assessment of skills, knowledge, behaviour and attitudes during day-to-day surgical practice

WBA is usually trainee led; the trainee chooses the timing, the case and assessor under the guidance of the AES via the learning agreement. Although is the trainee's responsibility to ensure completion of the required number of the agreed type of assessments by the end of each placement, it is recognised that some training environments can make this an excessive challenge. Trainees should contact their training programme director or local School of Surgery for support in such circumstances. Supervising trainers may on occasion initiate the capture of a valuable learning experience in a WBA.

Provide a reference point on which current levels of competence can be compared with those at the end of a particular stage of training

The primary aim is for trainees to use assessments throughout their training programmes to demonstrate their learning and development. At the start of a level it would be normal for trainees to have some assessments which are less than satisfactory because their performance is not yet at the standard for the completion of that level. In cases where assessments are less than satisfactory, trainees should repeat assessments as often as required to show progress. A consistent level of performance in a WBA, especially if repeated on multiple occasions and by multiple assessors, provides good evidence of attainment by the trainee of that level of competence.

Inform the (summative) assessment of the AES at the completion of each placement

[14] https://www.iscp.ac.uk/static/public/wba_guidance_goodpractice.pdf

Although the principal role of each individual WBA is formative, the summary evidence provided by a large number of them can be used to contribute towards the summative assessment of a trainee's performance over a period of time, and of levels of competence attained. WBAs will be used to inform the AES report submitted to the annual review process and will contribute to the decision made as to how well the trainee is progressing.

Contribute towards a body of evidence held in the web-based learning portfolio and made available for the Annual Review of Competence Progression (ARCP) panel and planned educational reviews

At the end of a period of training, the trainee's whole portfolio will be reviewed. The accumulation of formative assessments will be one of a range of indicators that inform the decision as to satisfactory completion of training at the annual review of competence progression.

Practical use of WBAs

In order for WBAs to fulfil the role expected of them and act as a body of evidence on which high stakes decisions about progression can be based they need to be completed with care and diligence and not become a "tick box" exercise. While their completion and presentation to the ARCP panel remains the responsibility of the trainee, trainers and supervisors have a duty to make themselves available to complete WBAs and, particularly at the beginning of surgical training, to encourage good practice in their collection.

Broadly speaking, there are two methods of completing WBAs; real time completion and completion by ticketed request. Most clinical environments in 2017 have a desktop computer on every corner and most trainees and trainers have access to a web enabled mobile device and this makes real time completion of WBAs immediately following training interactions in theatre and clinic and on the ward a real possibility. This method has the advantage of capturing feedback and assessment of performance as accurately as possible but trainee reflection on the events is less easy to capture. Where necessary a matching journal entry can be recorded.

Ticketed requests are often preferred in highly time pressured situations where even the few minutes needed to complete a WBA form is not available. Textual comments are often completed by the trainee and reviewed by the trainer before the WBA is modified if necessary and either validated or rejected. This method allows greater time for trainee reflection on their performance. However, any more than a brief delay between event and WBA completion by the trainer risks a time dependent delay on fine recall of both performance and ideas for development. There is also a probity risk involved in the trainee describing their own performance, unless checking of the text is carefully conducted by the trainer prior to validation. In core training it is recommended that trainees and trainers become adept at both methods and use them as circumstance dictates.

The workplace based assessment methods used are:

- CBD (Case Based Discussion)
- CEX (Clinical Evaluation Exercise)
- PBA (Procedure-based Assessment)
- DOPS (Direct Observation of Procedural Skills in Surgery)
- Multi Source Feedback (360° Assessment Tool)
- Assessment of Audit

- Observation of Teaching
- NOTSS (Non-technical skills for surgeons)

Case based discussion (CBD)

The CBD was developed for the foundation training period and has been contextualised to the surgical environment. This method is designed to assess clinical judgement, decision-making and the application of medical knowledge in relation to patient care in cases for which the trainee has been directly responsible. The method is particularly designed to test higher order thinking and synthesis as it allows assessors to explore deeper understanding of how trainees compile, prioritise and apply knowledge. The CBD is not focused on the trainees' ability to make a diagnosis nor is it a viva-style assessment. The CBD should be linked to the trainee's reflective practice.

The process is a structured, in-depth discussion between the trainee and the assessor about how a clinical case was managed by the trainee; talking through what occurred, considerations and reasons for actions. By using clinical cases that offer a challenge to the trainee, rather than routine cases, the trainee is able to explain the complexities involved and the reasoning behind choices they made. It also enables the discussion of the ethical and legal framework of practice. It uses patient records as the basis for dialogue, for systematic assessment and structured feedback. As the actual record is the focus for the discussion, the assessor can also evaluate the quality of record keeping and the presentation of cases.

Most assessments take no longer than 15-20 minutes. After completing the discussion and filling in the assessment form, the AES should provide immediate feedback to the trainee. Feedback would normally take about 5 minutes.

Clinical evaluation exercise (CEX)

The CEX is a method of assessing skills essential to the provision of good clinical care and to facilitate feedback. It assesses the trainee's clinical and professional skills on the ward, on ward rounds, in emergency departments or in outpatient clinics. It was designed originally by the American Board of Internal Medicine but has been contextualised to the surgical environment.

Trainees will be assessed on different clinical problems that they encounter from within the curriculum in a range of clinical settings. Trainees are encouraged to choose a different assessor for each assessment but one of the assessors may be the current AES. Each assessor must have expertise in the clinical problem. The assessment involves observing the trainee interact with a patient in a clinical encounter. The areas of competence covered include: history taking, physical examination, professionalism, clinical judgement, communication skills, organisation/efficiency and overall clinical care. Most encounters should take between 15-20 minutes.

Assessors do not need to have prior knowledge of the trainee. The assessor's evaluation is recorded on a structured form that enables the assessor to provide developmental verbal feedback to the trainee immediately after the encounter. Feedback would normally take about 5 minutes.

Procedure-based assessment (PBA)

The PBA assesses the trainee's technical, operative and professional skills in a range of specialty procedures or parts of procedures during routine surgical practice up to the level of certification. PBAs provide a framework to assess practice and facilitate feedback in order to direct learning. The PBA was originally developed by the Orthopaedic Competence Assessment Project (OCAP) for T&O and has been further developed by the SACs for all the surgical specialties. The assessment method uses two principal components:

- A series of competences within six domains. Most of the competences are common to all procedures, but a relatively small number of competences within certain domains are specific to a particular procedure.
- A global assessment that is divided into four levels of overall global rating. The highest rating is the ability to perform the procedure to the standard expected of a specialist in practice within the NHS (the level required for the CCT or CESR CP).

The assessment form is supported by a worksheet consisting of descriptors outlining desirable and undesirable behaviours that assist the assessor in deciding whether or not the trainee has reached a satisfactory standard for certification, on the occasion observed, or requires development. The procedures chosen should be representative of those that the trainee would normally carry out at core level. The trainee generally chooses the timing and makes the arrangements with the assessor. The assessor will normally be the trainee's CS or another surgical consultant trainer. One of the assessors may be the trainee's current AES. Some PBAs may be assessed by senior trainees depending upon their level of training and the complexity of the procedure. Trainees are encouraged to request assessments on as many procedures as possible with a range of different assessors.

Assessors do not need to have prior knowledge of the trainee. The assessor will observe the trainee undertaking the agreed sections of the PBA in the normal course of workplace activity (usually scrubbed). Given the priority of patient care, the assessor must choose the appropriate level of supervision depending on the trainee's stage of training. Trainees will carry out the procedure, explaining what they intend to do throughout. The assessor will provide verbal prompts, if required, and intervene if patient safety is at risk. The assessment can be used in part to record performance in the part of a procedure observed by the assessor, for example, obtaining consent.

Direct observation of procedural skills in surgery (DOPS)

The DOPS for core level trainees (CT1/ST1 and CT2/ST2) is used to assess the trainee's technical, operative and professional skills in a range of basic diagnostic and interventional procedures, or parts of procedures, during routine surgical practice and to facilitate developmental feedback. Some specialties may also use specialty level DOPS in higher specialty training. The DOPS is used in simpler environments and can take place in wards or outpatient clinics as well as in the operating theatre. It is a surgical version of an assessment tool originally developed and evaluated by the UK Royal Colleges of Physicians.

The DOPS form can be used routinely every time the trainer supervises a trainee carrying out one of the specified procedures, with the aim of making the assessment part of routine surgical training practice. The procedures reflect the index procedures in each specialty syllabus which are routinely carried out at the trainees' workplace. The assessment involves an assessor observing the trainee perform a practical procedure within the workplace. Assessors do not need to have prior knowledge

of the trainee. The assessor's evaluation is recorded on a structured form that enables the assessor to provide verbal developmental feedback to the trainee immediately afterwards. Trainees are encouraged to choose a different assessor for each assessment but one of the assessors may be the current AES. Most procedures take no longer than 15-20 minutes. The assessor will provide immediate feedback to the trainee after completing the observation and evaluation. Feedback will normally take about 5 minutes.

The DOPS form is completed for the purpose of providing feedback to the trainee. The overall rating on any one assessment can only be completed if the entire procedure is observed. A judgement will be made on completion of the placement about the overall level of performance achieved in each of the assessed surgical procedures.

Mandatory WBAs

This curriculum picks out some fundamental competencies within the common content module which are required to be evidenced using a specified WBA. These are indicated in the syllabus but compiled here for convenience. Appendix 1 contains completed templates for the new DOPS required.

Competency	**Form to use**	**Number required**	**Level of performance required**
Take a tailored history and perform a relevant examination in an outpatient clinic	CEX (Clinic; history & exam)	3	2
Take a tailored history and perform a relevant examination for an acutely unwell patient	CEX (A&E/ward; history & exam)	3	2
Effective hand washing, gloving and gowning	DOPS (Surgeon preparation)	3	4
Accurate, effective and safe administration of local anaesthetic	DOPS (Administration of local anaesthetic)	3	3
Preparation and maintenance of an aseptic field	DOPS (Preparation of aseptic field)	3	3
Incision of skin and subcutaneous tissue	DOPS (Incision)	3	3
Closure of skin and subcutaneous tissue	DOPS (Closure)	3	3
Completion of WHO check list (time out and sign out)	DOPS (WHO checklist completion)	3	3

Multi-source feedback (MSF)

The MSF, also known as 360° or peer assessment, is a method of assessing professional competence within a team-working environment and providing developmental feedback to the trainee. Trainees should complete the MSF once a year. The trainee's AES may request further assessments if there are areas of concern at any time during training. Time should be allowed for raters to submit their online assessments and the generation of a trainee's personalised assessment chart for discussion with the AES before the end of the placement, and for a further MSF to be performed before the end of the training year, if required.

Surgical trainees work as part of a multi-professional team with other people who have complementary skills. Trainees are expected to understand the range of roles and expertise of team members in order to communicate effectively to achieve high quality service for patients. MSF comprises a self-assessment and assessments of a trainee's performance from a range of co-workers. A minimum of 12 raters are chosen by the trainee and will always include a range of colleagues covering different grades and environments (e.g. ward, theatre, outpatients) but not patients. The AES may ask the trainee to select additional raters based on the response of the initial panel.

Feedback is in the form of a peer assessment chart that enables comparison of the self-assessment with the collated views received from co-workers for each of the 16 competences including a global rating, on a 3-point scale. The competences map across to the standards of Good Medical Practice and to the core objectives of the intercollegiate surgical curriculum.

The AES will meet with the trainee to discuss the feedback on performance in the MSF. Trainees are not given access to individual assessments. The method enables serious concerns, such as those about a trainee's probity and health, to be highlighted in confidence to the AES, enabling appropriate action to be taken. The AES signs off the trainee's MSF assessment and make comments for the ARCP. They can also recommend a repeat MSF.

The observation of teaching (optional WBA)

The observation of teaching WBA provides a framework for formative feedback to trainees on an observed teaching session. It was adapted from the Teaching Observation Tool developed by the Joint Royal Colleges of Physicians' Training Board (JRCPTB) for use in surgery. It is an optional tool, intended for use in assessing formal teaching but can be adapted to any example of teaching by a trainee that is directly observed by the assessor. Assessors may be any suitably experienced educator.

The assessment of audit (optional WBA)

The assessment of audit reviews a trainee's competence in completing an audit. Like all WBAs, it is intended to support reflective learning through structured feedback. It was adapted for surgery from an instrument originally developed and evaluated by the UK Royal Colleges of Physicians. The assessment can be undertaken whenever an audit is presented or otherwise submitted for review. It is recommended that more than one assessor takes part in the assessment, and this may be any clinician with experience appropriate to the process. Assessors do not need any prior knowledge of the trainee or their performance to date, nor do the assessors need to be the trainee's current AES or CS. Verbal feedback should be given immediately after the assessment and should take no more than five minutes to provide. A summary of the feedback with any action points should be recorded on the assessment of audit form and uploaded into the trainee's portfolio.

Non-technical skills for surgeons (NOTSS, optional WBA)

The non-technical skills for surgeons (NOTSS) system, is a behavioural rating system developed by a multi-disciplinary group comprising surgeons, psychologists, and anaesthetists in Scotland. NOTSS describes the main observable non-technical skills associated with good surgical practice. When used in conjunction with medical knowledge and clinical skills, NOTSS can be used to observe and rate surgeons' behaviour in theatre in a structured manner and allow a clear and transparent assessment of training needs. The system is suitable for use in the operating theatre or operating theatre

simulator, but is not recommended for formal summative assessment until a more complete evaluation has been conducted.

The system was developed according to a number of design criteria and comprises only behaviours that are directly observable or can be inferred through communication. The system has been developed to have wide-ranging coverage of non-technical skills in as few categories and elements as possible, and covers behaviours in the intraoperative (gloves on, scrubbed up) phase of surgery. Surgeons developed the skills taxonomy, generated behavioural markers and ensured that the system was in surgeons' language and free of jargon.

The NOTSS system comprises a three level hierarchy consisting of categories (at the highest level), elements, and behaviours. Four skill categories and 12 elements make up the skills taxonomy (see table 1). Each category and element are defined in the handbook[15], and example good and poor behaviours are provided for each element. These exemplar behaviours were generated by consultant surgeons and are intended to be indicative rather than a comprehensive list.

The NOTSS system is intended to be used as a debrief tool for consultant surgeons who are involved in training, to rate trainees' non-technical performance, and give feedback in a structured manner immediately after the case. Initial piloting of this method suggests that the debrief takes under five minutes to complete.

Other assessments

The surgical logbook

The eLogbook is the surgical trainee's record of all operative procedures performed on patients. It allows the trainee to build a complete record of their operative experience. Maintenance of an up to date logbook is a mandatory requirement of the curriculum. The logbook complements the evidence of competence provided by operative WBAs (ie PBAs and DOPSs) by providing evidence of volume of experience. Trainees record the level of supervision in each procedure using the scheme described in syllabus standards below. All entries to the portfolio must respect both the confidentiality of colleagues and patients and any appropriate data protection processes and policies. Trainees must ensure that their eLogbook is linked to their ISCP portfolio to support appraisal, assessment and audit.

Supervisor reports

For each placement, trainees are required to submit reports regarding their overall performance from clinical supervisors and their AES. The AES report is highly structured and represents a synthesis of opinion and evidence intended to inform the ARCP panel, rather than reflecting a primary assessment of performance. The clinical supervisor report (CSR) however does represent an assessment of performance based on observation over the course of a placement. It should include statements about the trainee's performance in clinic, in the provision of acute care and in the operating theatre. To guard against positive or negative bias it is strongly recommended that reports from more than one clinical supervisor are recorded for each placement. A simple structure for use in core surgical training is provided in Appendix 1.

[15] https://www.iscp.ac.uk/static/help/NOTSS_Handbook_2012.pdf

Certificates

The MRCS examinations and the ATLS course are required assessment components of core surgical training and certificates of completion of each are required as evidence before the award of an outcome 6. The current intercollegiate regulations for the award of the MRCS or MRCS(ENT) are available from the ICBSE[16]. Possession of DO-HNS without MRCS is not an adequate qualification to satisfy the requirements of this curriculum. The Advanced Trauma Life Support course (ATLS) is a registered trade mark of the American College of Surgeons and current provider status at the point of final ARCP is required for the award of an outcome 6. For those pursuing a career in paediatric surgery APLS provider status is an adequate alternative and for those pursuing a career in military surgery BATLS is acceptable. Completion of a basic paediatric life support course and a level 3 safeguarding or child protection course is required for completion of the core specialty module for Paediatric Surgery.

Annual review of competence progression (ARCP)

Purpose of the ARCP

The ARCP is a formal process, arranged by the Deanery equivalent organisation, which scrutinises each surgical trainee's suitability to progress to the next stage of, or complete, the training programme. It follows on from the appraisal process and bases its recommendations on the evidence that has been gathered in the trainee's ISCP portfolio during the period between ARCP reviews. The ARCP records whether the required curriculum competences and experience are being acquired, and that this is at an appropriate rate. It also provides a coherent record of a trainee's progress. The ARCP is not in itself an assessment exercise of clinical or professional competence.

The ARCP should normally be undertaken on at least an annual basis for all trainees in surgical training. Some Deanery equivalent organisations plan to arrange two ARCPs each year in the early years of training. An ARCP panel may be convened more frequently if there is a need to deal with progression issues outside the normal schedule. Further information on this process can be found in the Reference Guide to Postgraduate Specialty Training in the UK; the Gold Guide[17].

Preparation for the ARCP

The trainee's learning portfolio provides the evidence of progress. It is the trainee's responsibility to ensure that the documentary evidence is complete in good time for the ARCP. This should normally be contained within ISCP.

The ARCP panel

Please note that during the time of the panel meeting, members of an ARCP panel will have access to the portfolios of the trainees they review. Panel members are appointed by the Deanery equivalent organisation and are likely to include some of the following:

- Postgraduate Medical Dean or representative; required for the award of unsatisfactory outcomes
- PD; usually taking the role of panel chair
- Chair of the local core surgical training committee

[16] http://www.intercollegiatemrcsexams.org.uk/

[17] https://specialtytraining.hee.nhs.uk/the-gold-guide-fifth-edition-now-available/

- External representatives from other core surgical training programmes
- Programme AESs; it is recommended that an AES who has been responsible for the placements being reviewed excuse themselves from the panel for that trainee. This is mandatory if there is a possibility of an unsatisfactory outcome being awarded
- Academic representatives (for academic programmes, who have not been directly responsible for the trainee's placements)
- A representative from an employing authority
- Lay/patient representative

ARCP Outcomes

Outcome 1 Achieving progress and competences at the expected rate and should progress to the next grade

Outcome 2 Development of specific competences required – additional training time not required

Outcome 3 Inadequate progress by the trainee – additional training time required

Outcome 4 Released from training programme with or without specified competences

Outcome 5 Incomplete evidence presented – additional training time may be required. The panel will award this outcome when the evidence to determine the rate of competence progression is incomplete or missing. They will prescribe a period of time, usually 10 working days, during which the evidence must be presented by the trainee. On consideration of this new evidence a definitive outcome will be recorded.

Outcome 6 Gained all required competences; will be recommended as having completed the training programme

Outcome 7 A range of outcomes for fixed term trainees

Outcome 8 Out of programme

Trainees should be aware that they have the right of appeal against outcomes 2, 3 & 4

SYLLABUS

Syllabus standards

Standards for depth of knowledge during early years' surgical training

In the early years of training, the appropriate depth and level of knowledge required can be found in exemplar texts tabulated below. It is expected that trainees will gain knowledge from these or similar sources in the context of surgical practice defined in the core surgical curriculum. The curriculum requires a professional approach from surgical trainees who will be expected to have a deep understanding of the subjects, to the minimum standard laid out below. It is expected that trainees will read beyond the texts below and will be able to make critical use, where appropriate of original literature and peer scrutinised review articles in the related scientific and clinical literature such that they can aspire to an excellent standard in surgical practice. The texts are not recommended as the sole source within their subject matter and there are alternative textbooks and web information that may better suit an individual's learning needs. The numbers act as a key to knowledge sections of the various module of the syllabus. Some texts are more detailed than others and the more detailed works may be more appropriate to the ST3 preparation modules.

Common core

Topic	**Possible textbooks or other educational sources**
Anatomy	Chummy S. Sinnatamby (2011) Last's anatomy: regional and applied, 12th edition. Edinburgh: Churchill Livingstone ❶ Frank H. Netter (2014) Atlas of human anatomy, 6th edition. Philadelphia: Saunders Elsevier ❷
Physiology	Kim E Barrett (2016) Ganong's review of medical physiology, 25th edition. New York: Lange McGraw Hill ❸
Pathology	Vinay Kumar, Abul K. Abbas & Jon C. Aster (2012) Robbins basic pathology, 9th edition. Philadelphia: Saunders Elsevier ❹
Pharmacology, microbiology, surgical science, care of the dying and organ transplantation	O. James Garden & Rowan W Parks (2012) Principles and practice of surgery, 6th edition. Edinburgh: Churchill Livingstone ❺ Norman S. Williams, Christopher J.K. Bulstrode & P. Ronan O'Connell (2013) Bailey and Love's short practice of surgery 26th edition. Boca Raton: CRC Press ❻
Peri-operative care and critical care	ATLS course ❼ CCrISP course ❽
Surgical care of children	John M. Hutson, Michael O'Brien, Spencer W. Beasley, Warwick J. Teague & Sebastian K. King (2015) Jones' Clinical Paediatric Surgery, 7th edition. Hoboken: Wiley-Blackwell ❾
T&O	Timothy O White, Sam P Mackenzie & Alasdair Gray (2015) McRae's Orthopaedic trauma & emergency fracture management, 3rd edition. Elsevier ❿
Neurosurgery	Kenneth W Lindsay, Ian Bone & Geraint Fuller (2010) Neurology and neurosurgery illustrated, 5th edition. Churchill Livingstone ⓫
Professionalism	Good Medical Practice, GMC 2013 ⓬ Promoting Excellence: Standards for Medical Education and Training, GMC 2015 ⓭ Good practice in research and Consent to research, GMC 2010 ⓮ Leadership and management for all doctors, GMC 2012 ⓯

Core Specialty Modules

Specialty	Topic	Possible textbooks or other educational sources
Oral & Maxillofacial Surgery	Trauma and emergency conditions Elective OMFS	Cascarini L, Schilling C, Gurney B and Brennan P (2011) Oxford Handbook of Oral & Maxillofacial Surgery, OUP 16

ST3 preparation modules

Specialty	Topic	Possible textbooks or other educational sources
Cardiothoracic surgery		Chikwe J, Beddow E, Glenville B (2006) Cardiothoracic Surgery; Oxford University Press 17
Otolaryngology	Head and Neck Otology Rhinology Paediatric Otolaryngology	Logan Turner's Diseases of the Nose, Throat and Ear: Head & Neck Surgery, 11th edition. S. Musheer Hussain ed 2015, CRC press. 18 Warner G, Burgess A, Patel S, Martinez-Devesa P & Corbridge R (2009) Otolaryngology and Head & Neck Surgery (Oxford Specialist Handbooks in Surgery). Oxford University Press. 19
Plastic Surgery	Hand Trauma Burns Wound management Elective plastic surgery	Thorne CH (2013) Grabb and Smith's Plastic Surgery 7th Ed. Lippincott, Wiliams & Wilkins 20 McGregor AD & McGregor IA (2000) Fundamental Techniques of Plastic Surgery and Their Surgical Applications 10th Ed. Churchill Livingstone 21
Trauma & Orthopaedics	Trauma Elective Orthopaedics	Solomon L, Warwick D and Nayagam S (2010) Apley's System of Orthopaedics and Fractures 9th ed. CRC Press 22
Urology	Emergency Urology Elective Urology	Urology: Lecture Notes (6th edition) Blandy J & Kaisary A. Wiley Blackwell, 2009 23

In addition to these standard texts, sample MRCS MCQ examination questions are also available[18] which will demonstrate the level of knowledge required to be able to successfully pass the MRCS examination.

[18] http://www.intercollegiatemrcsexams.org.uk/new/pdf/part_a_sample_mcqs.pdf

Description of the levels expected for clinical and technical skills

The practical application of knowledge is evidenced through clinical and technical skills. Each topic within a stage has a competence level ascribed to it in the areas of clinical and technical skills ranging from 1 to 4:

1. Has observed. At this level the trainee:

- Has adequate knowledge of the steps through direct observation
- Demonstrates that he/she can handle instruments relevant to the procedure appropriately and safely
- Can perform some parts of the procedure with reasonable fluency

2. Can do with assistance. At this level the trainee:

- Knows all the steps - and the reasons that lie behind the methodology
- Can carry out a straightforward procedure fluently from start to finish
- Knows and demonstrates when to call for assistance/advice from the supervisor (knows personal limitations)

3. Can do whole but may need assistance. At this level the trainee:

- Can adapt to well- known variations in the procedure encountered, without direct input from the trainer
- Recognises and makes a correct assessment of common problems that are encountered
- Is able to deal with most of the common problems
- Knows and demonstrates when he/she needs help
- Requires advice rather than help that requires the trainer to scrub

4. Competent to do without assistance, including complications. At this level the trainee:

- With regard to the common clinical situations in the specialty, can deal with straightforward and difficult cases to a satisfactory level and without the requirement for external input
- Is at the level at which one would expect a UK consultant surgeon to function
- Is capable of supervising trainees

These explicit standards form the basis for:

- Specifying the syllabus content
- Organising workplace (on-the-job) training in terms of appropriate case mix and case load
- Providing the basis for identifying relevant teaching and learning opportunities that are needed to support trainees' development at each particular stage of progress
- Informing competence-based assessment to provide evidence of what trainees know and can do

Levels of supervision

Trainees are required to keep a surgical logbook, using eLogbook, to record their acquisition of procedural experience. Trainees should ensure that they record all cases, those in undertaken in an operating theatre as well as those performed in out-patient clinics, wards, critical care units, emergency departments and procedural suites. The following descriptors of the level of supervision received should be used:

Assisting (**A**):

- The trainer completes the procedure from start to finish

- The trainee is scrubbed throughout but their role is purely to assist the trainer, who performs all of the key components of the procedure
- The trainee should be sufficiently engaged to learn about the procedure

Supervised - trainer scrubbed (**S-TS**):

- The trainee performs components of the procedure (as defined in the relevant PBA) with the trainer scrubbed. In core surgical training, completing the access component or closing the wound under supervision represent a useful training episode and should be distinguished from assisting.
- The trainee should record the component of the procedure for which they were the principle operator in the free text element of the eLogbook entry

Supervised - trainer unscrubbed (**S-TU**):

- The trainee completes the procedure from start to finish
- The trainer is unscrubbed and is either in the operating theatre throughout or in the operating theatre suite and regularly enters the operating theatre during the procedure, being present for >70% of the duration of the procedure

Performed (**P**):

- The trainee completes the procedure from start to finish
- The trainer is either present for <70% of the duration of the procedure or is not in the operating theatre. The supervising consultant may be scrubbed in the adjacent operating theatre or elsewhere in the hospital
- This level of supervision should be unusual in core surgical training

Training more junior trainee (**T**):

- The trainee uses the case to train a junior trainee
- This level of supervision should be unusual in core surgical training

Observed (**O**):

- The trainee is unscrubbed and simply observes the procedure

Modules

The common content module is to be completed by all core surgical trainees, for most, in their first year of training. The core specialty modules in eleven specialties (including intensive care medicine) should be included in the learning agreement of all trainees assigned to posts in those specialties with at least 3 to be completed by the majority of trainees over the course of their core surgical training programme. There are 9 ST3 preparation modules (excluding neurosurgery in which a route from CST to ST3 does not exist). Each trainee will complete only one of these in their chosen specialty, largely during their second year of training. The professional behaviour and leadership skills module, required of all surgical trainees at all stages in training, is scheduled for major revision in light of the GMC/AoMRC work "developing a framework for generic professional capabilities". Completion of this curriculum has necessitated retaining the existing professional/leadership skills module but it should be noted that on completion of the GMC/AoMRC work cited above, an early revision is likely to be required.

Common Content Module

	Basic sciences	SS	Assessment	GMP
Objective	To acquire and demonstrate a knowledge of the basic science which underpins the practice of surgery			
Knowledge	*Applied anatomy*: Development and embryology • Gross and microscopic anatomy of the organs and other structures • Surface anatomy • Imaging anatomy This will include anatomy of thorax, abdomen, pelvis, perineum, limbs, spine, head and neck. *Physiology*: General physiological principles including: • Thermoregulation • Metabolic, ionic and acid/base homeostasis • Cardiorespiratory homeostasis • Haemostasis • Acid base balance This will include the physiology of specific organ systems relevant to surgical care including the cardiovascular, respiratory, gastrointestinal, urinary, endocrine, musculoskeletal and neurological systems. *Pharmacology*: • The pharmacology of drugs used in surgical practice, both for treatment and prophylaxis, including analgesics, antibiotics, anticoagulants and local anaesthetics • The pharmacology and recommended modification in the perioperative period of the common agents used for the treatment of chronic intercurrent disease • The pharmacological principles of general anaesthesia and intensive care medicine • The pharmacological principles relevant to the treatment of malignancy • The pharmacological principles of immunosuppression *Pathology*: General pathological principles including: • Necrosis and apoptosis • Inflammation and immunity including transplant rejection • Repair, regeneration and healing	❶ ❷ ❸ ❺ ❻ ❹	MRCS	1

Approved 26 May 2017, for implementation August 2017

	• Thrombosis and embolism • Shock, systemic inflammatory response syndrome and multiple organ failure • Neoplasia including carcinogenesis, the biology of tumour growth, metastasis and the principles of grading and staging • Genetics The pathology of specific organ systems relevant to surgical care including cardiovascular pathology, respiratory pathology, gastrointestinal pathology, genitourinary disease, breast, exocrine and endocrine pathology, central and peripheral, neurological systems, skin, lymphoreticular and musculoskeletal systems. *Microbiology*: • Infection control including sources of infection, asepsis, disinfection and sterilisation • General pathology of bacterial and viral disease including mechanisms of injury and systemic sepsis • Soft tissue infections including cellulitis, abscesses, necrotising fasciitis and gangrene • Hospital acquired infection, antibiotic governance and bacterial resistance • Prevention of the transmission of blood born viral infection during surgery *Medical physics*: • Principles of diagnostic and interventional imaging including plain and contrast radiography, ultrasound, CT, MRI, PET and radionuclide imaging • Principles of diathermy, LASER, ultrasonic aspiration • Principles of radiotherapy *Medical statistics*: • Principles of screening • The null hypothesis and common tests used with parametric and non-parametric data	❺ ❻ ❺ ❻ ❺ ❻		

	The clinical method in surgical practice	SS	Assessment	GMP
Objective	To demonstrate the knowledge and clinical skill necessary to assess and investigate a patient presenting to a surgical team			
Knowledge	For each of the index conditions in appendix 2: • epidemiology • common presentations • expected findings on history and examination • natural history • important investigations and likely findings • management options and published guidelines • prognosis	❺❻	MRCS/CBD	1
Clinical Skills	Take a tailored history and perform a relevant examination in an outpatient clinic Detect the need for and initiate resuscitation in an unwell patient Take a tailored history and perform a relevant examination for an acutely unwell patient Construct and investigate a differential diagnosis Facilitate a patient centred discussion of treatment options and agree on a management plan	3 3 3 2 2	Mandatory CEX Mandatory CEX and CBD, CEX, MSF and CSR	1,3,4
Reference to other relevant syllabus items	Critical care Professional/leadership skills: good clinical care Surgical care of the paediatric patient			

	Peri-operative care	SS	Assessment	GMP
Objective	To assess and manage preoperative risk and prepare a patient for theatre, to conduct safe surgery in the operating theatre environment and to provide medical care for the patient in the post-operative period.	❽		
Pre-operative care				
Knowledge	• Risk factors for surgery and scoring systems including ASA and VTE risk • Antibiotic and VTE prophylaxis guidelines • Principles of ambulatory day surgery including selection and discharge criteria • Ethical principles of, and legislative framework for, capacity and consent • Nutritional assessment methods and feeding options	❺ ❻	MRCS/CBD	1,4
Clinical skills	• The safe prescribing of pharmacological agents used for the treatment of chronic intercurrent disease, modified appropriately to the peri-operative period • The safe prescribing of measures for antibiotic and VTE prophylaxis • Assessing patient capacity • Obtaining consent for surgery • Communication with anaesthetic and scrub teams in advance • Planning perioperative nutrition in advance in partnership with the nutrition team • Engaging with multidisciplinary team discussions including those with oncology and interventional radiology	3 4 2 2 3 2 2	PBA	1,2,3,4
Intra-operative care				
Knowledge	• The patient safety movement and the evidence behind the WHO check list • The principles of positioning and pressure area care • Radiation protection legislation • Guidelines for tourniquet use • Safety requirements for use of sharps, LASER and diathermy • What to do when something goes wrong **SR** • Anaesthetic monitoring techniques	❺ ❻	MRCS/PBA /CBD	1,2
Clinical skills	• Maintenance of communication with theatre team throughout procedure • Crisis management **SR**	4 1	PBA	1,3

Technical skills and procedures	• Safe positioning of the patient on the operating table • Safe intraoperative use of sharps and diathermy • Completion of team briefing • Completion of WHO check list (time out and sign out)	2 3 1 3	PBA/CSR Mandatory DOPS	1,2,3
Post-operative care				

Knowledge	• Delirium
	  ○ Epidemiology and prognosis of delirium
	  ○ Causes and clinical features of delirium
	  ○ The impact of delirium on patient, family and carers
	• Spectrum of post-operative complications
	• Guidelines for indications, prescription and management of complications of the transfusion of blood products
		❺❻	MRCS/CBD	1,4

Clinical skills	• Assessment of the unwell postoperative patient
	• Writing an operation note with clear post-operative instructions
	• Delivery of effective analgesia
	• Diagnosis and treatment of VTE
	• Post-operative monitoring and optimisation of fluid & electrolyte balance
	• Diagnosis and treatment of post-operative infection and sepsis
	• Diagnosis and treatment of transfusion reactions
	• Delirium
	  ○ Assessment of cognitive impairment seeking to differentiate dementia from delirium, with the knowledge that delirium is common in people with dementia
	  ○ Management of patients with delirium including addressing triggers and using non-pharmacological and pharmacological methods where appropriate
	  ○ Explanation of delirium to patients and advocates
		3
		3
		3
		3
		3
		2
		2
		2
			CEX/CBD/ PBA	1,4

	Basic surgical skills	SS	Assessment	GMP
Objective	To acquire and develop throughout the programme those generic technical skills common to all or many areas of surgical practice.			
Knowledge	Surgical wounds: • Classification of surgical wounds • Principles of wound management • Principles underlying incision placement including cosmesis and Langer's lines, vascularity and function • Principles underlying wound closure including suture method, needle types and the physical and biological characteristics of suture material The range, nomenclature and functional design of surgical instruments	5 6	MRCS/CBD /DOPS/PBA	1
Technical skills and procedures	Effective hand washing, gloving and gowning	4	Mandatory DOPS	1,2
	Accurate, effective and safe administration of local anaesthetic	3	Mandatory DOPS	
	Preparation and maintenance of an aseptic field	3	Mandatory DOPS	
	Incision of skin and subcutaneous tissue: **SR** • Ability to use scalpel, cutting diathermy and scissors • Control of superficial bleeding using diathermy and ligation	3	Mandatory DOPS	
	Closure of skin and subcutaneous tissue: **SR** • Accurate and tension free apposition of wound edges • Knot tying by hand and instrument	3	Mandatory DOPS	
	Selection and placement of tissue retractors	2		
	Insertion, fixation and removal of drains	2		
	Appropriate selection and use of instruments to handle tissue with minimal trauma	2		
	Taking biopsies, safe labelling and completion of request forms	2		
	Anticipation of needs of surgeon when assisting	2	and procedure specific DOPS / PBA / logbook	
	Co-ordination of camera and instrument from a 2 dimensional display during surgical endoscopy **SR**	2		

	Critical care	SS	Assessment	GMP
Objective	To demonstrate the knowledge and clinical and technical skills necessary to contribute to the management of critically unwell patients suffering from traumatic injuries or sepsis.			
Trauma management				
Knowledge	The systematic, prioritised method of trauma management set out by the American College of Surgeons, Committee on Trauma Scoring systems for assessment of global injury severity including ISS	❼	ATLS/MRCS /CBD	1
Clinical skills	Resuscitation and early management of the patient who has sustained thoracic, head, spinal, abdominal and/or limb injury according to ATLS® and APLS guidelines **SR**	3	CEX/ ATLS/CSR	1,3
Technical skills and procedures	Chest drain insertion **SR**	2	DOPS / logbook	1
Sepsis management				
Knowledge	A systematic, prioritised method of managing the septic patient Recommendations of the surviving sepsis campaign including the "Sepsis 6"	❽	MRCS/CBD	1
Clinical skills	Resuscitation and early management of the septic patient **D**	3	CEX/CSR	1
Technical skills and procedures	Surgical drainage of pus	2	DOPS/PBA /logbook	1
Intensive care medicine				
Knowledge	Classification of levels of critical care Principles of organ support including: • Invasive monitoring of circulation and ionotropic support • Mechanical ventilation and tracheostomy • Haemofiltration and haemodialysis	❺ ❻	MRCS/CBD	1
Clinical skills	Assessment of a patient receiving critical care Surgical contribution, in discussion with the critical care team, to the management plan of a patient receiving critical care	2 1	CEX	1,3

	Surgical care of the paediatric patient	SS	Assessment	GMP
Objective	To assess and manage children with surgical problems, understanding the similarities and differences from adult surgical patients, within the appropriate legal and safeguarding frameworks.			
Knowledge	An awareness of the normal physiological parameters at different ages Principles of vascular access in children Working knowledge of trust and Local Safeguarding Children Boards (LSCBs) and Child Protection Procedures Child protection law and the issues of consent in childhood Working knowledge of types and categories of child maltreatment	5 6 7	MRCS / CBD	1,2
Clinical Skills	Recognise limitations of own knowledge and experience and seek early advice from dedicated paediatric teams	4	CEX	1,2,3
	History and examination of paediatric surgical patient	2		
	Recognition of the unwell child **(D)**	3		
	Assessment of respiratory and cardiovascular status in a child	2		
	Obtaining consent for operative treatment in a paediatric patient	1		

	Management of the dying patient	SS	Assessment	GMP
Objective	To demonstrate the knowledge and clinical skills necessary to manage the transition from life to death including palliation of symptoms, certification of death and the discussion of resuscitation status and organ donation.			
Knowledge	Awareness of the public debate around resuscitation and palliative care, and organ donation Classification of organ donors The role of the coroner and the certification of death	❺❻	MRCS/CBD	1
Clinical Skills	Assessment and control of distress in the dying patient in collaboration with a palliative care team The diagnosis of death following irreversible cessation of brain-stem function Discussion of best interest including resuscitation status and limits of care with patient advocate Discussion of organ donation with family in collaboration with transplant coordinators	3 1 2 **2**	CEX	1,3,4

	Health promotion	SS	Assessment	GMP
Objective	This syllabus module aims to enable all surgical trainees to develop the competencies necessary to support patients in caring for themselves; to empower them to improve and maintain their own health.			
General aspects				
Knowledge	Damaging health and social issues such as excessive alcohol consumption, obesity, smoking and illicit drugs and the harmful effects they have on health The connection between mental health and physical health The importance of health education for promoting self-care for patients The GMC's requirement that doctors protect patients and colleagues from any risk posed by their own health		CBD	1,2,4
Clinical Skills	Modification of explanations to match the intellectual, social and cultural background of individual patients Patient centred care Identification and utilisation of opportunities to promote health including positive role modelling	3 3 4	CEX	3,4
Reference to other relevant syllabus items	• Nutrition (Module 5, Perioperative Care) • Drugs and alcohol (Module 1, Pharmacology) • Screening (Module 1, Pathology) • Child protection (Module 7, Surgical Care of the Paediatric Patient)			
Obesity				
Knowledge	Classification of excess body mass The health risks posed by obesity including an increased incidence of coronary heart disease, type 2 diabetes, hypertension, stroke, and some major cancers Social, psychological and environmental factors that underpin obesity Physiological and metabolic effects of obesity on the surgical patient Available treatments for obesity including diet, exercise, medication and surgery		MRCS/CBD	1
Clinical Skills	The ability to treat patients who are obese in a supportive and sensitive manner Assess and explain the higher risks for obese individuals undergoing surgery	4 3	CEX	1,3,4

	Management of cardiovascular, respiratory and metabolic complications in patients with obesity undergoing surgery Provide advice and guidance about weight loss to overweight and obese patients within the context of a multidisciplinary team	2 2		
Dementia				
Knowledge	Clinical features of dementia and the distinction between it and delirium The impact of dementia on patient, family and carers Principles and key provisions of the relevant legislation regarding the safeguarding of vulnerable adults across the UK, such as the Mental Capacity Act 2005 and the Adult Support and Protection (Scotland) Act 2007		MRCS/CBD	1
Clinical Skills	Recognises cognitive impairment and appropriately refers Management of surgical patients in the context of their dementia A range of techniques and strategies to communicate effectively with people with dementia and their carers/families Assessment of capacity, involvement of advocates and documentation of consent and best interests	3 2 3 3	CEX	1,3,4
Exercise and physical fitness				
Knowledge	Physical inactivity as an independent risk factor for ill health and obesity Relationship between physical exercise programmes and healthy eating and smoking cessation programmes Government behaviour change programmes such as 'Let's Get Moving' and 'Shift into Sports'		MRCS/CBD	1
Clinical Skills	Utilisation of all patient interactions as opportunities for health and fitness promotion with particular reference to the prevention and management of long term chronic conditions such as coronary heart disease, diabetes, hypertension, obesity, cancer, osteoporosis, peripheral vascular disease and depression and the promotion of health and well being Modification of advice on physical exercise to the specific requirements of individual patients	4 2	CEX	1

Core Specialty Modules

	Cardiothoracic Surgery	SS	Assessment	GMP
Objective	To acquire experience of the management of cardiothoracic surgical patients in critical care and ward environments and participate under supervision in their operative management.			
Management of the cardiothoracic surgical patient				
Knowledge	Principles of intra-aortic balloon pumps	5 6	CBD	
Clinical skills	Assessment and early management of the post-operative cardiothoracic surgical patient including the use of inotropes and vasoactive drugs **D** Echocardiography including TOE Assessment and planning the investigation of new and follow-up patients in cardiothoracic surgical outpatient clinics	2 1 2	CEX	1,3
Technical skills and procedures	Use of defibrillator **SR**	3	CSR	1
Operative cardiothoracic surgery				
Knowledge	Specific knowledge relating to the principles of cardiopulmonary bypass and myocardial management and their consequences. Includes an understanding of the relevant equipment and technology	5 6	CEX	1
Technical skills and procedures	Sternotomy **D** Thoracotomy/thoracoscopy **D** Harvesting long saphenous vein **D**	1 1 2	PBA / DOPS / logbook / CSR	1

	General Surgery	SS	Assessment	GMP
Objective	To develop the skills required to contribute to the management of general surgical patients in elective and emergency settings and participate under supervision in their operative management.			
Management of the elective general surgical patient				
Clinical skills	Assessment and planning the investigation of new and follow-up patients in general surgical outpatient clinics	2	CEX	1,3
Technical skills and procedures	Outpatient treatment of haemorrhoids	2	PBA / DOPS / logbook / CSR	1
Management of the acutely unwell general surgical patient				
Clinical skills	Contribution to the trauma team as general surgical representative	2	CEX	1,3

	Interpretation of abdominal CT scans Assessment and early management of acutely unwell patients presenting with an acute abdomen	1 3		
Technical skills and procedures	Rigid sigmoidoscopy	2	PBA / DOPS / logbook / CSR	1
Operative general surgery				
Technical skills and procedures	Excision biopsy of skin lesion Repair of primary abdominal wall hernia **D** Open and close midline laparotomy incision **D** Placement of laparoscopic ports **D** Appendicectomy **D** Superficial abscess drainage	2 1 1 1 1 2	PBA / DOPS / logbook / CSR	1

	Intensive Care Medicine	**SS**	**Assessment**	**GMP**
Objective	To develop the skills required to contribute to the management of surgical patients in the critical care environment.			
Clinical skills	Assessment of a patient receiving critical care Daily management planning for a patient receiving critical care Discharge planning Contribution to critical care outreach service Assessment of patients in the critical care follow up clinic	3 2 2 2 2	CEX	1,2,3
Technical skills and procedures	Insertion of central venous catheter under ultrasound guidance Insertion of arterial line Percutaneous tracheostomy	2 2 1	DOPS / logbook / CSR	1

	Neurosurgery	**SS**	**Assessment**	**GMP**
Objective	To acquire experience of the management of neurosurgical patients in critical care and ward environments and participate under supervision in their operative management.			
Knowledge	Physiology of intracranial pressure, cerebrospinal fluid and intracranial blood flow Principles of management of subarachnoid haemorrhage	⓫	CBD	1
Clinical skills	Interpretation of cranial CT scans	1 2	CEX	1,3

	Contribution to the trauma team as neurosurgical representative Assessment and planning the investigation of new and follow-up patients in neurosurgical outpatient clinics Assessment and early management of acutely unwell neurosurgical patient	2 2		
Technical skills and procedures	Lumbar puncture Sampling of CSF from and administration of intrathecal antibiotics through, lumbar drains and external ventricular drains Insertion of ICP monitor **D** Insertion of external ventricular drain **D** Burr hole drainage of chronic subdural haematoma **D** Dorsal exposure of spine **D** Opening and closing craniotomy **D**	3 3 2 2 2 1 1	PBA/DOPS /logbook /CSR	1

	Oral & Maxillofacial Surgery	**SS**	**Assessment**	**GMP**
Objective	To develop the knowledge and skills required to contribute to the management of oral & maxillofacial surgical patients in elective and emergency settings and participate under supervision in their operative management.			
Trauma and emergency conditions				
Knowledge	Patterns and management principles of facial fracture Principles of the management of dento-alveolar trauma Principles of the surgical management of dento-facial sepsis	5 6 7 16	CBD	1
Clinical skills	Assessment and immediate management of dento-alveolar trauma Interpretation of craniofacial radiological investigations	2 1	CEX	1
Technical skills and procedures	Closure of simple facial lacerations including full thickness lip and eyelid lacerations Surgical management of simple mandibular and zygomatic fracture Application of intermaxillary fixation Surgical airway care including changing tracheostomy	2 1 2 3	PBA / DOPS / logbook / CSR	1
Elective OMFS				
Knowledge	Anatomy of teeth and supporting structures Principles of the management of odontogenic cysts and impacted teeth	1 5 6 16	CBD	1

	Principles of the management of premalignant and malignant conditions affecting the head and neck			
Clinical skills	Assessment of patients presenting with dento-alveolar and intra oral mucosal signs and symptoms Assessment of skin lesions of the head and neck	2 2	CEX	1,3
Technical skills and procedures	Dental extraction Surgical removal of retained roots and impacted teeth Biopsy of intraoral lesions Split skin graft Full thickness skin graft Excision and closure of simple skin lesions	2 1 2 1 1 2	PBA / DOPS / logbook / CSR	1

16 Cascarini L, Schilling C, Gurney B and Brennan P (2011) Oxford Handbook of Oral & Maxillofacial Surgery, OUP

	Otolaryngology	**SS**	**Assessment**	**GMP**
Objective	To develop the skills required to contribute to the management of otolaryngological patients presenting in elective and emergency settings and participate under supervision in their operative management			
Clinical assessment and emergency management				
Clinical skills	Otoscopy Nasal examination with speculum Flexible nasendoscopy **D** Assessment and planning the investigation of patients presenting with a neck lump Recognition of the clinical signs of airway obstruction and respiratory distress in adults and children Interpretation of audiological investigations Interpretation of head and neck CT and MRI Initial assessment and management of patients presenting with: • epistaxis • acute tonsillitis and quinsies • hearing loss • facial palsy • facial trauma • foreign body • dysphagia	3 3 2 2 3 1 1 2	CEX	1,3
Technical skills and procedures	Packing of nose Removal of nasal packing Cautery of nasal mucosa Otomicroscopy and removal of foreign body **SR**	2 3 2 2	PBA / DOPS / logbook / CSR	1

	Drainage of quinsy	1		
Operative otolaryngology				
Clinical skills	Diagnosis and medical management of post-operative haemorrhage following adenotonsillar surgery	3	CEX	1
Technical skills and procedures	Insertion of grommets	2	PBA / DOPS / logbook / CSR	1
	Reduction of nasal fracture	2		
	Adult tonsillectomy	2		
	Paediatric adenotonsillectomy	1		
	Excision of neck lumps	2		
	Excision of skin lesions	2		

	Paediatric Surgery	**SS**	**Assessment**	**GMP**
Objective	To develop the knowledge and skills required to contribute to the management of paediatric surgical patients presenting in elective and emergency settings and participate under supervision in their operative management.			
Knowledge	The embryology of common congenital malformations	❶	CBD/level 3 safeguarding	1,2
	Detailed understanding of child protection legislation and working practice			
Clinical skills	Paediatric resuscitation	2	PLS/CEX	1,3
	History and examination of neonatal surgical patient	2		
	Communication with children, their parents and carers	3		
	Assessment and planning the investigation of new and follow-up patients in paediatric surgical outpatient clinics	2		
	Assessment and early management of acutely unwell paediatric surgical patients	2		
Technical skills and procedures	Circumcision	1	PBA / DOPS / logbook / CSR	1
	Non-neonatal inguinal hernia repair	1		
	Ligation of patent processus vaginalis	1		
	Umbilical hernia repair	1		
	Appendicectomy	1		
	I & D of abscess	1		
	Exploration of scrotum (testicular torsion)	1		

	Plastic Surgery	**SS**	**Assessment**	**GMP**
Objective	To develop the skills required to contribute to the management of plastic surgery patients presenting in			

	elective and emergency settings and participate under supervision in their operative management.			
Clinical skills	Assessment of burns area & severity Assessment of the injured hand Resuscitation of a patient suffering from thermal injury Assessment and planning the investigation of new and follow-up patients in plastic surgery outpatient clinics	3 2 2 2	CEX	1,3
Technical skills and procedures	Split skin graft Full thickness skin graft Repair of divided extensor tendon Excision and closure of simple skin lesions Debridement of contaminated or infected wound Repair of full thickness lip and eyelid lacerations	1 1 1 2 2 1	PBA / DOPS / logbook / CSR	1

	Trauma & Orthopaedic Surgery	**SS**	**Assessment**	**GMP**
Objective	To develop the knowledge and skills required to contribute to the management of patients with significant musculoskeletal trauma and to gain exposure to elective orthopaedic surgery.			
Trauma management				
Knowledge	Common systems employed for the identification of important fracture subtypes to a level sufficient to allow contribution to discussions about their management at trauma meetings	⓾	CBD	1
Clinical skills	Contribution to the trauma team as orthopaedic representative Interpretation of plain radiographs of common fractures Management of patients in the fracture clinic Assessment and early management of acutely unwell patients suffering the complications of musculoskeletal trauma	2 3 2 3	CEX	1,3
Technical skills and procedures	Application of cast and common splints Manipulation under anaesthesia Open reduction and internal fixation of ankle fracture **D** Operative management of proximal femoral fracture **D**	2 1 1 1	PBA / DOPS / logbook / CSR	1
Elective orthopaedics				
Clinical skills	Assessment and planning the investigation of new and follow-up patients in elective orthopaedic surgery outpatient clinics	2 2	CEX	1,3

	Assessment and early management of acutely unwell patients suffering the complications of elective orthopaedic surgery			
Technical skills and procedures	Arthroscopy **D** Arthroplasty **D**	1 1	PBA / DOPS / logbook / CSR	1

	Urology	**SS**	**Assessment**	**GMP**
Objective	To develop the skills required to contribute to the management of urology patients presenting in elective and emergency settings and participate under supervision in their operative management.			
Clinical skills	Assessment and planning the investigation of new and follow-up patients in urology outpatient clinics Assessment and early management of patients suffering the complications of urological surgery Assessment and early management of patients with acute testicular pain, urinary retention, ureteric colic and obstructive uropathy	2 2 2	CEX	1,3
Technical skills and procedures	Suprapubic catheterisation Flexible cystoscopy Rigid cystoscopy and: • Biopsy and diathermy • Retrograde ureterogram • Insertion retrograde ureteric stent Exploration of scrotum Excision of epididymal cyst Circumcision	3 3 2 2 2 2	PBA / DOPS / logbook / CSR	1

	Vascular Surgery	**SS**	**Assessment**	**GMP**
Objective	To develop the skills required to contribute to the management of vascular surgery patients presenting in elective and emergency settings and participate under supervision in their operative management.			
Clinical skills	Assessment and planning the investigation of new and follow-up patients in vascular surgery outpatient clinics Interpretation of CT, MR and digital subtraction angiography Clinical assessment of limb arterial supply and venous drainage Measurement of ABPI and lower limb venous circulation using hand help Doppler ultrasound probe and tourniquet	2 1 2 2	CEX	1,3

Technical skills and procedures	Primary varicose vein surgery	2	PBA / DOPS / logbook / CSR	1
	Exposure & control of major vessels	2		
	Vascular suturing	1		
	Open and close midline laparotomy incision	1		
	Angiography	1		
	Major lower limb amputation	1		

ST3 preparation modules

	Cardiothoracic surgery	SS	Assessment	GMP
In order to meet the job specifications of an ST3 trainee, an early years' trainee must take a clear role in the cardiothoracic team, managing cardiac intensive care and ward based patients under supervision, including the management of acute admissions. They will need to be able to take part in an outpatient clinic and see new and follow-up patients themselves with the consultant available for advice. Trainees must attend MDT and other departmental meetings and ward rounds, and contribute to the surgical care of patients in the operating theatre. They should recognise and initiate the management of common complications and emergencies, over and above those already laid out in the common content and core specialty modules. This means spending a minimum of 6 months in cardiothoracic surgery in a service which gives trainees access to the appropriate learning opportunities, within a 2-year core surgical training programme.				
Objective	To acquire sufficient knowledge and skill of the management of patients under the care of a Cardiothoracic team in both elective and emergency environments and in the operating theatre to be ready to enter higher surgical training in Cardiothoracic surgery			
Knowledge	To understand the science, technology and practical applications of cardiopulmonary bypass, myocardial protection and circulatory support An in depth working knowledge of the full range of Cardiothoracic conditions	**17**	CBD	
Clinical skills	Management of a patient after cardiac or thoracic surgery on the critical care, high dependency and post-operative wards	3	CEX	
Technical skills and procedures	Use of defibrillator Arterial cannulation Central venous cannulation Saphenous vein harvest Median sternotomy Chest aspiration Chest drain insertion and management Thoracotomy Thoracoscopy port placement	4 3 2 3 2 3 3 2 3	PBA / DOPS / logbook / CSR	

17 Chikwe J, Beddow E, Glenville B (2006) Cardiothoracic Surgery; Oxford University Press

	General Surgery	SS	Assessment	GMP
In order to meet the job specifications of an ST3 trainee, an early years' trainee must take a clear role in the general surgery team, managing intensive care and ward based patients under supervision, including the management of acute admissions. They will need to be able to take part in an outpatient clinic and see new and follow-up patients themselves with the consultant available for advice. Trainees must attend MDT and other departmental meetings and ward rounds, and contribute to the surgical care of patients in the operating theatre. They should recognise and initiate the management of common complications and emergencies, over and above those already laid out in the common content and core specialty modules. This means spending a minimum of 12 months in general surgery in a service which gives trainees access to the appropriate learning opportunities, within a 2-year core surgical training programme.				
Objective	To acquire sufficient knowledge and skill of the management of patients under the care of General Surgical teams in both elective and emergency environments and in the operating theatre to be ready to enter higher surgical training in General Surgery			
Knowledge	An in depth working knowledge of the full range of General Surgical conditions	❺	CBD	
Clinical skills	To be able to diagnose and manage a range of elective conditions presenting to general surgeons including appropriate investigation. This should include primary abdominal wall hernias, lesions of the cutaneous and subcutaneous tissues.	3	CEX/ATLS	
	To be able to assess and initiate management of patients presenting with common conditions electively to subspecialty clinics. This should include gall stones, upper and lower gastrointestinal tract cancers.	3		
	To be able to assess and provide the early care of a patient presenting with acute abdominal symptoms and signs. This should include localised and generalised peritonitis (Acute cholecystitis, acute diverticulitis, acute pancreatitis, visceral perforation, acute appendicitis and acute gynaecological conditions), obstruction (small and large bowel-obstructed hernias, adhesions, colonic carcinoma) and localised abdominal pain (biliary colic, non-specific abdominal pain).	3		
	To be able to assess and provide the early care of a patient with suspected abdominal trauma. This should include primary and secondary survey.	3		
	To be able to recognise assess and provide the early care of a patient presenting with ruptured abdominal aortic aneurysm and acute arterial insufficiency.	3		
	To be able to provide the early care of a patients presenting with acute urological conditions including acute urinary retention, ureteric colic, urinary tract infection and acute testicular pain.	3		
	To be able to diagnose and manage with appropriate investigations superficial and common acute septic conditions including subcutaneous abscess, cellulitis,	3		

	perianal and pilonidal abscess and breast abscess. To be aware of gas gangrene and necrotising fasciitis.			
Technical skills and procedures	Chest drain insertion **(SR)** Needle biopsy including Fine needle aspiration **(SR)** Rigid sigmoidoscopy **(SR)** Excision biopsy of benign skin or subcutaneous lesions **(SR)** Outpatient treatment of haemorrhoids **(SR)** Induction of pneumoperitoneum for laparoscopy with port placement **(SR)** Open and close midline laparotomy incision **(SR)** Appendicectomy **(SR)** Inguinal hernia repair **(SR)** Primary abdominal wall hernia repair **(SR)**	3 3 3 4 2 2 2 3 2 2	PBA / DOPS / logbook / CSR	

	Oral & Maxillofacial Surgery	**SS**	**Assessment**	**GMP**
A trainee can meet the personal specification for appointment to higher surgical training at ST3 level in oral & maxillofacial surgery after just 12 months of core surgical training. A dually qualified core surgical trainee cannot complete core and enter ST3 training in any other specialty in less than 24 months however. The core specialty module for OMFS should be completed.				
Objective	To acquire sufficient knowledge and skill of the management of patients under the care of the OMFS team in both elective and emergency environments and in the operating theatre to be ready to enter higher surgical training in oral & maxillofacial surgery			

	Otolaryngology	**SS**	**Assessment**	**GMP**
In order to meet the job specification of an ST3 trainee, an early years' trainee must take a clear role in the Otolaryngology team, managing clinic and ward based patients under supervision, including the management of acute admissions. This means spending at least six months and preferably 12 months in Otolaryngology with appropriate special interest experience in a service, which gives trainees access to the appropriate learning opportunities. Experience in specialties complementary to Otolaryngology, such as OMFS, plastic surgery, paediatric surgery, neurosurgery, cardiothoracic surgery, ITU and upper GI surgery is also desirable.				
Objective	To acquire sufficient knowledge and skill of the management of patients under the care of the Otolaryngology team in both elective and emergency environments and in the operating theatre to be ready to enter higher surgical training in Otolaryngology			
General clinical skills				
Clinical skills	Take an appropriately focused clinical history Perform a full ENT examination	2 3	CEX	
Head and Neck				
Knowledge	Anatomy & embryology of the head and neck incl. oral cavity & dentition	18 19	CBD / MRCS(ENT)	

	Physiology of swallowing & speech Microbiology of head and neck The aetiology, presentation, differential diagnosis & management of: • infections of the head and neck • inflammatory disorders of the head and neck • neoplasms of the head and neck • trauma of the head and neck • neck lumps incl. salivary gland & thyroid disease • voice & swallowing disorders			
Clinical skills	Management of acute airway compromise including an awareness of the importance of a team approach **(D)** Demonstrate competence in the initial management of post tonsillectomy haemorrhage **(D)**	2 4	CEX	
Technical skills and procedures	Drainage peritonsillar abscess Flexible nasendoscopy **(SR)** Tonsillectomy Direct laryngoscopy and pharyngoscopy **(D)** Lymph node biopsy **(D)** Resection of skin lesions of H&N **(D)** Tracheostomy **(SR)**	4 4 2 2 2 2 1	PBA / DOPS / logbook / CSR	
Otology				
Knowledge	Anatomy & embryology of the ear Physiology of hearing & balance Aetiology, presentation, differential diagnosis & management of infections of: • infections of the ear • ear trauma including skull base trauma • hearing loss, tinnitus & vertigo • facial palsy	18 19	CBD / MRCS(ENT)	
Clinical skills	Balance testing Particle repositioning procedures Pure tone audiometry **(SR)** Tympanometry **(SR)**	4 2 2 1	CEX	
Technical skills and procedures	EUA ear and microsuction **(SR)** Removal of foreign bodies Myringotomy & Grommet **(SR)** Suturing of pinna laceration Drainage of pinna haematoma	4 4 2 2 2	PBA / DOPS / logbook / CSR	
Rhinology				
Knowledge	Anatomy & embryology of the nose & paranasal sinuses Microbiology of the nose & paranasal sinuses	18 19	CBD / MRCS(ENT)	

	Nasal physiology including olfaction Aetiology, presentation, differential diagnosis & management of: • epistaxis • infections of the nose & paranasal sinuses • inflammatory disease of the paranasal sinuses • neoplasms of the nose & paranasal sinuses • trauma to the nose & paranasal sinuses			
Clinical skills	Assessment & initial management of facial trauma incl. fractured nose Assessment & initial management of epistaxis Perform a structured visual assessment	3 4 3	CEX	
Technical skills and procedures	Rigid nasal endoscopy **(SR)** Nasal packing (anterior & posterior) **(SR)** Nasal cautery Manipulation of fractured nose Endoscopic nasal polypectomy	4 4 4 2 2	PBA / DOPS / logbook / CSR	
Paediatric otolaryngology While competencies listed in the other 3 domains of this module will be relevant to paediatric ENT, this domain contains competencies specific to paediatric conditions				
Knowledge	Differences in anatomy of the upper aerodigestive tract, nose and ear between children and adults How ENT disease may present differently in children Speech development Methods for age appropriate hearing assessment Aetiology, presentation, differential diagnosis & management of sleep disordered breathing and airway compromise in children How NAI may present to ENT surgeons & appropriate pathways for onward referral	**18** **19**	CBD / MRCS(ENT)	
Clinical skills	Take an appropriately focused clinical history in children Perform a full ENT examination in children Assessment & initial management of epistaxis in children Assessment & initial management of acute airway compromise in children including an awareness of a team approach to management **(SR)**	2 2 4 1	CEX	
Technical skills and procedures	Myringotomy & grommet insertion **(SR)** Paediatric (adeno)tonsillectomy Nasal cautery	2 2 4	PBA / DOPS / logbook / CSR	

18 Logan Turner's Diseases of the Nose, Throat and Ear: Head & Neck Surgery, 11th edition. S. Musheer Hussain ed 2015, CRC press.

19 Warner G, Burgess A, Patel S, Martinez-Devesa P & Corbridge R (2009) Otolaryngology and Head & Neck Surgery (Oxford Specialist Handbooks in Surgery). Oxford University Press.

	Paediatric Surgery	SS	Assessment	GMP
In order to meet the job specifications of an ST3 trainee, an early years' trainee must take a clear role in the paediatric surgical team managing clinic and ward based children and their parents and carers under supervision, including the management of acute paediatric surgical admissions. They will need to be able to take part in an outpatient clinic and see patients with their carers themselves with the consultant available for advice. This means spending 6-12 months in paediatric surgery in a service which gives trainees access to appropriate learning opportunities including exposure to paediatric intensive care as well as 6 months in general surgery.				
Objective	To acquire sufficient knowledge and skill of the management of patients managed by the paediatric surgery team in both elective and emergency environments and in the operating theatre to be ready to enter higher surgical training in paediatric surgery.			
Management of the elective paediatric surgical patient				
Knowledge	Common general surgical conditions of childhood	❾	CBD	
Clinical skills	Clinical assessment and organization of appropriate investigations for elective admissions and out-patients	3	CEX/CSR	
Technical skills and procedures	Intravenous cannulation of infants and children	3	PBA / DOPS / logbook / CSR	
Management of the emergency paediatric surgical patient including trauma				
Knowledge	General surgical conditions of childhood including: acute abdominal pain, intussusception, bilious vomiting, patterns of trauma including NAI	❾	CBD	
Clinical skills	Assessment and organization of appropriate investigations	3	CEX/CSR	
Technical skills and procedures	Intravenous cannulation of children and infants Urethral catheterization of children and infants Air enema reduction of Intussusception	3 3 1	PBA / DOPS / logbook / CSR	
Operative paediatric surgery				
Clinical skills	Taking consent for: inguinal hernia repair, circumcision, orchidopexy, ligation of PPV, umbilical hernia and appendicectomy	2	CEX / PBA	
Technical skills and procedures	Circumcision Inguinal hernia (not infant) Ligation of PPV Umbilical hernia repair Appendicectomy I & D of abscess Exploration of scrotum (testicular torsion) Pyloromyotomy	2 2 2 2 2 2 2 1	PBA / DOPS / logbook / CSR	
Intensive care of paediatric surgery patients				
Knowledge	Principles of neonatal and paediatric intensive care	❾	CBD	

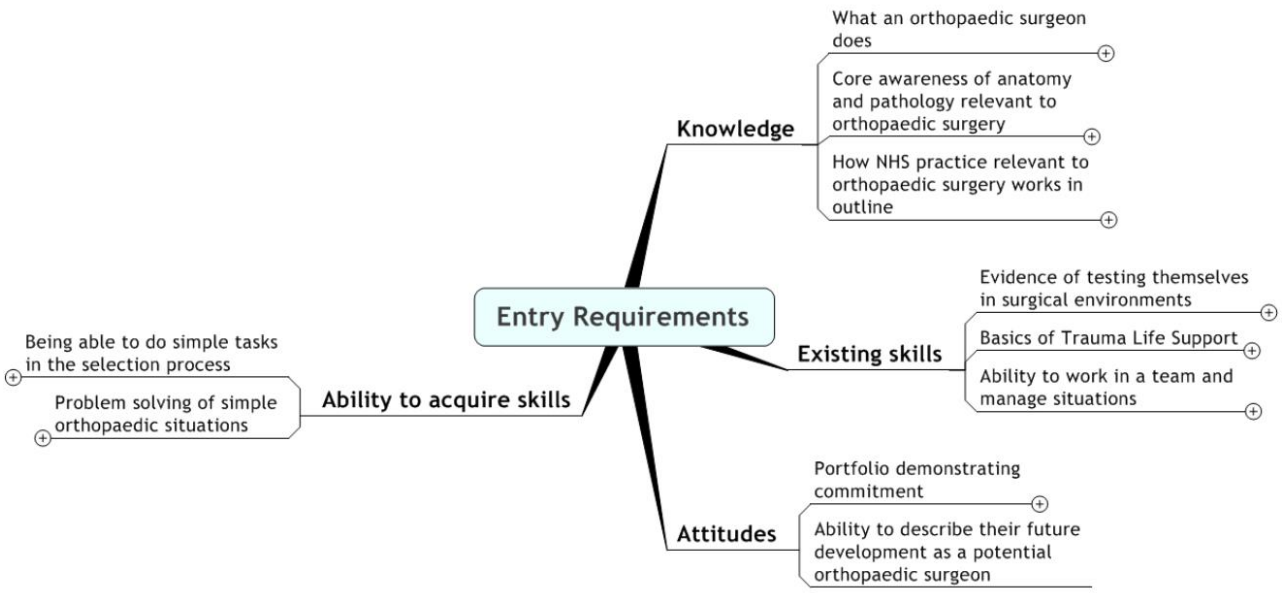
Clinical skills	Assessment and daily management of patients receiving paediatric/neonatal intensive care	2	CEX	
Technical skills and procedures	Insertion of PIC line Tracheal intubation	3 3	PBA / DOPS / logbook / CSR	

	Plastic Surgery	**SS**	**Assessment**	**GMP**
In order to meet the job specifications of an ST3 trainee, an early years' trainee must take a clear role in the plastic surgery team, managing clinic and ward based patients under supervision, including the management of acute plastic surgery admissions. They will need to be able to take part in outpatient clinics and see patients themselves with the consultant available for advice. This means spending 6-12 months in plastic surgery in a service which gives trainees access to the appropriate learning opportunities. Also by the time a trainee enters ST3 they need to be familiar with the operating room environment both with respect to elective and emergency cases. Those conditions that present on an urgent or emergency basis necessarily involve some out of hours working. It is expected that there will be appropriate allocation of duties such that the trainee has the opportunity to gain such experience. It is not regarded as sufficient that trainees be taught on day time trauma lists as this will mean loss of exposure to the more complex and challenging cases that are an important part of the trainee's experience. The range of conditions a trainee needs to manage are laid out below: 1. Assessment and diagnosis of hand trauma cases and including operative management in some cases with appropriate supervision as appropriate 2. Assessment and initial management of burns and scalds in children and adults. 3. Wound management including complex and contaminated wounds and involving both conservative and operative management 4. Assessment and initial management of cases of lower limb trauma involving compound fractures with soft tissue damage, skin loss, major nerve and/or vessel injury 5. Diagnosis and management of skin lesions, including skin malignancy 6. Competence in the use of general plastic surgery techniques in reconstruction including skin grafting, z-plasty, flap elevation and related techniques. Early competence in the use of the operating microscope 7. Management of common elective plastic surgical procedures			
Objective	To acquire sufficient knowledge and skill of the management of patients managed by the plastic surgical team in both elective and emergency environments and in the operating theatre to be ready to enter higher surgical training in plastic surgery.			
Hand Trauma				
Knowledge	Principles of management in hand trauma	**20 21**	CBD	
Clinical skills	Assess, diagnose and formulate management plan for hand trauma cases	3	CEX	
Technical skills and procedures	Flexor tendon repair Extensor tendon repair	2 2	PBA / DOPS / logbook / CSR	

	K-wire fixation closed metacarpal and phalangeal fractures Digital nerve repair Washout of hand infection Revision amputation of digit	2 2 2 2		
Burns				
Knowledge	Principles of management in thermal injury including an understanding of respiratory injury	**20 21**	CBD	
Clinical skills	Assess and initiate the management of burns and scalds in children and adults Assessment of the airway in thermal injury Fluid resuscitation following thermal injury, informed by standard protocols	3 3 3	CEX	
Technical skills and procedures	Change of burns dressings	3	PBA / DOPS / logbook / CSR	
Wound Management				
Knowledge	BAPRAS/BOA guidelines on management of lower limb trauma Principles of the management of complex or contaminated wounds	**20 21**	CBD	
Clinical skills	Assessment and provision of advice on treatment of the open tibial fracture with soft tissue loss, major nerve or vessel injury Assess and initiate treatment for the complex or contaminated wound	3 3	CEX	
Technical skills and procedures	Harvesting of split skin graft Application of vacuum-assisted suction device	3 3	PBA / DOPS / logbook / CSR	
Elective Plastic Surgery				
Knowledge	An appreciation of the breadth of conditions encountered in the elective practice of the plastic surgery	**20 21**	CBD	
Clinical skills	Diagnosis of skin lesions, including skin malignancy	2	CEX	
Technical skills and procedures	Use of the operating microscope Skin grafting Z-plasty Flap elevation	2 2 2 2	PBA / DOPS / logbook / CSR	

20 Thorne CH (2013) Grabb and Smith's Plastic Surgery 7th Ed. Lippincott, Wiliams & Wilkins

21 McGregor AD & McGregor IA (2000) Fundamental Techniques of Plastic Surgery and Their Surgical Applications 10th Ed. Churchill Livingstone

	Trauma & Orthopaedic Surgery	SS	Assessment	GMP
Core trainees wishing to enter T&O for higher training should endeavour to choose a core training programme that enables them to build foundations for a future career in the specialty. This will involve spending a recommended minimum of 12 months in T&O posts as well as at least 8 months in other surgical specialties relevant to T&O, such as general surgery, vascular surgery, plastic surgery, neurosurgery and intensive care. Further, core trainees wishing to enter T&O at ST3 level are encouraged to be involved in audit and research relevant to T&O.  By the end of core training, trainees wishing to enter ST3 in T&O must show competence in the overall management of simple and common trauma episodes. They should also be part of the trauma team involved in the management of major and complex trauma. Specifically, they must be able to manage a limited range of techniques involved in treating fractures around the hip and simple internal fixations around the ankle or wrist. In terms of operative fixation, this small selection contains common technical problems. The techniques utilised to resolve them are representative of the types and levels of skills which give an indication of a trainee's fitness to proceed to ST3.			
Objective	To acquire sufficient knowledge and skill of the management of patients under the care of the Trauma & Orthopaedic team in both elective and emergency environments and in the operating theatre to be ready to enter higher surgical training in Trauma & Orthopaedics.			£
Trauma				
Knowledge	Common fracture patterns of upper and lower limbs and spine - presentation, management and complications Prioritisation of the multiply injured patient Soft tissue injuries including compartment syndrome, open fractures, cauda equina syndrome, peripheral nerve injury - diagnosis and early management. Musculo-skeletal infection - diagnosis and early management	**22**	CBD	
Clinical skills	Peri-operative management of emergency orthopaedic patients.	3	CEX	

	Assessment and management planning, including investigations, of new and follow-up patients in fracture clinics. Interpretation of radiology of musculoskeletal trauma	2 2		
Technical skills and procedures	Application of back-slab cast **(SR)** Removal of encircling limb cast **(SR)** MUA - reduction of displaced fracture / dislocation Ankle - closed reduction of fracture/dislocation Ankle - ORIF lateral malleolus fracture **(SR)** Hip - extra-capsular - reduction and insertion of DHS **(SR)** Hip - intra-capsular - hemiarthroplasty replacement Wrist - closed reduction & cast Wrist - closed reduction & per-cutaneous k-wires **(SR)**	3 4 2 3 2 2 2 2 2	PBA / DOPS / logbook / CSR	
Elective Orthopaedics				
Knowledge	Basic science (inc anatomy, physiology, pharmacology, radiology) relevant to the management of patients with common elective orthopaedic conditions Clinical presentation and pathology of common orthopaedic conditions Principles of management of patients with common orthopaedic conditions Principles of musculoskeletal neoplasia - including skeletal metastases	**22**	CBD	
Clinical skills	Peri-operative management of elective orthopaedic patients Assessment and management, including investigations, of patients in elective orthopaedic clinic Interpretation of radiology of common orthopaedic conditions Discharge planning of patients with common orthopaedic conditions	3 2 2 4	CEX	
Technical skills and procedures	Total hip arthroplasty **(SR)** Total knee arthroplasty **(SR)** Knee arthroscopy **(SR)**	1 1 1	PBA / DOPS / logbook / CSR	

2 Solomon L, Warwick D and Nayagam S (2010) Apley's System of Orthopaedics and Fractures 9th ed. CRC Press

	Urology	**SS**	**Assessment**	**GMP**
In order to meet the job specifications of an ST3 trainee, an early years' trainee must take a clear role in the Urology team, managing clinic and ward based patients under supervision, including the management of acute urological admissions. They will need to be able to take part in an outpatient clinic and see patients themselves with the consultant available for advice. This means spending 6-12 months in Urology in a service which gives trainees access to the appropriate learning opportunities.				

The range of conditions a trainee needs to manage is laid out below:

1. Urinary tract calculi
- to be able to provide the early care of a patient presenting with the symptoms suggestive of urinary tract calculi including onward referral

2. Functional urology
- to be able to provide the early care of a patient presenting with lower urinary tract symptoms and dysfunction including onward referral
- to be able to provide the early care of a patient presenting with urinary tract obstruction including onward referral
- to diagnose and initiate management of a patient presenting with acute or chronic urinary retention

3. Urinary tract infection
- to be able to provide the early care of a patient presenting with urinary tract infections including onward referral when appropriate
- to be able to provide the early care of a patient presenting with epididymitis and scrotal abscess including onward referral when appropriate

4. Urological oncology
- to be able to provide the early care of a patient with suspected urological cancer including onward referral

5. Treatment of renal failure
- to be able to provide the early care of a patient presenting with renal failure including onward referral when appropriate

6. Testicular pain and swelling
- to be able to provide the early care of a patients presenting with acute testicular pain or testicular swelling

Objective	To acquire sufficient knowledge and skill of the management of patients under the care of the Urology team in both elective and emergency environments and in the operating theatre to be ready to enter higher surgical training in Urology.			
Emergency Urology				
Knowledge	Pathophysiology of obstructive uropathy	5 6 23	CBD	
Clinical skills	A systematic prioritised method of managing the patient with urosepsis	3	CEX	
	Contribution to the on-call team as urology representative	2		
	Assessment and early management of patients with acute testicular pain, urinary retention, ureteric colic and obstructive uropathy	3		
Technical skills and procedures	Ability to insert urethral catheters	4	PBA / DOPS / logbook / CSR	
	Ability to insert suprapubic catheters	3		
	Ability to explore the acutely painful testis	3		

Elective Urology				
Knowledge	Detailed anatomy of the urogenital tract Principles of contemporary Urological practice	❶❷ ❺❻ **23**	CBD	
Clinical skills	Assessment and early management of the post-operative urology surgical patient Assessment and planning the investigation of new and follow-up patients in urology outpatient clinics	3 3	CEX	
Technical skills and procedures	Ability to perform flexible cystoscopy Ultrasound guided prostate biopsy	4 2	PBA / DOPS / logbook / CSR	

23 Urology: Lecture Notes (6th edition) Blandy J & Kaisary A. Wiley Blackwell, 2009

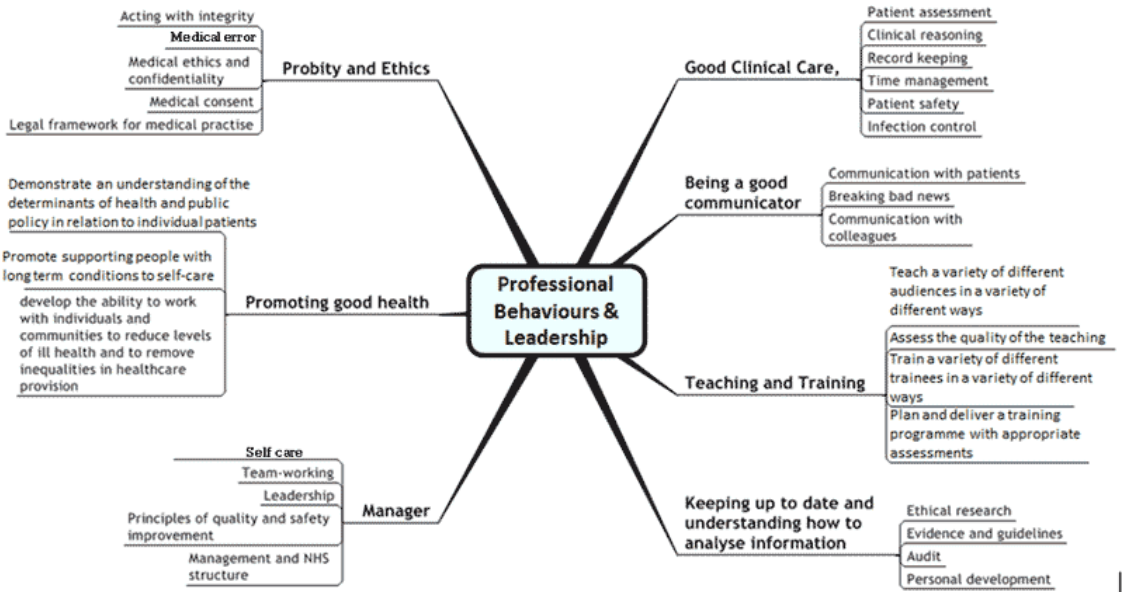
	Vascular Surgery	**SS**	**Assessment**	**GMP**
In order to meet the job specification of an ST3 trainee, an early years' trainee must take a clear role in the surgical team, managing clinic and ward based patients under supervision, including the management of acute admissions. They will need to be able to take part in an outpatient clinic and see both new and follow-up patients themselves with the consultant available for advice. This means that it is desirable to spend 6 months in vascular surgery and essential to spend 6 months in general or vascular surgery in a service which gives trainees access to the appropriate learning opportunities. Because vascular surgical experience is not required for ST3 appointment in that specialty, the outcomes in this module exceed the essential criteria for selection.				
Objective	To acquire sufficient knowledge and skill of the management of patients under the care of the Vascular Surgical team in both elective and emergency environments and in the operating theatre to be ready to enter higher surgical training in Vascular Surgery.			
Aortic Aneurysm				
Knowledge	Aetiology, presentation, investigation and management options for aortic aneurysm in the elective setting Presentation, investigation and management options for ruptured aortic aneurysm	❺ ❻	CBD	
Clinical skills	Assessment and planning investigation of new patients in the out-patient setting Assessment and planning management of patients presenting as emergencies Contribution to Aortic Aneurysm planning MDT meetings	3 2 2	CEX	
Technical skills and procedures	Exposure of the femoral artery for EVAR Open and close laparotomy wounds	2 2	PBA / DOPS / logbook / CSR	
Limb Ischaemia				
Knowledge	Aetiology, presentation, investigation and management of peripheral arterial disease	❺ ❻	CBD	

Clinical skills	Assessment and planning investigation of new patients in the outpatient or emergency setting Interpretation of the results of Duplex US, CT, MR and DSA angiography Measurement of ABP index Contribution to multi-disciplinary meetings	3 2 3 2	CEX	
Technical skills and procedures	Exposure of femoral artery Arterial suturing Angioplasty & endovascular stenting	2 2 1	PBA / DOPS / logbook / CSR	
Venous Disease				
Knowledge	Aetiology, presentation, investigation and management of varicose veins, venous ulcers and deep venous thrombosis	5 6	CBD	
Clinical skills	Assessment and planning investigation of new patients in the outpatient setting Interpretation of results of venous Duplex investigations	3 2	CEX	
Technical skills and procedures	Endovenous treatment of varicose veins Open surgery on the long saphenous vein	1 2	PBA / DOPS / logbook / CSR	
Amputation				
Knowledge	Indications for amputation and the risks of surgery Principles of rehabilitation after amputation	5 6	CBD	
Clinical skills	Assessment of patients and planning level of amputation	2	CEX	
Technical skills and procedures	Major limb amputation	2	PBA / DOPS / logbook / CSR	

Professional Behaviour & Leadership Skills Module

Overview

Professional Behaviour & Leadership Skills Module Professional behaviour and leadership skills are integral to the core syllabus relating to clinical practice. It is not possible to achieve the competencies within the core curriculum unless these skills and behaviours are evident. Professional behaviour and leadership skills are evidenced through clinical practice. By the end of core training, the trainee must be able to demonstrate progress in acquiring these skills and demonstrating these behaviours across a range of situations as detailed in the syllabus.



Under each category heading there are learning objectives in the domains of knowledge, skills and behaviour together with example behaviours. These objectives underpin the activities that are found in the core surgical syllabus. At all times trainees should demonstrate their compliance with the requirements of Good Medical Practice (GMC 2013).

Good Clinical Care

Good Clinical Care, to include:

- History taking
- Physical examination
- Time management and decision making
- Clinical reasoning
- Therapeutics and safe prescribing
- Patient as a focus of clinical care
- Patient safety
- Infection control

Objective

- To achieve an excellent level of care for the individual patient
- To elicit a relevant focused history
- To perform focused, relevant and accurate clinical examination
- To formulate a diagnostic and therapeutic plan for a patient based upon the clinic findings
- To prioritise the diagnostic and therapeutic plan
- To communicate a diagnostic and therapeutic plan appropriately
- To produce timely, complete and legible clinical records to include case-note records, handover notes, and operation notes
- To prescribe, review and monitor appropriate therapeutic interventions relevant to clinical practice including non - medication based therapeutic and preventative indications
- To prioritise and organise clinical and clerical duties in order to optimise patient care
- To make appropriate clinical and clerical decisions in order to optimise the effectiveness of the clinical team resource
- To prioritise the patient's agenda encompassing their beliefs, concerns expectations and needs
- To prioritise and maximise patient safety:
    - To understand that patient safety depends on
        - The effective and efficient organisation of care
        - Health care staff working well together
        - Safe systems, individual competency and safe practice
    - To understand the risks of treatments and to discuss these honestly and openly with patients
    - To systematic ways of assessing and minimising risk
    - To ensure that all staff are aware of risks and work together to minimise risk
- To manage and control infection in patients, including:
    - Controlling the risk of cross-infection
    - Appropriately managing infection in individual patients
    - Working appropriately within the wider community to manage the risk posed by communicable diseases

Knowledge

Patient assessment

- Knows likely causes and risk factors for conditions relevant to mode of presentation
- Understands the basis for clinical signs and the relevance of positive and negative physical signs
- Recognises constraints and limitations of physical examination
- Recognises the role of a chaperone is appropriate or required
- Understands health needs of particular populations e.g. ethnic minorities
- Recognises the impact of health beliefs, culture and ethnicity in presentations of physical and psychological conditions

Clinical reasoning

- Interprets history and clinical signs to generate hypothesis within context of clinical likelihood
- Understands the psychological component of disease and illness presentation
- Tests, refines and verifies hypotheses
- Develops problem list and action plan
- Recognises how to use expert advice, clinical guidelines and algorithms
- Recognises and appropriately responds to sources of information accessed by patients
- Recognises the need to determine the best value and most effective treatment both for the individual patient and for a patient cohort

Record keeping

- Understands local and national guidelines for the standards of clinical record keeping in all circumstances, including handover
- Understands the importance of high quality and adequate clinical record keeping and relevance to patient safety and to litigation
- Understands the primacy for confidentiality

Time management

- Understands that effective organisation is key to time management
- Understands that some tasks are more urgent and/or more important than others
- Understands the need to prioritise work according to urgency and importance
- Maintains focus on individual patient needs whilst balancing multiple competing pressures
- Outlines techniques for improving time management

Patient safety

- Outlines the features of a safe working environment
- Outlines the hazards of medical equipment in common use
- Understands principles of risk assessment and management
- Understands the components of safe working practice in the personal, clinical and organisational settings
- Outlines local procedures and protocols for optimal practice e.g. GI bleed protocol, safe prescribing
- Understands the investigation of significant events, serious untoward incidents and near misses

Infection control

- Understands the principles of infection control
- Understands the principles of preventing infection in high risk groups
- Understands the role of Notification of diseases within the UK

- Understand the role of the Health Protection Agency and Consultants in Health Protection

Skills

Patient assessment

- Takes a history from a patient with appropriate use of standardised questionnaires and with appropriate input from other parties including family members, carers and other health professionals
- Performs an examination relevant to the presentation and risk factors that is valid, targeted and time efficient and which actively elicits important clinical findings
- Gives adequate time for patients and carers to express their beliefs ideas, concerns and expectations
- Responds to questions honestly and seeks advice if unable to answer
- Develops a self-management plan with the patient
- Encourages patients to voice their preferences and personal choices about their care

Clinical reasoning

- Interprets clinical features, their reliability and relevance to clinical scenarios including recognition of the breadth of presentation of common disorders
- Incorporates an understanding of the psychological and social elements of clinical scenarios into decision making through a robust process of clinical reasoning
- Recognises critical illness and responds with due urgency
- Generates plausible hypothesis(es) following patient assessment
- Constructs a concise and applicable problem list using available information
- Constructs an appropriate management plan in conjunction with the patient, carers and other members of the clinical team and communicates this effectively to the patient, parents and carers where relevant

Record keeping

- Produces legible, timely and comprehensive clinical notes relevant to the setting
- Formulates and implements care plans appropriate to the clinical situation, in collaboration with members of an interdisciplinary team, incorporating assessment, investigation, treatment and continuing care
- Presents well documented assessments and recommendations in written and/or verbal form

Time management

- Identifies clinical and clerical tasks requiring attention or predicted to arise
- Groups together tasks when this will be the most effective way of working
- Organises, prioritises and manages both team-members and workload effectively and flexibly

Patient safety

- Recognises and practises within limits of own professional competence
- Recognises when a patient is not responding to treatment, reassesses the situation, and encourages others to do so
- Ensures the correct and safe use of medical equipment
- Improves patients' and colleagues' understanding of the side effects and contraindications of therapeutic intervention
- Sensitively counsels a colleague following a significant untoward event, or near incident, to encourages improvement in practice of individual and unit
- Recognises and responds to the manifestations of a patient's deterioration or lack of improvement (symptoms, signs, observations, and laboratory results) and supports other members of the team to act similarly

Infection control

- Recognises the potential for infection within patients being cared for
- Counsels patients on matters of infection risk, transmission and control
- Actively engages in local infection control procedures
- Prescribes antibiotics according to local guidelines and work with microbiological services where appropriate
- Recognises potential for cross-infection in clinical settings
- Practices aseptic technique whenever relevant

Behaviour

- Shows respect and behaves in accordance with Good Medical Practice
- Ensures that patient assessment, whilst clinically appropriate, considers social, cultural and religious boundaries
- Supports patient self-management
- Recognises the duty of the medical professional to act as patient advocate
- Works flexibly and deals with tasks in an effective and efficient fashion
- Remains calm in stressful or high pressure situations and adopts a timely, rational approach
- Shows willingness to discuss intelligibly with a patient the notion and difficulties of prediction of future events, and benefit/risk balance of therapeutic intervention
- Shows willingness to adapt and adjust approaches according to the beliefs and preferences of the patient and/or carers
- Shows willingness to facilitate patient choice
- Demonstrates ability to identify one's own biases and inconsistencies in clinical reasoning
- Continues to maintain a high level of safety awareness and consciousness
- Encourages feedback from all members of the team on safety issues
- Reports serious untoward incidents and near misses and co-operates with the investigation of the same.
- Shows willingness to take action when concerns are raised about performance of members of the healthcare team, and acts appropriately when these concerns are voiced by others
- Continues to be aware of one's own limitations, and operates within them

- Encourages all staff, patients and relatives to observes infection control principles
- Recognises the risk of personal ill-health as a risk to patients and colleagues in addition to its effect on performance

Examples and Descriptors

Examples and descriptors for Core Surgical Training

Patient assessment

- Obtains, records and presents accurate clinical history and physical examination relevant to the clinical presentation, including an indication of patient's views
- Uses and interprets findings adjuncts to basic examination appropriately e.g. internal examination, blood pressure measurement, pulse oximetry, peak flow
- Responds honestly and promptly to patient questions
- Knows when to refer for senior help
- Is respectful to patients by
- Introducing self clearly to patients and indicating own place in team
- Checking that patients are comfortable and willing to be seen
- Informing patients about elements of examination and any procedures that the patient will undergo

Clinical reasoning

- In a straightforward clinical case, develops a provisional diagnosis and a differential diagnosis on the basis of the clinical evidence, institutes an appropriate investigative and therapeutic plan, seeks appropriate support from others and takes account of the patient's wishes

Record keeping

- Formats notes in a logical way and writes legibly
- Writes timely, comprehensive, informative letters to patients and to GPs

Time management

- Works systematically through tasks and attempts to prioritise
- Discusses the relative importance of tasks with more senior colleagues
- Understands importance of communicating progress with other team members

Patient safety

- Participates in clinical governance processes
- Respects and follows local protocols and guidelines
- Takes direction from the team members on patient safety

- Discusses risks of treatments with patients and is helps patients make decisions about their treatment
- Ensures the safe use of equipment
- Acts promptly when patient condition deteriorates
- Always escalates concerns promptly

Infection control

- Performs simple clinical procedures whilst maintaining full aseptic precautions
- Follows local infection control protocols
- Explains infection control protocols to students and to patients and their relatives
- Is aware of the risks of nosocomial infections.

Examples and descriptors for CCT

Patient assessment

- Undertakes patient assessment (including history and examination) under difficult circumstances. Examples include:
- Limited time available (Emergency situations, Outpatients, ward referral),
- Severely ill patients
- Angry or distressed patients or relatives
- Uses and interprets findings adjuncts to basic examination appropriately e.g. electrocardiography, spirometry, ankle brachial pressure index, fundoscopy, sigmoidoscopy
- Recognises and deals with complex situations of communication, accommodates disparate needs and develops strategies to cope
- Is sensitive to patients cultural concerns and norms
- Explains diagnoses and medical procedures in ways that enable patients understand and make decisions about their own health care.

Clinical reasoning

- In a complex case, develops a provisional diagnosis and a differential diagnosis on the basis of the clinical evidence, institutes an appropriate investigative and therapeutic plan, seeks appropriate support from others and takes account of the patient's wishes

Record keeping

- Produces comprehensive, focused and informative records which summarise complex cases accurately

Time management

- Organises, prioritises and manages daily work efficiently and effectively
- Works with, guides, supervises and supports junior colleagues
- Is starting to lead and direct the clinical team in effective fashion

Patient safety

- Leads team discussion on risk assessment, risk management, clinical incidents
- Works to make organisational changes that will reduce risk and improve safety
- Promotes patients safety to more junior colleagues
- Recognises and reports untoward or significant events
- Undertakes a root cause analysis
- Shows support for junior colleagues who are involved in untoward events

Infection control

- Performs complex clinical procedures whilst maintaining full aseptic precautions
- Manages complex cases effectively in collaboration with infection control specialists

Assessment technique

- CEX, CBD, MSF, MRCS and Specialty FRCS

Communication with patients

Objective

- To establish a doctor/patient relationship characterised by understanding, trust, respect, empathy and confidentiality
- To communicate effectively by listening to patients, asking for and respecting their views about their health and responding to their concerns and preferences
- To cooperate effectively with healthcare professionals involved in patient care
- To provide appropriate and timely information to patients and their families

Knowledge

- Understanding that poor communication is a cause of complaints/ litigation

Skills

- Establishes a rapport with the patient and any relevant others (e.g. carers)
- Listens actively and questions sensitively to guide the patient and to clarify information
- Identifies and manages communication barriers, tailoring language to the individual patient and others and using interpreters when indicated
- Delivers information compassionately, being alert to and managing their and own emotional response (anxiety, antipathy etc)
- Uses, and refers patients to appropriate written and other evidence based information sources

- Checks the patient's understanding, ensuring that all their concerns/questions have been covered
- Makes accurate contemporaneous records of the discussion
- Manages follow-up effectively and safely utilising a variety if methods (e.g. phone call, email, letter)
- Takes every opportunity to advise patients on health and self-care e.g. use of alcohol and drugs
- Ensures appropriate referral and communications with other healthcare professionals resulting from the consultation are made accurately and in a timely manner

Behaviour

- Approaches the situation with courtesy, empathy, compassion and professionalism
- Demonstrates an inclusive and patient centred approach with respect for the diversity of values in patients, carers and colleagues

Examples and Descriptors

Examples and descriptors for Core Surgical Training

- Conducts a simple consultation with due empathy and sensitivity and writes accurate records thereof
- Recognises when bad news must be imparted.
- Is able to break bad news in planned settings following preparatory discussion with seniors
- Accepts his/her role in the healthcare team and communicates appropriately with all relevant members thereof

Examples and descriptors for CCT

- Shows mastery of patient communication in all situations, anticipating and managing any difficulties which may occur
- Is able to break bad news in both unexpected and planned settings
- Fully recognises the role of, and communicates appropriately with, all relevant team members
- Predicts and manages conflict between members of the healthcare team
- Is beginning to take leadership role as appropriate, fully respecting the skills, responsibilities and viewpoints of all team members

Assessment Technique

- PBA, DOPS, CEX, MSF and CBD

Breaking bad news

Objective

- To deliver bad news according to the needs of individual patients

Knowledge

- The delivery of bad news affects the relationship with the patient
- Patients have different responses to bad news
- Bad news is confidential but the patient may wish to be accompanied
- Once the news is given, patients are unlikely to take in anything else
- Breaking bad news can be extremely stressful for both parties
- It is important to prepare for breaking bad news

Skills

- Demonstrates to others good practice in breaking bad news
- Recognises the impact of the bad news on the patient, carer, supporters, staff members and self
- Acts with empathy, honesty and sensitivity avoiding undue optimism or pessimism

Behaviour

- Behaves with respect, honesty and empathy when breaking bad news
- Respects the different ways people react to bad news

Examples and Descriptors

Examples and descriptors for Core Surgical Training

- Conducts a simple consultation with due empathy and sensitivity and writes accurate records thereof
- Recognises when bad news must be imparted.
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Assessment Technique

- PBA, DOPS, CEX, MSF and CBD

Communication with colleagues

Objective

- To recognise and accept the responsibilities and role of the doctor in relation to other healthcare professionals.
- To communicate succinctly and effectively with other professionals as appropriate
- To present a clinical case in a clear, succinct and systematic manner

Knowledge

- Understand the importance of working with colleagues, in particular:
- The roles played by all members of a multi-disciplinary team
- The features of good team dynamics
- The principles of effective inter-professional collaboration
- The principles of confidentiality

Skills

- Communicates with colleagues accurately, clearly and promptly
- Utilises the expertise of the whole multi-disciplinary team
- Participates in, and co-ordinates, an effective hospital at night or hospital out-of-hours team
- Communicates effectively with administrative bodies and support organisations
- Prevents and resolves conflict and enhances collaboration

Behaviour

- Is aware of the importance of, and takes part in, multi-disciplinary teamwork, including adoption of a leadership role
- Fosters an environment that supports open and transparent communication between team members
- Ensures confidentiality is maintained during communication with the team
- Is prepared to accept additional duties in situations of unavoidable and unpredictable absence of colleagues
- Acts appropriately on any concerns about own or colleagues' health e.g. use of alcohol and/or other drugs

Examples and Descriptors

Examples and descriptors for Core Surgical Training

- Conducts a simple consultation with due empathy and sensitivity and writes accurate records thereof
- Recognises when bad news must be imparted
- Is able to break bad news in planned settings following preparatory discussion with seniors
- Accepts his/her role in the healthcare team and communicates appropriately with all relevant members thereof

Examples and descriptors for CCT

- Shows mastery of patient communication in all situations, anticipating and managing any difficulties which may occur
- Is able to break bad news in both unexpected and planned settings
- Fully recognises the role of, and communicates appropriately with, all relevant team members
- Predicts and manages conflict between members of the healthcare team
- Is beginning to take leadership role as appropriate, fully respecting the skills, responsibilities and viewpoints of all team members

Assessment Technique

- PBA, DOPS, CEX, MSF and CBD

Teaching and Training

Objective

- To teach to a variety of different audiences in a variety of different ways
- To assess the quality of the teaching
- To train a variety of different trainees in a variety of different ways
- To plan and deliver a training programme with appropriate assessments

Knowledge

- Understands relevant educational theory and principles relevant to medical education
- Understands the structure of an effective appraisal interview
- Understands the roles to the bodies involved in medical education
- Understands learning methods and effective learning objectives and outcomes
- Differentiates between appraisal, assessment and performance review
- Differentiates between formative and summative assessment
- Understands the role, types and use of workplace-based assessments
- Understands the appropriate course of action to assist a trainee in difficulty

Skills

- Critically evaluate relevant educational literature
- Vary teaching format and stimulus, appropriate to situation and subject
- Provide effective feedback and promote reflection
- Conduct developmental conversations as appropriate e.g. appraisal, supervision, mentoring
- Deliver effective lecture, presentation, small group and bedside teaching sessions
- Participates in patient education
- Leads departmental teaching programmes including journal clubs
- Recognises the trainee in difficulty and takes appropriate action
- Is able to identify and plan learning activities in the workplace

Behaviour

- In discharging educational duties, respect the dignity and safety of patients at all times
- Recognise the importance of the role of the physician as an educator
- Balances the needs of service delivery with education
- Demonstrates willingness to teach trainees and other health workers
- Demonstrates consideration for learners
- Acts to ensure equality of opportunity for students, trainees, staff and professional colleagues
- Encourages discussions with colleagues in clinical settings to share understanding
- Maintains honesty, empathy and objectivity during appraisal and assessment

Examples and Descriptors

Examples and descriptors for Core Surgical Training

- Prepares appropriate materials to support teaching episodes
- Seeks and interprets simple feedback following teaching
- Supervises a medical student, nurse or colleague through a simple procedure
- Plans, develops and delivers small group teaching to medical students, nurses or colleagues

Examples and descriptors for CCT

- Performs a workplace based assessment including giving appropriate feedback
- Devises a variety of different assessments (e.g. MCQs, WPBAs)
- Appraises a medical student, nurse or colleague
- Acts as a mentor to a medical student, nurses or colleague
- Plans, develops and delivers educational programmes with clear objectives and outcomes
- Plans, develops and delivers an assessment programme to support educational activities

Assessment Technique

- MSF, Portfolio assessment at ARCP

Keeping up to date and understanding how to analyse information

Objective

Including:

- Ethical research
- Evidence and guidelines
- Audit
- Personal development
    - To understand the results of research as they relate to medical practise
    - To participate in medical research
    - To use current best evidence in making decisions about the care of patients
    - To construct evidence based guidelines and protocols
    - To complete an audit of clinical practice
    - At actively seek opportunities for personal development
    - To participate in continuous professional development activities

Knowledge

- Understands GMC guidance on good practice in research
- Understands the principles of research governance
- Understands research methodology including qualitative, quantitative, bio-statistical and epidemiological research methods
- Understands the application of statistics as applied to medical practise
- Outlines sources of research funding
- Understands the principles of critical appraisal
- Understands levels of evidence and quality of evidence
- Understands guideline development together with their roles and limitations
- Understands the different methods of obtaining data for audit
- Understands the role of audit in improving patient care and risk management
- Understands the audit cycle
- Understands the working and uses of national and local databases used for audit such as specialty data collection systems, cancer registries, etc.
- Demonstrates knowledge of the importance of best practice, transparency and consistency

Skills

- Develops critical appraisal skills and applies these when reading literature
- Devises a simple plan to test a hypothesis
- Demonstrates the ability to write a scientific paper

- Obtains appropriate ethical research approval
- Uses literature databases
- Contributes to the construction, review and updating of local (and national) guidelines of good practice using the principles of evidence based medicine
- Designs, implements and completes audit cycles
- Contributes to local and national audit projects as appropriate
- Uses a reflective approach to practice with an ability to learn from previous experience
- Uses assessment, appraisal, complaints and other feedback to discuss and develop an understanding of own development needs

Behaviour

- Follows guidelines on ethical conduct in research and consent for research
- Keeps up to date with national reviews and guidelines of practice (e.g. NICE)
- Aims for best clinical practice at all times, responding to evidence based medicine while recognising the occasional need to practise outside clinical guidelines
- Recognises the need for audit in clinical practice to promote standard setting and quality assurance
- Is prepared to accept responsibility
- Shows commitment to continuing professional development

Examples and Descriptors

Examples and descriptors for Core Surgical Training

- Defines ethical research and demonstrates awareness of GMC guidelines
- Differentiates audit and research and understands the different types of research approach e.g. qualitative and quantitative
- Knows how to use literature databases
- Demonstrates good presentation and writing skills
- Participates in departmental or other local journal club
- Critically reviews an article to identify the level of evidence
- Attends departmental audit meetings
- Contributes data to a local or national audit
- Identifies a problem and develops standards for a local audit
- Describes the audit cycle and take an audit through the first steps
- Seeks feedback on performance from clinical supervisor/mentor/patients/carers/service users

Examples and descriptors for CCT

- Demonstrates critical appraisal skills in relation to the published literature
- Demonstrates ability to apply for appropriate ethical research approval
- Demonstrates knowledge of research organisation and funding sources
- Demonstrates ability to write a scientific paper
- Leads in a departmental or other local journal club

- Contributes to the development of local or national clinical guidelines or protocols
- Organises or leads a departmental audit meeting
- Leads a complete clinical audit cycle including development of conclusions, the changes needed for improvement, implementation of findings and re-audit to assess the effectiveness of the changes
- Seeks opportunity to visit other departments and learn from other professionals

Assessment Technique

- MSF, CBD, Portfolio assessment at ARCP, MRCS and specialty FRCS

Self-awareness and self-management

Objective

- To recognise and articulate one's own values and principles, appreciating how these may differ from those of others
- To identify one's own strengths, limitations and the impact of one's behaviour
- To identify one's own emotions and prejudices and understand how these can affect one's judgement and behaviour
- To obtain, value and act on feedback from a variety of sources
- To manage the impact of emotions on behaviour and actions
- To be reliable in fulfilling responsibilities and commitments to a consistently high standard
- To ensure that plans and actions are flexible, and take into account the needs and requirements of others
- To plan workload and activities to fulfil work requirements and commitments with regard to one's own personal health

Knowledge

- Demonstrates knowledge of ways in which individual behaviours impact on others;
- Demonstrates knowledge of personality types, group dynamics, learning styles, leadership styles
- Demonstrates knowledge of methods of obtaining feedback from others
- Demonstrates knowledge of tools and techniques for managing stress
- Demonstrates knowledge of the roles and responsibilities of occupational health and other support networks
- Demonstrates knowledge of the limitations of self-professional competence

Skills

- Demonstrates the ability to maintain and routinely practice critical self-awareness, including ability to discuss strengths and weaknesses with supervisor, recognising external influences and changing behaviour accordingly

- Demonstrates the ability to show awareness of and sensitivity to the way in which cultural and religious beliefs affect approaches and decisions, and to respond respectfully
- Demonstrates the ability to recognise the manifestations of stress on self and others and knows where and when to look for support
- Demonstrates the ability to balance personal and professional roles and responsibilities, prioritise tasks, having realistic expectations of what can be completed by self and others

Behaviour

- Adopts a patient-focused approach to decisions that acknowledges the rights, values and strengths of patients and the public
- Recognises and shows respect for diversity and differences in others
- Is conscientious, able to manage time and delegate
- Recognises personal health as an important issue

Examples and Descriptors

Examples and descriptors for Core Surgical Training

- Obtains 360° feedback as part of an assessment
- Participates in peer learning and explores leadership styles and preferences
- Provides timely completion of written clinical notes
- Through feedback, discusses and reflects on how a personally emotional situation affected communication with another person
- Learns from a session on time management

Examples and descriptors for CCT

- Participates in case conferences as part of multidisciplinary and multi-agency team
- Responds to service pressures in a responsible and considered way
- Liaises with colleagues in the planning and implementation of work rotas

Assessment Technique

- MSF and CBD

Team working

Objective

- To identify opportunities where working with others can bring added benefits
- To work well in a variety of different teams and team settings by listening to others, sharing information, seeking the views of others, empathising with others, communicating well, gaining trust, respecting roles and expertise of others, encouraging others, managing differences of opinion, adopting a team approach

Knowledge

- Outline the components of effective collaboration and team working
- Demonstrate knowledge of specific techniques and methods that facilitate effective and empathetic communication
- Demonstrate knowledge of techniques to facilitate and resolve conflict
- Describe the roles and responsibilities of members of the multidisciplinary team
- Outline factors adversely affecting a doctor's and team performance and methods to rectify these
- Demonstrate knowledge of different leadership styles

Skills

- Preparation of patient lists with clarification of problems and ongoing care plan
- Detailed handover between shifts and areas of care
- Communicate effectively in the resolution of conflict, providing feedback
- Develop effective working relationships with colleagues within the multidisciplinary team
- Demonstrate leadership and management in the following areas:
- Education and training of junior colleagues and other members of the team
- Deteriorating performance of colleagues (e.g. stress, fatigue)
- Effective handover of care between shifts and teams
- Lead and participate in interdisciplinary team meetings

- Provide appropriate supervision to less experienced colleagues
- Timely preparation of tasks which need to be completed to a deadline

Behaviour

- Encourage an open environment to foster and explore concerns and issues about the functioning and safety of team working
- Recognise limits of own professional competence and only practise within these
- Recognise and respect the skills and expertise of others
- Recognise and respect the request for a second opinion
- Recognise the importance of induction for new members of a team
- Recognise the importance of prompt and accurate information sharing with Primary Care team following hospital discharge

Examples and Descriptors

Examples and descriptors for Core Surgical Training

- Works well within the multidisciplinary team and recognises when assistance is required from the relevant team member
- Invites and encourages feedback from patients

- Demonstrates awareness of own contribution to patient safety within a team and is able to outline the roles of other team members
- Keeps records up-to-date and legible and relevant to the safe progress of the patient
- Hands over care in a precise, timely and effective manner
- Supervises the process of finalising and submitting operating lists to the theatre suite

Examples and descriptors for CCT

- Discusses problems within a team and provides an analysis and plan for change
- Works well in a variety of different teams
- Shows the leadership skills necessary to lead the multidisciplinary team
- Beginning to leads multidisciplinary team meetings
- Promotes contribution from all team members
- Fosters an atmosphere of collaboration
- Ensures that team functioning is maintained at all times
- Recognises need for optimal team dynamics
- Promotes conflict resolution
- Recognises situations in which others are better equipped to lead or where delegation is appropriate

Assessment Technique

- MSF, CBD and Portfolio assessment during ARCP

Leadership

Objective

- To develop the leadership skills necessary to lead teams effectively. These include:
- Identification of contexts for change
- Application of knowledge and evidence to produce an evidence based challenge to systems and processes
- Making decision by integrating values with evidence
- Evaluating impact of change and taking corrective action where necessary

Knowledge

- Understands the responsibilities of the various Executive Board members and Clinical Directors or leaders
- Understands the function and responsibilities of national bodies such as DH, HCC, NICE, NPSA, NCAS; Royal Colleges and Faculties, specialty specific bodies, representative bodies; regulatory bodies; educational and training organisations
- Demonstrates knowledge of patient outcome reporting systems within surgery, and the organisation and how these relate to national programmes
- Understands how decisions are made by individuals, teams and the organisation

- Understands effective communication strategies within organisations
- Demonstrates knowledge of impact mapping of service change, barriers to change, qualitative methods to gather the experience of patients and carers

Skills

- Discusses the local, national and UK health priorities and how they impact on the delivery of health care relevant to surgery
- Identifies trends, future options and strategy relevant to surgery
- Compares and benchmarks healthcare services
- Uses a broad range of scientific and policy publications relating to delivering healthcare services
- Prepares for meetings by reading agendas, understanding minutes, action points and background research on agenda items
- Works collegiately and collaboratively with a wide range of people outside the immediate clinical setting
- Evaluates outcomes and re-assesses the solutions through research, audit and quality assurance activities
- Understands the wider impact of implementing change in healthcare provision and the potential for opportunity costs

Behaviour

- Demonstrates compliance with national guidelines that influence healthcare provision
- Articulates strategic ideas and uses effective influencing skills
- Understands issues and potential solutions before acting
- Appreciates the importance of involving the public and communities in developing health services
- Participates in decision making processes beyond the immediate clinical care setting
- Demonstrates commitment to implementing proven improvements in clinical practice and services
- Obtains the evidence base before declaring effectiveness of changes

Examples and Descriptors

Examples and descriptors for Core Surgical Training

- Complies with clinical governance requirements of organisation
- Presents information to clinical and service managers (e.g. audit)
- Contributes to discussions relating to relevant issues e.g. workload, cover arrangements using clear and concise evidence and information

Examples and descriptors for CCT

- Shadows NHS managers
- Attends multi-agency conference

- Uses and interprets departments performance data and information to debate services
- Participates in clinical committee structures within an organisation

Assessment Technique

- MSF, CBD and Portfolio assessment during ARCP

Principles of quality and safety improvement

Objective

- To recognise the desirability of monitoring performance, learning from mistakes and adopting a no blame culture in order to ensure high standards of care and optimise patient safety
- To critically evaluate services
- To identify where services can be improved
- To support and facilitate innovative service improvement

Knowledge

- Understands the elements of clinical governance and its relevance to clinical care
- Understands significant event reporting systems relevant to surgery
- Understands the importance of evidence-based practice in relation to clinical effectiveness
- Understands risks associated with the surgery including mechanisms to reduce risk
- Outlines the use of patient early warning systems to detect clinical deterioration
- Keeps abreast of national patient safety initiatives including National Patient Safety Agency, NCEPOD reports, NICE guidelines etc
- Understands quality improvement methodologies including feedback from patients, public and staff
- Understands the role of audit, research, guidelines and standard setting in improving quality of care
- Understands methodology of creating solutions for service improvement
- Understands the implications of change

Skills

- Adopts strategies to reduce risk e.g. Safe surgery
- Contributes to quality improvement processes e.g.
- Audit of personal and departmental performance
- Errors / discrepancy meetings
- Critical incident and near miss reporting
- Unit morbidity and mortality meetings
- Local and national databases
- Maintain a personal portfolio of information and evidence
- Creatively question existing practise in order to improve service and propose solutions

Behaviour

- Participates in safety improvement strategies such as critical incident reporting
- Develops reflection in order to achieve insight into own professional practice
- Demonstrates personal commitment to improve own performance in the light of feedback and assessment
- Engages with an open no blame culture
- Responds positively to outcomes of audit and quality improvement
- Co-operates with changes necessary to improve service quality and safety

Examples and Descriptors

Examples and descriptors for Core Surgical Training

- Understands that clinical governance is the over-arching framework that unites a range of quality improvement activities
- Participates in local governance processes
- Maintains personal portfolio
- Engages in clinical audit
- Questions current systems and processes

Examples and descriptors for CCT

- Is able to define key elements of clinical governance
- Demonstrates personal and service performance
- Designs audit protocols and completes audit cycle
- Identifies areas for improvement and initiates improvement projects
- Supports and participates in the implementation of change
- Leads in review of patient safety issue
- Understands change management

Assessment Technique

- MSF, CBD and Portfolio assessment during ARCP

Management and NHS culture

Objective

- To organise a task where several competing priorities may be involved
- To actively contribute to plans which achieve service goals
- To manage resources effectively and safely
- To manage people effectively and safely

- To manage performance of themselves and others
- To understand the structure of the NHS and the management of local healthcare systems in order to be able to participate fully in managing healthcare provision

Knowledge

- Understand the guidance given on management and doctors by the GMC
- Understand the structure of the NHS and its constituent organisation
- Understand the structure and function of healthcare systems as they apply to surgery
- Understand the principles of:
- Clinical coding
- Relevant legislation including Equality and Diversity, Health and Safety, Employment law, European Working Time Regulations
- National Service Frameworks
- Health regulatory agencies (e.g. NICE, Scottish Government)
- NHS Structure and relationships
- NHS finance and budgeting
- Consultant contract
- Commissioning, funding and contracting arrangements
- Resource allocation
- The role of the independent sector as providers of healthcare
- Patient and public involvement processes and role
- Understand the principles of recruitment and appointment procedures
- Understand basic management techniques

Skills

- Manage time and resources effectively
- Utilise and implement protocols and guidelines
- Participate in managerial meetings
- Take an active role in promoting the best use of healthcare resources
- Work with stakeholders to create and sustain a patient-centred service
- Employ new technologies appropriately, including information technology
- Conduct an assessment of the community needs for specific health improvement measures

Behaviour

- Management and NHS Structures
- Recognise the importance of equitable allocation of healthcare resources and of commissioning
- Recognise the role of doctors as active participants in healthcare systems
- Respond appropriately to health service objectives and targets and take part in the development of services
- Recognise the role of patients and carers as active participants in healthcare systems and service planning

- Show willingness to improve managerial skills (e.g. management courses) and engage in management of the service

Examples and Descriptors

Examples and descriptors for Core Surgical Training

- Participates in audit to improve a clinical service
- Works within corporate governance structures
- Demonstrates ability to manage others by teaching and mentoring juniors, medical students and others, delegating work effectively,
- Highlights areas of potential waste

Examples and descriptors for CCT

- Can describe in outline the roles of primary care, including general practice, public health, community, mental health, secondary and tertiary care services within healthcare
- Participates fully in clinical coding arrangements and other relevant local activities
- Can describe the relationship between PCTs/Health Boards, General Practice and Trusts including relationships with local authorities and social services
- Participates in team and clinical directorate meetings including discussions around service development
- Discusses the most recent guidance from the relevant health regulatory agencies in relation to the surgical specialty
- Can describe the local structure for health services and how they relate to regional or devolved administration structures
- Discusses funding allocation processes from central government in outline and how that might impact on the local health organisation

Assessment Technique

- MSF, CBD and Portfolio assessment during ARCP

Promoting good health

Objective

- To demonstrate an understanding of the determinants of health and public policy in relation to individual patients
- To promote supporting people with long term conditions to self-care
- To develop the ability to work with individuals and communities to reduce levels of ill health and to remove inequalities in healthcare provision
- To promote self-care

Knowledge

- Understands guidance documents relevant to the support of self care
- Recognises the agencies that can provide care and support out with the hospital
- Understands the factors which influence the incidence and prevalence of common conditions including psychological, biological, social, cultural and economic factors
- Understands the screening programmes currently available within the UK
- Understands the possible positive and negative implications of health promotion activities
- Demonstrates knowledge of the determinants of health worldwide and strategies to influence policy relating to health issues
- Outlines the major causes of global morbidity and mortality and effective, affordable interventions to reduce these

Skills

- Adapts assessment and management accordingly to the patient's social circumstances
- Assesses patient's ability to access various services in the health and social system and offers appropriate assistance
- Ensures appropriate equipment and devices are discussed and where appropriate puts the patient in touch with the relevant agency
- Facilitates access to appropriate training and skills to develop the patient's confidence and competence to self care
- Identifies opportunities to promote change in lifestyle and to prevent ill health
- Counsels patients appropriately on the benefits and risks of screening and health promotion activities

Behaviour

- Recognises the impact of long term conditions on the patient, family and friends
- Puts patients in touch with the relevant agency including the voluntary sector from where they can access support or equipment relevant to their care
- Shows willingness to maintain a close working relationship with other members of the multi-disciplinary team, primary and community care
- Recognises and respects the role of family, friends and carers in the management of the patient with a long term condition
- Encourages where appropriate screening to facilitate early intervention

Examples and Descriptors

Examples and descriptors for Core Surgical Training

- Understands that "quality of life" is an important goal of care and that this may have different meanings for each patient
- Promotes patient self care and independence
- Helps the patient to develop an active understanding of their condition and how they can be involved in self management

- Discusses with patients those factors which could influence their health

Examples and descriptors for CCT

- Demonstrates awareness of management of long term conditions
- Develops management plans in partnership with the patient that are pertinent to the patients long term condition
- Engages with relevant external agencies to promote improving patient care
- Supports small groups in a simple health promotion activity
- Discusses with small groups the factors that have an influence on their health and describes steps they can undertake to address these
- Provides information to an individual about a screening programme offering specific guidance in relation to their personal health and circumstances concerning the factors that would affect the risks and benefits of screening to them as an individual.

Assessment Technique

- MRCS, specialty FRCS, CBD, MSF

Probity and Ethics

Objective

To include:

- Acting with integrity
- Medical Error
- Medical ethics and confidentiality
- Medical consent
- Legal framework for medical practise
- To uphold personal, professional ethics and values, taking into account the values of the organisation and the culture and beliefs of individuals
- To communicate openly, honestly and inclusively
- To act as a positive role model in all aspects of communication
- To take appropriate action where ethics and values are compromised
- To recognise and respond to the causes of medical error
- To respond appropriately to complaints
- To know, understand and apply appropriately the principles, guidance and laws regarding medical ethics and confidentiality as they apply to surgery
- To understand the necessity of obtaining valid consent from the patient and how to obtain
- To understand the legal framework within which healthcare is provided in the UK
- To recognise, analyse and know how to deal with unprofessional behaviours in clinical practice, taking into account local and national regulations
- To understand ethical obligations to patients and colleagues
- To appreciate an obligation to be aware of personal good health

Knowledge

- Understands local complaints procedure
- Recognises factors likely to lead to complaints
- Understands the differences between system and individual errors
- Outlines the principles of an effective apology
- Knows and understands the professional, legal and ethical codes of the General Medical Council and any other codes to which the physician is bound
- Understands of the principles of medical ethics
- Understands the principles of confidentiality
- Understands the Data Protection Act and Freedom of Information Act
- Understands the principles of Information Governance and the role of the Caldicott Guardian
- Understands the legal framework for patient consent in relation to medical practise
- Recognises the factors influencing ethical decision making including religion, personal and moral beliefs, cultural practices
- Understands the standards of practice defined by the GMC when deciding to withhold or withdraw life-prolonging treatment
- Understands the UK legal framework and GMC guidelines for taking and using informed consent for invasive procedures including issues of patient incapacity

Skills

- Recognises, analyses and knows how to deal with unprofessional behaviours in clinical practice, taking into account local and national regulations
- Creates open and nondiscriminatory professional working relationships with colleagues
- Shows awareness of the need to prevent bullying and harassment
- Contributes to processes whereby complaints are reviewed and learned from
- Explains comprehensibly to the patient the events leading up to a medical error or serious untoward incident, and sources of support for patients and their relatives
- Delivers an appropriate apology and explanation relating to error
- Uses and shares information with the highest regard for confidentiality both within the team and in relation to patients
- Counsels patients, family, carers and advocates tactfully and effectively when making decisions about resuscitation status, and withholding or withdrawing treatment
- Presents all information to patients (and carers) in a format they understand, checking understanding and allowing time for reflection on the decision to give consent
- Provides a balanced view of all care options
- Applies the relevant legislation that relates to the health care system in order to guide one's clinical practice including reporting to the Coroner's/Procurator Officer, the Police or the proper officer of the local authority in relevant circumstances
- Is able to prepare appropriate medical legal statements for submission to the Coroner's Court, Procurator Fiscal, Fatal Accident Inquiry and other legal proceedings
- Is prepared to present such material in Court

Behaviour

- Demonstrates acceptance of professional regulation
- Promotes professional attitudes and values
- Demonstrates probity and the willingness to be truthful and to admit errors
- Adopts behaviour likely to prevent causes for complaints
- Deals appropriately with concerned or dissatisfied patients or relatives
- Recognises the impact of complaints and medical error on staff, patients, and the National Health Service
- Contributes to a fair and transparent culture around complaints and errors
- Recognises the rights of patients to make a complaint
- Identifies sources of help and support for patients and oneself when a complaint is made about oneself or a colleague
- Shows willingness to seek advice of peers, legal bodies, and the GMC in the event of ethical dilemmas over disclosure and confidentiality
- Shares patient information as appropriate, taking into account the wishes of the patient
- Shows willingness to seek the opinion of others when making decisions about resuscitation status, and withholding or withdrawing treatment
- Seeks and uses consent from patients for procedures that they are competent to perform while
- Respecting the patient's autonomy
- Respecting personal, moral or religious beliefs
- Not exceeding the scope of authority given by the patient
- Not withholding relevant information
- Seeks a second opinion, senior opinion, and legal advice in difficult situations of consent or capacity
- Shows willingness to seek advice from the employer, appropriate legal bodies (including defence societies), and the GMC on medico-legal matters

Examples and Descriptors

Examples and descriptors for Core Surgical Training

- Reports and rectifies an error if it occurs
- Participates in significant event audits
- Participates in ethics discussions and forums
- Apologises to patient for any failure as soon as an error is recognised
- Understands and describes the local complaints procedure
- Recognises need for honesty in management of complaints
- Learns from errors
- Respects patients' confidentiality and their autonomy
- Understands the Data Protection Act and Freedom of Information Act
- Consults appropriately, including the patient, before sharing patient information
- Participates in decisions about resuscitation status, withholding or withdrawing treatment
- Obtains consent for interventions that he/she is competent to undertake
- Knows the limits of their own professional capabilities

Examples and descriptors for CCT

- Recognises and responds to both system failure and individual error
- Provides timely accurate written responses to complaints when required
- Counsels patients on the need for information distribution within members of the immediate healthcare team
- Seeks patients' consent for disclosure of identifiable information
- Discusses with patients with whom they would like information about their health to be shared
- Understands the importance of the possible need for ethical approval when patient information is to be used for any purpose
- Understands the difference between confidentiality and anonymity
- Knows the process for gaining ethical approval for research
- Is able to assume a full role in making and implementing decisions about resuscitation status and withholding or withdrawing treatment
- Is able to support decision making on behalf of those who are not competent to make decisions about their own care
- Obtains consent for interventions that he/she is competent to undertake, even when there are communication difficulties
- Identifies cases which should be reported to external bodies
- Identifies situations where medical legal issues may be relevant
- Works with external bodies around cases that should be reported to them
- Collaborates with external bodies by preparing and presenting reports as required

Assessment Technique

- MSF and CBD, PBA, DOPS, MRCS, specialty FRCS.

QUALITY ASSURANCE of SURGICAL TRAINING

The General Medical Council (GMC) has overall responsibility for the quality assurance of medical education and training in the UK, as outlined in its Quality Improvement Framework (QIF)[19] but it delegates some responsibility in this respect to the, Medical Royal Colleges and Local Education Providers (LEPs). Deanery equivalent organisations are responsible for the quality management of training programmes and posts and must implement processes to ensure training within their region meets national standards and is implemented in accordance with the GMC-approved curricula. LEPs deliver training and are responsible for its quality control.

As part of its role in the quality management of surgical training, the JCST has developed its own quality assurance strategy based upon its quality indicators, trainee surveys, CCT guidelines and the annual specialty report. For more information on the quality assurance of surgical training, please visit the JCST website[20].

Quality indicators

The JCST, in conjunction with the Schools of Surgery, has developed a series of quality indicators (QIs) in order to assess the quality of surgical training placements in each of the surgical specialties and at core level. The QIs, which are measured through the JCST trainee survey, enable good and poor quality training placements to be identified so appropriate action may be taken. The QIs for each surgical specialty and core surgical training are available to download from the JCST website[21].

JCST trainee survey

The JCST launched a new trainee survey in November 2011, which was developed in conjunction with the Schools of Surgery. The survey is run through the ISCP website and trainees are notified through their ISCP account of when they should complete it. This should be prior to their ARCP. Confirmation of completion of all relevant surveys will be part of the evidence assessed at the trainees' ARCP. For more information on the trainee survey, please visit the JCST website[22].

CCT guidelines

Each SAC has produced a series of guidelines to identify what trainees applying for a CCT will normally be expected to have achieved during their specialty training programme. An equivalent document for core surgical training is in preparation. To access CCT guidelines for each specialty, please visit the JCST website[23].

The JCST submits an Annual Specialty Report (ASR) to the GMC to provide both a national overview of the status of surgical training and an update on any major developments. For more information and to download a copy of the 2012 ASR for surgery please visit the GMC website at: http://www.gmc-uk.org/education/college_reports.asp

[19] GMC (2010) Quality improvement framework. Manchester: GMC
[20] http://www.jcst.org/quality-assurance
[21] http://www.jcst.org/quality-assurance/jcst-quality-indicators-and-trainee-survey
[22] http://www.jcst.org/quality-assurance/jcst-trainee-survey
[23] http://www.jcst.org/quality-assurance/cct-guidelines

Appendix 1

Mandatory DOPS

DOPS type: Surgeon preparation

Guidance notes:

1. Bare below the elbow
2. Use of nail brush
3. Effective antibacterial washing of hands and forearms
4. Use of sterile towels without contamination of hands
5. Donning of gown and gloves assuring surface sterility
6. Professional engagement with gown tying assistant

DOPS type: Administration of local anaesthetic

Guidance notes:

1. Reasoned and appropriate choice of agent, concentration and dose
2. Appropriate choice of block
3. Accurate needle placement
4. Aspiration prior to injection

DOPS type: Preparation of aseptic field

Guidance notes:

1. Checks for absence of relevant allergies
2. Selects appropriate solution
3. Protects mucosa/cornea from exposure to alcohol
4. Thorough, adequate & systematic skin coverage
5. Appropriate choice, placement and fixation of drapes
6. Maintains own sterility throughout

DOPS type: Incision

Guidance notes:

1. Incision planned and marked with appropriate consideration of cosmesis, vascularity and access
2. Checks that team is ready
3. Perpendicular linear incision of dermis with scalpel
4. Continuation through subcutaneous layers using scissors and/or diathermy as appropriate
5. Control of superficial bleeding with diathermy and/or ligation
6. Maintenance of aseptic field throughout

DOPS type: Closure

Guidance notes:

1. Appropriate choice of needle type, suture material and suture method
2. Careful placement of needle with minimal trauma to tissue
3. Appropriate bite and spacing
4. Secure know tying
5. End result satisfactory; layer apposed accurately and without tension

DOPS type: WHO checklist completion

Guidance notes:

1. Ensures sign in completed in anaesthetic room
2. Initiates and leads time out
3. Insists on engagement from whole team if necessary
4. Initiates and leads sign out
5. Takes responsibility for completion of each component
6. Documents process appropriately

Structured clinical supervisors report

Please provide your report in the following categories.

Performance in clinic:

Performance in the provision of acute care:

Performance in theatre:

Other comments:

Appendix 2

Index surgical conditions		
This section sets out those common and important conditions about which a working knowledge of the relevant clinical science and principles of management are essential for all core surgical trainees. The list should inform the section "the clinical method in surgical practice".		
Organ system	**Presentations**	**Conditions**
Abdomen	• Abdominal pain • Abdominal swelling • Change in bowel habit • Gastrointestinal haemorrhage • Dysphagia • Dyspepsia • Jaundice	• Appendicitis • Gastrointestinal malignancy • Inflammatory bowel disease • Diverticular disease • Intestinal obstruction • Adhesions • Abdominal hernias • Peritonitis • Intestinal perforation • Benign oesophageal disease • Peptic ulcer disease • Benign and malignant hepatic, gall bladder and pancreatic disease • Haemorrhoids and perianal disease • Abdominal wall stomata • Abdominal trauma including splenic injury
Breast	• Breast lumps and nipple discharge • Acute Breast pain	• Benign and malignant breast lumps • Mastitis and breast abscess
Vascular	• Chronic and acute limb ischaemia • Aneurysmal disease • Transient ischaemic attacks • Varicose veins • Leg ulceration	• Atherosclerotic arterial disease • Embolic and thrombotic arterial disease • Venous insufficiency • Diabetic ulceration • Vascular injury
Cardiac & respiratory		• Coronary heart disease • Valvular heart disease • Bronchial carcinoma • Obstructive airways disease • Tumours of the chest including carcinoma of the bronchus • Thoracic trauma
Genitourinary	• Loin pain • Haematuria	• Genitourinary malignancy • Urinary calculus disease • Urinary tract infection

	• Lower urinary tract symptoms • Urinary retention • Renal failure • Scrotal swellings • Testicular pain	• Benign prostatic hyperplasia • Obstructive uropathy
Musculo-skeletal	• Acute limb pain and deformity • Chronic joint pain and deformity • Back pain	• Simple fractures and joint dislocations • Fractures around the hip and ankle • Degenerative joint disease • Inflammatory joint disease including bone and joint infection • Compartment syndrome • Bony metastatic malignancy
Skin, head and neck	• Lumps in the neck • Skin lumps • Epistaxis • Upper airway obstruction	• Benign and malignant skin and subcutaneous lesions • Benign and malignant lesions of the mouth and tongue • Burns • Soft tissue trauma and skin loss • Infections related to the nose, ears, throat and face
Neurological	• Headache • Coma	• Intracranial tumour • Traumatic brain injury • Common entrapment neuropathies • Peripheral nerve injury • Spinal nerve root entrapment, spinal cord compression & cauda equina compression
Endocrine	• Acute endocrine crises	• Thyroid and parathyroid disease • Adrenal gland disease • Diabetes
Paediatric	• Abdominal pain • Vomiting • Constipation	• Pyloric disease • Intussusception • Undescended testis, PPV and inguinal hernia • Phimosis

Námsmatsaðferðir í kjarnanámi í skurðlækningum

Stutt lýsing á starfstengdum námsmötum sem verða framkvæmd:

CBD (Case Based Discussion)
CBD er notað til þess að meta dómgreind, ákvarðanartöku og notkun á læknisfræðilegri þekkingu við sjúkdómstilfelli sem námslæknirinn .
Í CBD er sjúkdómstilfellið rætt skipulega og ítarlega af námslækni og matsaðila. Ekki er endilega ætlast til þess að námslæknirinn gefi nákvæma greiningu heldur er matið til að meta hvernig hann notar læknisfræðilega kunnáttu og dómgreind. Matsaðili gefur námslækni endurgjöf og skilar einnig stöðluðu skriflegu mati eða rafrænt (e-portfolio).

CEX (Clinical Evaluation Exercise)
CEX er notað til þess að meta klíníska og faglegri færni námslæknis við daglega klíníska vinnu s.s. á stofugangi, á bráðamóttöku eða á göngudeild.
Matið fer þannig fram að matsaðili fylgist með námslækninum við mismunandi aðstæður svo sem við sögutöku, skoðun, samtöl, skipulag og fleira. Sá sem metur gefur endurgjöf strax að matinu loknu og skilar því einnig á stöðluðu skriflegu mati eða rafrænt (e-portfolio).

PBA (Procedure Based Assessment)
PBA er mat á tæknilegri, skurðlegri og faglegri færni námslæknis við mismunandi þætti skurðaðgerða. Þeir þættir sem eru metnir eiga að vera grunn þættir aðgerða sem miðað er við að sérnámslæknir eigi að kunna að loknu grunnnáminu. Sérnámslæknirinn framkvæmir aðgerðina/hluta aðgerðarinnar og útskýrir hvað hann er að gera og af hverju. Matsaðilinn þarf ekki að þekkja sérnámslækninn, gefur endurgjöf til hans að matinu loknu og skilar einnig stöðluðu rituðu mati. Matsaðilinn fylgist með aðgerðinni og getur gefið ábendingar eða gripið inn í ef þörf er á vegna öryggis sjúklings.

DOPS (Direct Observation of Procedural Skills in Surgery)
DOPS er notað til að meta hæfni námslæknis til að framkvæma inngrip sem tilheyra námsskrá. Inngripin geta verið jafnt stór sem smá en skulu vera í samræmi við kunnáttu og þekkingu viðkomandi. Matið getur átt sér stað á göngudeild, bráðamóttöku (t.d. minni háttar aðgerð eða speglun) eða á skurðstofu (afmarkaður hluti stærri aðgerðar metinn eins og til dæmis að loka skurðsári, sauma þarmatengingu o.s.frv.)

MFS (Multi source feedback, 360° assessment)
Þetta mat gefur upplýsingar um hæfni námslæknis til að starfa í teymi og hér er samstarfsfólk úr öllum stéttum teymis (læknar, hjúkrunarfræðingar, sjúkraliðar, ritarar o.fl) beðnið um endurgjöf á ýmsa hæfnisþætti sérnámslæknis með því að fylla út þar til gert eyðublað.

JCST

Quality Indicators for Surgical Training – Core Surgical Training

Quality Indicator	
1.	Trainees in surgery should be allocated to approved posts commensurate with their level of training and appropriate to the educational opportunities available in that post (particular consideration should be given to the needs of less than fulltime trainees). Due consideration should be given to individual training requirements to minimise competition for educational opportunities.
2.	Trainees in surgery should have at least 2 hours of facilitated formal teaching each week (on average). (For example, locally provided teaching, regional meetings, annual specialty meetings, journal clubs and x-ray meetings).
3.	Trainees in surgery should have the opportunity and study time to complete and present one audit project in every twelve months. (The requirements for audit vary for each surgical specialty. Please refer to the designated specialty for details).
4.	Trainees in surgery should have easy access to educational facilities, including library and IT resources, for personal study, audit and research and their timetables should include an equivalent to half a day per week to allow for this.
5.	Trainees in surgery should be able to access study leave with expenses or funding appropriate to their specialty and level of training.
6.	Trainees in surgery should have the opportunity to complete a minimum of 40 WBAs per year, with an appropriate degree of reflection and feedback, the mix of which will depend upon their specialty and level of training.
7.	Trainees in surgery will be assigned an educational supervisor and will have negotiated a learning agreement within six weeks of commencing each post.
8.	Trainees in surgery should have the opportunity to participate in operative briefings with use of the WHO checklist or equivalent.
9.	Trainees in surgery should have the opportunity to receive simulation training where it supports curriculum delivery.

Quality Indicators for Surgical Training – All Core Surgical Trainees

Quality Indicator	
10.	All trainees in Core Surgery should have the opportunity to attend five consultant supervised sessions of 4 hours each week: for variations in this QI for different specialties, see appendix 1.
11.	All trainees in Core Surgery should have the opportunity to attend at least one consultant ward round each week.
12.	All trainees in Core Surgery should have the opportunity to be involved with the management of patients presenting as an emergency at least once each week (on average), under supervision and appropriate to their level of training.
13.	All trainees in Core Surgery should have the opportunity to complete the following mix of WBAs per year to achieve QI 6 above: A minimum of 10 x CEX A minimum of 10 x CBD A minimum of 10 x DOPS / PBA 1 x MSF The remaining WBAs should be agreed between the AES and the trainee based on individual trainee need.
14.	All trainees in Core Surgery should have the opportunity to attend one MDT meeting, or equivalent, per week where appropriate.

Quality Indicators for Surgical Training – Core Surgical Trainees in Cardiothoracic Surgery Placements

Quality Indicator	
15.	Core trainees in Cardiothoracic Surgery should have the opportunity to perform the supervised taking of long saphenous veins to a safe standard and should be capable of opening the chest by sternotomy or thoracotomy by end of 6 months placement.
16.	Core Trainees on a six month Cardiothoracic Surgery placement should have the opportunity to either attend the annual meeting of the Society of Cardiothoracic Surgeons or the Core Skills Course in Cardiothoracic Surgery.

Quality Indicators for Surgical Training – Core Surgical Trainees in General Surgery Placements

Quality Indicator	
15.	Core trainees in General Surgery should have the opportunity to perform the following procedures to a specified level as defined by the curriculum: Primary abdominal wall hernia; appendicectomy; laparoscopic port placement; abdominal incision/closure for laparotomy; removal of skin lesions; and cutaneous abscess drainage.
16.	Core trainees in General Surgery, when on call for emergencies, should be free of routine ward work.

Quality Indicators for Surgical Training – Core Surgical Trainees in Neurosurgery Placements

Quality Indicator	
15.	Core trainees in Neurosurgery should have the opportunity to develop clinical skills enabling them to assess and manage neurosurgical and neurological emergencies, urgent and elective cases.
16.	Core trainees in Neurosurgery should have the opportunity to develop practical competencies including ward and theatre based practical surgical skills.

Quality Indicators for Surgical Training – Core Surgical Trainees in Oral & Maxillofacial Surgery Placements

Quality Indicator	
15.	Core trainees in OMFS should have the opportunity to perform the following procedures to a specified level as defined by the curriculum: Extraction of teeth; removal of retained roots; biopsy of intra-oral lesions; removal of impacted teeth; debridement of contaminated wound/infected wound/wound with skin loss; and primary closure of skin lacerations of the face and oral tissues where there is no tissue loss or nerve injury.
16.	Trainees in core OMFS placements should have the opportunity to undertake a basic fracture plating course.

Quality Indicators for Surgical Training – Core Surgical Trainees in Otolaryngology Placements

Quality Indicator	
15.	Core trainees in ENT should have the opportunity to perform all the procedures in the Early Years Curriculum to the specified level as defined in the curriculum. The basic minimum is: Insertion of grommets; reduction of nasal fracture; adult tonsillectomy; and paediatric adenotonsillectomy.
16.	Core trainees in ENT should have the opportunity to regularly attend ward rounds dealing with the management of emergency admissions.

Quality Indicators for Surgical Training – Core Surgical Trainees in Plastic Surgery Placements

Quality Indicator	
15.	Core trainees in Plastic Surgery should have the opportunity to perform at least three procedures from each list to the standard stipulated below by the end of Core Surgical Training: a) Performed operations - exploration, repair of extensor tendon; excision of basal cell carcinoma; split skin graft; full thickness skin graft; repair of full thickness lip or eyelid lacerations (any one); debridement of contaminated wound / infected wound / wound with skin loss (any one). b) Performed with assistance or Assisted operations / procedure – perform exploration, repair of flexor tendon with assistance; perform local flap to reconstruct a defect with assistance; burns resuscitation with assistance; perform microsurgical nerve repair with assistance; assist in free tissue transfer surgery; assist in fasciotomy for compartment syndrome.
16.	Core trainees in Plastic Surgery should have the opportunity to attend the Emergency Management of Severe Burns Course (EMSB).

Quality Indicators for Surgical Training – Core Surgical Trainees in Paediatric Surgery Placements

Quality Indicator	
15.	Core trainees in Paediatric Surgery should have the opportunity to perform procedures in the category General Surgery of Childhood (to include circumcision, non-neonatal inguinal herniotomy, ligation of PPV, umbilical hernia repair, appendicectomy) to a specified level as defined by the curriculum.
16.	Core trainees in Paediatric Surgery should have the opportunity to undertake a level 2 Safeguarding or Child Protection course and attend a Basic Paediatric Life Support course.

Quality Indicators for Surgical Training - Core Surgical Trainees in T&O Placements

Quality Indicator	
15.	Core trainees in T&O should have the opportunity to perform the following procedures to a specified level as defined by the curriculum: DHS; Hemiarthroplasty; ankle fracture fixation; and MUAs with application of plaster.
16.	Core trainees in T&O should be allocated to units that ensure supervised attendance at a minimum of 1 fracture/trauma based clinic per week.

Quality Indicators for Surgical Training - Core Surgical Trainees in Urology Placements

Quality Indicator	
15.	Core trainees in Urology should have the opportunity to perform routine cystoscopy with retrograde stent placement and basic inguinoscrotal surgery (hydrocele, epididymal cyst excision, and circumcision) both to level 2 standard as defined by the curriculum.
16.	Core trainees in Urology, trainees should have the opportunity and time to access web based urology educational media.

Quality Indicators for Surgical Training - Core Surgical Trainees in Vascular Surgery Placements

Quality Indicator	
15.	Core trainees in Vascular Surgery should have the opportunity to develop skills in vascular operations including vessel exposure, vascular suturing and control of bleeding. This should include direct access to common arterial and venous procedures.
16.	Core trainees in Vascular Surgery should have the opportunity to attend MDTs and interventional radiology sessions.

Appendix 1

Weekly consultant supervised sessions

Core trainees should have the opportunity to attend five consultant supervised sessions each week (only four of which may be named). These can be broken down as follows for each specialty:

Specialty	Specific requirements for QI 10
Cardiothoracic Surgery	Core trainees in Cardiothoracic Surgery should have the opportunity to attend three operating sessions and at least one outpatient clinic each week.
General Surgery	Core trainees in General Surgery should have the opportunity to undertake three supervised operating sessions (one of which should be an emergency session) and two supervised outpatient clinics each week.
Otolaryngology	Core trainees in ENT surgery should have the opportunity to attend three operating lists (at least one as the principle trainee) and three clinics (including emergency clinics) each week.
OMFS	Core trainees in OMFS should have the opportunity to attend three operating lists and three outpatient clinics each week. These should include emergency lists and clinics.
Neurosurgery	Core trainees in Neurosurgery should have the opportunity to attend at least one consultant led operating session and one outpatient clinic each week.
Paediatric Surgery	Core trainees in Paediatric Surgery should have the opportunity to attend three operating sessions (one of which should be an emergency session) and at least one outpatient clinic each week.
Plastic Surgery	Core trainees in Plastic Surgery should have the opportunity to attend three operating sessions (one of which should be an emergency session) and at least one outpatient clinic each week.
Trauma & Orthopaedics	Core trainees in Trauma & Orthopaedics should have the opportunity to attend three operating sessions (2 x trauma and 1 x elective) and at least one fracture clinic each week.
Urology	Core trainees in Urology should have the opportunity to attend at least three operating sessions, (including flexible cystoscopy, but at least two GA operating lists per week) and at least one outpatient clinic each week.
Vascular Surgery	Core trainees in Vascular Surgery should have the opportunity to attend two vascular lists per week, one of which may be an interventional

	radiology list. They should also have the opportunity to attend one vascular outpatient clinic and one MDT each week.