THE CURRICULUM FRAMEWORK FOR THE SURGICAL CARE PRACTITIONER

FEBRUARY 2014

The development of this document

In order to maintain patient safety and uphold the surgical standards expected by the Royal College of Surgeons of England, collaboration with key surgeons resulted in the development of The Curriculum Framework for the Surgical Care Practitioner in 2006.

This second edition re-affiliates the Royal College of Surgeons of England, patient representative groups and other organisations in order to support the education and training of Surgical Care Practitioners (SCP) as non-medically qualified practitioners within a consultant led extended surgical team. It remains a two-year programme, incorporating both core and specialty knowledge and skills acquisition, which takes place in the clinical setting and will require partnership between the NHS and educational institutions. Eligibility to enter the programme will require demonstration of academic ability and healthcare experience.

The working party was drawn from The Royal College of Surgeons of England Council, related specialty associations, employers of SCP grades and universities involved in running SCP educational programmes. These include the following stakeholders:

- The Royal College of Surgeons of England (RCSEng)
- The Royal College of Obstetricians and Gynaecologists (RCOG)
- The Association for Perioperative Practice (AfPP)
- The Association of Cardiothoracic Surgical Assistants (ACSA)
- Cardiff University
- Edge Hill University
- Plymouth University
- Teesside University
- The Intercollegiate Surgical Curriculum Programme (ISCP)
- The Royal College of Surgeons of England Patient Liaison Group

This document was written by:

Mr Peter Lamont – *The Royal College of Surgeons of England Council*
Mr Mark Ashworth – Consultant Orthopaedic Surgeon, South Devon Healthcare Foundation Trust
Ms Sara Dalby – Surgical Care Practitioner, Aintree University Hospital
Mr Paul Hennessy – Deputy Programme Manager, Surgical Care Practice, School of Healthcare Sciences, Cardiff University
Mrs Maureen Jersby – Senior Lecturer in Adult Nursing, Surgical Care Practitioner Programme Lead, Teesside University
Mr Tobias Rankin – Surgical Care Practitioner and representative from the Association of Cardiothoracic Surgical Assistants (ACSA)

With advice from:

Mr Bill Allum – Surgical Director, Intercollegiate Surgical Curriculum Programme
Ms Tara Bartley – Cardiac Surgery Nurse Practitioner, University Hospitals Birmingham NHS Foundation Trust
Miss Jill Biggins – Previous curriculum author and past Chair of the National Association of Assistants in Surgical Practice (2012 NAASP incorporated into AfPP)
Professor Alan Cameron – Vice President for Clinical Quality, The Royal College of Obstetrics & Gynecology
Mr William Collings–Wells – Surgical Care Practitioner in Neurosurgery, Southampton General Hospital
Mrs Veronica Conboy – Consultant Orthopaedic Surgeon, South Devon Healthcare Foundation Trust
Mrs Linda de Cossart – Previous curriculum author and past Vice President, The Royal College of Surgeons of England
Mr Tim Graham, Consultant Cardiothoracic Surgeon and President–elect, Society for Cardiothoracic Surgery
Mr Gareth Griffiths – *Consultant General Surgeon and Chairman of the Specialty Advisory Committee in General Surgery*
Mrs Jean Hinton – Surgical Care Practitioner Programme Leader, Edge Hill University
Mr Adrian Jones – Surgical Care Practitioner and Trustee, The Association for Perioperative Practice (AfPP)
Mr Michael Lewis, Consultant Cardiothoracic Surgeon, Royal Sussex County Hospital
Mrs Clare Mackenzie – *Vice President for Education, The Royal College of Obstetrics & Gynecology*
Mrs Scarlett McNally – *The Royal College of Surgeons of England Council*
Mrs Lindsay Mitchell – *The Royal College of Surgeons of England Patient Liaison Group*

Mrs Tracey Proctor–Childs – Deputy Head of School (Learning & Teaching), Plymouth University

Mr Mike Reed – Consultant Trauma and Orthopaedic Surgeon, member of the Specialty Advisory Committee in Trauma and Orthopaedic Surgery, and representative of the British Orthopaedic Association

Mr Andrew Robson – Consultant in Otolaryngology, Chairman of the Specialty Advisory Committee in Otolaryngology, and representative of ENT–*UK*

Professor Cliff Shearman – Consultant Vascular Surgeon, Chairman of the Specialty Advisory Committee in Vascular Surgery, and Vascular Society Council Member

Mrs Simone Slawik – Consultant Colorectal Surgeon, University Hospital Aintree

Mr Owen Sparrow – *Chairman of the Specialty Advisory Committee in Neurosurgery and member of the Society of British Neurosurgeons Council*

Ms Mandy Taylor – Surgical Care Practitioner, Southport & Ormskirk Hospital NHS Trust

Mr Tim Terry – *Chairman of the Specialty Advisory Committee in Urology*

Mrs Janet Thatcher – Previous curriculum author and Surgical Care Practitioner Programme Lead, Plymouth University

Professor Phil Turner – *Consultant Trauma and Orthopaedic Surgeon and Trustee of the British Orthopaedic Association*

Mr Rajiv Vohra – *Consultant Vascular Surgeon and member of the Specialty Advisory Committee in Vascular Surgery*

Mrs Julie Young – Surgical Care Practitioner Programme Manager, Cardiff University

The audience for this document

This document is intended for:

- Those wishing to become surgical care practitioners (SCPs)
- Those wishing to offer an educational programme leading to SCP qualifications
- Patients and the lay public, offering definitions of this role, and the standards required for the education and development of an SCP
- Regulators of the profession of surgery in general, and for existing regulatory bodies setting the standards and requirements of the SCP programme
- Educators in other professions, providing an explicit statement of the philosophy and the detailed framework for the education of SCPs
- Any health care provider wishing to employ an SCP.

This document is the main reference document for the curriculum framework for the establishment of standards and quality assurance of trainee SCPs throughout the UK.

Contents

List of Tables and Figures

Prologue

As members of the extended surgical team, Surgical Care Practitioners (SCP) reflect the development of a new professional role of non-medically qualified practitioners who are providing care for patients in an increasingly demanding NHS due to reduced hours of work and shorter rotations within surgery for doctors in training. The SCP will practice under the direction and leadership of a consultant and will have been educated to a standard approved by the respective medical Royal College.

The educational development of SCPs:

- Will enhance the capability of the surgical team and will evolve together within the team
- Will in the clinical environment be the responsibility of a named Consultant surgeon (clinical supervisor) who has the time and resources to train SCPs
- Will not compromise the training of future surgeons
- Will not replace surgeons

SCPs will be employed where necessary as permanent members of the surgical team to encourage continuity of service and standards of care to patients in areas which do not necessarily need to be provided by medically qualified staff. The syllabi provided in Appendix 2 indicate the range of clinical and technical skills which may be carried out by non-medically qualified staff.

Foreword by the RCS President

I am delighted to endorse this revised curriculum for the training of surgical care practitioners (SCPs) on behalf of the Council of the Royal College of Surgeons. The College is keen to improve training standards for the whole surgical team and this curriculum, originally published in 2006, has been the subject of a robust and extensive review exercise conducted by University Academics involved in SCP course delivery, Lead Clinicians and Surgical Specialty Advisory Committee and Association representatives to agree the general framework, principles, assessment and specialty specific syllabi which cover all current and potential exposure of SCP practice.

The role of the surgical care practitioner is now well established within healthcare organisations and has been shown to enhance patient care, maintain surgical services and support surgical training. The role of SCPs has largely expanded since the first SCP curriculum was published in 2006. The scope of practice in particular embraces working in clinics, conducting pre-operative assessment and facilitating the continuity of patient care on the wards.

The Curriculum is approved at a time when the College is looking to a deeper and more structured relationship with wider surgical team members, with professional and training standards being key aspects of this relationship. By approving and publicising the revised SCP Curriculum, the RCS are addressing patient concerns about lack of regulation and professional standards for wider surgical team members and we will continue to engage with the Government and regulatory bodies to ensure these concerns are properly addressed.

The RCS will now only support SCP training as per this curriculum and we would like to invite SCP training bodies to come to work together with the College to align their existing SCP training programmes within this curriculum framework.

I hope this document will be a useful resource for currently practicing and newly trained SCPs, as well as training and educational institutions, organisations employing SCPs and for the Department of Health in setting educational standards for SCP training.

Norman Williams

President

1 Introduction

1.1 The role and status of this document

Over the past three decades, healthcare practitioners other than doctors have increasingly been expanding their roles and scope of practice involving the treatment and care of surgical patients. This has been encouraged and supported by surgeons. The development of the surgical care practitioner (SCP) role was, and continues to be, driven by the need of institutions to maintain surgical services due to the depletion of the surgical workforce.

This development has been driven by the workforce needs of institutions, which, in collaboration with key surgeons has resulted in the development of bespoke programmes of education and training for some practitioners who now not only manage the clinical care of patients but who also assist with technical and operative interventions; a role overlapping with care normally offered by doctors. There has been close affiliation with The Royal College of Surgeons of England and patient representative groups during these developments. However, many new roles are now emerging and there is the potential for confusion and variable standards.

In order to ensure that patient safety is maintained and the surgical standards expected by the College and others are assured, this curriculum project was designated with the specific aim of creating The Curriculum Framework for the Surgical Care Practitioner. This is a two-year post graduate programme leading to qualification at Masters' level, incorporating both core and specialty knowledge and skills acquisition, which will take place in the clinical setting and will require partnership between the NHS and educational institutions. Eligibility to enter the programme will require demonstration of academic ability and healthcare experience.

The Royal College of Surgeons definition of an SCP is based on the original Department of Health (2006:3) definition which drew on the experience of the Department of Health, Welsh Assembly Government and other collaborating parties who piloted the role of SCP in England and Wales:

A registered non-medical practitioner who has completed a Royal College of Surgeons accredited programme (or other previously recognized course) , working in clinical practice as a member of the extended surgical team, who performs surgical intervention, pre-operative care and post-operative care under the direction and supervision of a Consultant surgeon.

The intention of the Royal College of Surgeons is to set a national standard for Surgical Care Practitioner training through publication of this curriculum.

1.2 The key points of the curriculum

The key features of the curriculum are that:

- Clinical practice is the main arena for teaching, learning and assessment
- Educational liaisons between NHS and educational institutions are fostered
- Entrants will be required to demonstrate appropriate previous clinical experience and academic achievement
- The programme will provide opportunities for incremental development to a prescribed standard prior to qualification
- The standards and assessment of technical and operative competence will be equivalent to that expected of a medical practitioner performing the same procedure
- Multidisciplinary learning and practice will be required
- Development of surgeon educators and mentors will be essential
- Continuing development of the curriculum and of regulation will be ongoing

1.3 The role of the surgical care practitioner

The role of the surgical care practitioner is now well established within healthcare organisations and has been shown to enhance patient care, maintain surgical services and support surgical training.

The SCP will be employed as a member of the extended surgical team responsible to the consultant surgeon. The role encompasses the provision of care and appropriate intervention within the perioperative environment, on the wards and in the clinics (usually within a specified surgical specialty). The SCP will always act within their scope of practice, at a predetermined level of supervision (see 4.3.3) and follow agreed guidelines and protocols.

Under the direction of a Consultant surgeon and in conjunction with local guidelines and where applicable taking additional qualifications, SCPs may participate in:

- Clinics, seeing specific pre-operative patients and listing them for surgical procedures following additional training appropriate to local guidelines and requirements
- Pre-operative assessment processes including clinical examination and enhanced recovery education as directed by the surgical team
- Arrangement of appropriate pre and post-operative investigations as part of the multidisciplinary team to enhance patient safety, to facilitate patient-centred care and contribute to the smooth running of the operating lists.
- The consent process following guidelines from the GMC and local trust or healthcare provider. SCP's should have an understanding of the principles of the Mental Capacity Act regarding consent
- Liaison with medical, theatre, ward and clerical staff on relevant issues including theatre lists to support coherent service provision
- The World Health Organisation Safe Surgery checklist
- The preparation of patients for surgery including venepuncture, male and female catheterisation, patient positioning and preparation
- Surgical procedures in the operating theatre as part of the multidisciplinary team for the surgical specialty under the supervision and direction of the operating surgeon*
- Operations, acting as first or second assistant as directed by the supervising surgeon
- The performance of some technical and operative procedures according to their individual Scope of Practice
- The facilitation of continuity of patient care
- Daily ward rounds, making assessments and formulating plans for patients' post-operative care
- Writing of operation notes and ward round note taking
- Post-operative care, including wound assessment, initial treatment and identification of surgical problems and complications
- The identification of acute deterioration of patients and have knowledge of national early warning scores
- Provision of support to on-call and emergency services
- The evaluation of care, including the discharge process and follow-up care arrangements for surgical patients
- A variety of outpatient activities, including seeing patients as and when they are deemed competent to do so
- Facilitation of the training of trainee surgeons by supporting a training session or providing delegated care to a patient while the supervising surgeon is conducting a training session
- Research, development, education and audit within their surgical department
- The prescription of medications appropriate to their individual specialty (if deemed necessary by the consultant and following appropriate training)

*The operating surgeon may be a non-consultant medically qualified member of the surgical team (e.g. a Specialty Trainee or suitably qualified SAS grade) who has been delegated the role by a Consultant surgeon.

1.4 Accountability and Supervision

SCPs are bound (in common with other individuals) by civil, criminal, employer and professional accountability in the work place. It is the responsibility of an SCP to understand what this entails (see figure 1).

On a day by day basis SCPs will work under the direction of the operating surgeon and as a member of the extended surgical team. In this role the SCP (along with all other members of the team) will be clinically responsible to the Consultant surgeon for their clinical activities and with the rest of the surgical team aim to provide the best care for patients.

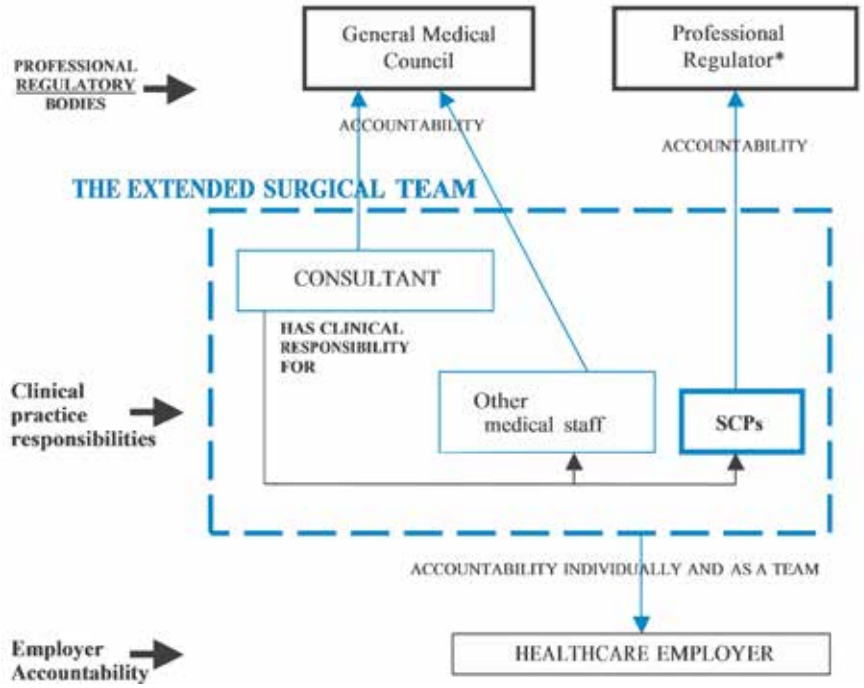

Figure 1 The relationship of regulation, accountability and responsibility of SCPs.

* At present there is no national regulator for SCPs, but individual SCPs are regulated either by the Nursing and Midwifery Council, the Health and Care Professions Council, or the General Dental Council.

1.4.1 Regulation of Surgical Care Practitioners

Regulation is a safeguard for the public and employers. Statutory regulation has four functions which are:

1. To establish and maintain standards of competence, ethics and conduct

2. To establish and maintain standards for education and training

3. Maintenance of a register for those who meet the defined standards

4. To monitor standards and act via a defined process when the established standards are not met by registrants.

The SCP is expected to be a regulated role which requires the practitioner to meet the statutory registration requirements before practising within the healthcare environment. SCPs are also accountable for their own practice (see figure 1) and subject to the professional requirements of the regulator. These standards include their professional conduct (including both moral and ethical issues) and their performance, proficiency and professional development.

1.5 Scope of practice

The scope of practice for the trainee SCP is defined by the Curriculum Framework for the SCP. The extent and span of clinical duties during the two year training period leading to qualification are defined in two sections, the core skills and knowledge found in Appendix 1 and specialty skills and knowledge found in Appendix 2.

The scope will be supported by a specific education and training programme which addresses both clinical skills and the underpinning knowledge pertinent to the trainee SCP and which is necessary to attain prior to completion of training.

The SCP undertakes certain clinical activities that were previously the domain of doctors. These activities, based on principles of practice rather than tasks, require the authorisation of the employer and the successful completion of a defined programme of study, leading to an award within the National Framework for Higher Education Qualifications (as defined by the Quality Assurance Agency).

The trainee SCP must acknowledge any limitations in their knowledge and skills and must not perform clinical activities they do not feel skilled or competent to perform. They will develop professional judgment to know when and when not to undertake procedures.

The principles of the Scope of Practice are based on the Good Medical Practice guidelines from the General Medical Council (GMC, 2013). The Scope of Practice for an SCP is based on knowledge, skills, responsibility and accountability. However, all SCPs must act within the formal Code of Conduct of their statutory regulator and professional association.

Trainee SCPs are required to practice within the structure of the curriculum framework obtaining the appropriate level of supervision determined by assessment of their competence.

1.6 Validation, accreditation and evaluation of the programme

Validation, annual monitoring and periodic review are key aspects of quality assurance and must be carried out by those with appropriate knowledge and authority.

1.6.1 Validation and accreditation

The process of validation of programmes leading to specified awards is normally carried out by the Higher Education Institution (HEI), but may involve representatives of the professional/regulating body which applies to the specific course.

The accreditation of a programme may occur at the time of validation or at a time of review and will thus involve a joint meeting between the university and the accrediting professional body.

Any Surgical Care Practitioner programme which is delivered in the United Kingdom may apply for accreditation from the Royal College of Surgeons of England. The Royal College of Surgeons of England Quality Assurance and Accreditation Committee will have the authority to recommend accreditation of programmes to the College Council for approval. The Royal College of Surgeons of England will accredit courses in gynaecology on behalf of the Royal College of Obstetricians and Gynaecologists.

1.6.2 Monitoring and review

The evaluation of a programme, or 'annual monitoring' (in university terms), occurs regularly each year, leading to 'periodic review' and formal re-validation, normally at three yearly intervals following initial validation.

The professional accrediting body should receive annually copies of the Annual Monitoring Report and periodically the Review Reports, as part of the accreditation requirements. The professional or regulatory body may advise on any changes proposed and may assist in preparing the university for the next (re)validation and accreditation event.

Monitoring and evaluation should take account of as wide a range of perspectives as possible. It should cover all aspects of the programme and reports should be sought both orally and in writing. The evaluation should be focused on the aims and expected learning outcomes of the programme, and the use and effectiveness of the opportunities provided in order for this to be achieved. The evaluation should be informed by both qualitative and quantitative information.

1.6.3 Principles of quality assurance

The quality assurance of programmes offered by healthcare organisations and their collaborating higher education institutions must meet the criteria set by the Royal College of Surgeons of England Quality Assurance and Accreditation Committee.

The principles of these requirements are that:

- There is an established agreement between the higher education institution and the healthcare provider in the clinical setting
- The collaboration has in place appropriate human resources (HR) and contractual procedures
- There are appropriate recruitment and admission policies
- The collaboration can provide the appropriate educational opportunities
- The collaboration encourages multidisciplinary teaching and learning
- The requirements of the Curriculum Framework are included
- There is an ongoing process of evaluation of the education programme
- There are appropriate teaching and learning resources (which may link with other programmes)
- There is clear leadership of the programme both educationally and managerially
- There is ongoing development of the faculty.
- There is commitment and action in research and development of the programme.
- There is an effective review and appeal procedures in place at the HEI

1.7 Equality and Diversity

In line with the Equality Act (2010) educational providers / universities and clinical placements must have equal opportunities and anti-discriminatory policies in place for both students and trainers, indicating how these will be implemented and monitored. They must employ a range of learning and teaching methods that enable the rights and needs of patients and colleagues to be respected.

2 Professional and educational values underpinning the philosophy of the curriculum

2.1 Introduction

Values underpin a trainee SCP's conduct and provide the foundations upon which this curriculum is built. This curriculum emphasises the importance of professional and educational values. They are principles to be considered carefully by those in surgical practice and by those wishing to develop in this professional role. These principles serve to prepare individuals for, and support them in, their practice. They link members of the extended surgical team together as they care for patients. Professional values are influenced by developing traditions and recognise the context within which practice is taking place.

2.2 Professional values for the surgical care practitioner

The professional values that influence SCPs relate to obligations to patients, to professional practice and to professional development.

2.2.1 Professional values

Professional obligations to patients are:

- A commitment to a partnership of care
- A recognition of the whole person within their social, ethical and cultural context
- The honoring of the relationship of trust with the patient with its concomitant moraland ethical responsibilities
- A dedication to clear, honest and empathetic communication
- To provide care closer to the patient's home, where possible such as outreach, remote or virtual follow-up

Professional practice and professional development which involves:

1. A commitment to:

- Clinical and technical excellence
- A professional life & the responsibilities that this implies, especially those of
- accountability
- Lifelong learning and professional self-development together with development of the members of the surgical team
- The development of non-technical skills
- Continuous questioning, deliberation and reflection in developing new professional knowledge and understanding
- Clinical practice commensurate with agreed competencies

2. A recognition that:

- SCPs assist with interventions and operations on patients as a necessary part of their care and, in that respect, differ from many other non-medically qualified practitioners
- SCPs assist with the provision of pre and post-operative care for patients
- The dynamic nature of professional knowledge and the ability to work in this
- environment requires the recognition of personal limits
- The practice of surgery draws upon both the knowledge and use of science as well as sound professional artistry
- The SCP will work in close cooperation with their surgical team, but at times and only where competent to do so, may provide a service remote from their supervising team

3. The ability to:

- Work with a degree of autonomy within the parameters of the surgical team
- Engage in the development of the professional group as a whole by sharing knowledge and understanding to influence and change practice
- Respect and work in collaboration with colleagues
- Lead where appropriate
- Focus on the salient features of practice
- Exercise wisdom
- Demonstrate sensitivity to the moral and ethical issues implicit in surgical practice in contemporary society
- Exercise clinical reasoning and develop professional judgment in their practice
- Provide support to other team members in their endeavours to take advantage of learning opportunities.

2.3 Educational values for the trainee surgical care practitioner

2.3.1 Educational values supporting learning in a surgical context

The educational values that have informed the design of this curriculum framework have drawn on the experience of training over many years in the training of allied healthcare professionals.

The values are shaped by two major considerations:

- The complexities involved in the nature of surgical practice itself and the tacit knowledge and understanding of those who teach in this setting
- The defining characteristics of the educational setting in which trainee SCPs both learn and practice at the same time.

Informed by:

- A vision for the future practice of SCPs in NHS workforce planning

2.3.2 Educational values underpinning this Curriculum Framework

These educational values are:

- The establishment of a learning partnership between the Consultant surgeon (and team) and the trainee SCP within the surgical team
- That trainee SCPs examine their own professional and personal values
- A recognition that clinical practice is the key arena in which trainee SCP education takes place and is therefore to be valued
- That trainee SCPs develop clinical skills through practice and a thorough knowledge of the theory behind that practice
- That trainee SCPs understand professional judgment within the context of modern surgical care
- That trainee SCPs understand both moral and ethical elements relevant to surgery
- That trainee SCPs develop reflective practice and self-motivation in the learning process
- That trainee SCPs understand the importance of audit and Clinical Governance. In particular they may learn how a non-judgemental analysis of outcomes may focus attention to improvements in care and how to use data to influence the practice of others
- That trainee SCPs understand the role of guidelines and protocols, but also the limitations of these
- The importance of lifelong learning, continuous professional development and self-assessment

- The importance of learning to communicate with a range of different people
- The importance of discussion in the process of teaching and learning
- The importance of research into practice and the development of good practice
- The importance of good evaluation to allow development and refinement of the curriculum

3 The Curriculum Framework

3.1 Introduction

This Curriculum Framework is intended to guide the education and development of trainee SCPs in the clinical setting, where not only the teaching and learning is carried out in practice, but also their assessment.

Academic staff and trainers should use this framework to plan the education of the trainee SCP and maximise the educational opportunities in each clinical setting. The trainee SCP can then develop their clinical performance in parallel with their understanding in an appropriate context.

3.2 The principles of teaching and learning

The trainee SCP will need to learn how to:

- Gain new advanced skills within the practice setting
- Carry out specialist and core surgical and medical practices
- Bring formal core and specialist medical and surgical theory into a relationship with surgical practice
- Think about and utilise the complex relationship of theory and practice to support good practice
- Use reflection and deliberation to improve and develop practice
- Interrelate appropriately and in a variety of ways with all others in the clinical setting
- Theorise during practice (i.e. how to, during a particular practical incident, formulate new ways of thinking and doing, which go beyond what the text book can offer)
- Theorise practice itself (i.e. how to recognise, in a particular piece of practice, the principles, assumptions, beliefs and theories, which actually shaped that practice).

All these procedural matters will, in turn, determine the formal theoretical knowledge of medicine and surgery to be acquired by the trainee SCP. The trainee SCP will be responsible for acquiring some theoretical knowledge through self-directed learning.

The Curriculum Framework assumes that the trainee SCPs education is influenced by:

- The professional and educational values espoused by the learner and their teacher
- Sound educational principles for teaching and learning in clinical settings
- The previous knowledge and experience of the trainee SCP, including their knowledge of themselves as learners in practical settings
- The particular expertise of the people they work with, particularly Consultant surgeons
- The needs of practice in the specialty – in all elective and clinical areas including, but not limited to, clinics, wards and theatres
- The ability to utilise the appropriate evidence base in clinical decision making and practice
- The need to learn to theorise during practice
- The need to learn to theorise practice itself
- The educational quality of the professional conversation between the surgeon educator and the trainee SCP
- The quality of the insights gained via reflection on, and deliberation about, practice
- The possibilities for practical work and its assessment within the particular attachment
- The need for summative assessment.

3.2.1 Learning partnerships

The establishment of a learning partnership between the clinical supervisor* and the trainee SCP that moves beyond the traditional approach of apprenticeship is essential to engaging both parties more thoughtfully in the processes of teaching and learning. This in turn should provide the basis for more motivated and better directed education.

Key issues for the clinical supervisor are:

- An understanding of educational principles and values
- The role of professional judgement in educational matters
- The intentions and processes of assessment
- The ability to maximise learning opportunities

The clinical supervisor is responsible for day-to-day supervision in the workplace. Clinical supervision involves being available, looking over the shoulder of the trainee, teaching on-the-job with developmental conversations, regular feedback and the provision of a rapid response to issues as they arise. The clinical supervisor must be able to tailor the level of supervision to the competence, confidence and experience of the trainee.

This Curriculum Framework supports the belief that the following principles are essential in shaping the education of the trainee SCP:

- Observation in clinical settings directed so that trainee SCPs learn to see, analyse and interpret all that occurs
- Action (rather than just observation) in the practical setting which is essential to foster learning
- Ongoing dialogue in the clinical setting between educator, clinical supervisor and trainee SCP, which is a vital part of the learning process
- Investigation of examples of professional judgement in both medical and educational practice
- Problem-solving by the trainee SCP in a range of different practical activities, using critical thinking, creativity and improvisation
- Developing the use of the processes of deliberation and reflection, and encouraging self-knowledge and self-appraisal.
- The involvement of patients in the shaping of learning and assessment

* clinical supervisors may be a non-consultant medically qualified member of the surgical team (e.g. a Specialty Trainee or suitably qualified SAS grade) who has been delegated responsibility for an identified trainee SCP by a Consultant surgeon.

3.3 The aims and outcomes of the training programme

3.3.1 Aims of the programme

The programme will enable the trainee SCP to:

- Develop both their clinical competence and their confidence in caring for patients within a multi-disciplinary/multi-professional team
- Offer care to patients from their initial presentation
- To develop reflective practice

3.3.2 Outcomes of the programme

On the completion of the programme the trainee SCP will have demonstrated:

- An understanding of the responsibilities and accountability of being a SCP and the values that underpin this
- The professional values and academic standard needed to be a SCP (see 2.2 and 3.6.2)
- A range of theoretical and practical knowledge related to their core and specialty practice (see Appendices 1 and 2)
- The development of professional judgement
- Technical and operative skills and their ongoing development

- An understanding of their role within the extended surgical team and the multi-professional team
- The understanding and use of reflective practice, deliberation and other educational processes appropriate for examining and developing their own professional practice

3.4 Intentions for each part of the surgical care practitioner programme

3.4.1 Progression through the programme

The clinical supervisor and the trainee SCP will need to review, at the beginning of the programme and following any formative or summative assessment, the further aims to be achieved by the trainee SCP. This will be guided by:

- The requirements of the core syllabus
- The requirements of the relevant specialty syllabus
- The trainee SCP's knowledge and existing capability with respect to the core syllabus
- The trainee SCP's knowledge and existing capability with respect to the relevant specialty syllabus
- The local circumstances of the clinical environment.

3.4.2 Core surgery – clinical milestones (see Appendix 1)

Clinical milestones are intended as a guide for clinical supervisors and trainee SCPs to assist their understanding of what needs to be achieved, who may be available to support this and how it will inform assessment. It aims to support the trainee SCP in safe, accurate and consistent practice. They are not 'tablets of stone' to be enforced by a supervisor or mentor.

3.5 Recommended length of the programme

3.5.1 Two-year surgical care practitioner programme overview

The recommended length of the SCP programme is two years comprising both a taught element and a practical element (see Table 1). This is based on the need for a minimum of 2200 hours over the two years in combined clinical activities in and out of the theatre environment. A minimum of 1100 hours is spent in the theatre environment. For the entry criteria to the programme, see section 3.6.

The programme periods will provide time for regular progress review meetings with clinical and educational supervisors. These hours do not include study leave, annual leave or time for audit and research. However, it should be recognised that these are essential components of the complete programme. The trainee SCP's job plan therefore, should incorporate these points.

The two-year programme represents the minimum period of training, based on feedback from the SCP programme pilot sites. It provides for the understanding that some trainee SCPs may need targeted training, which may extend this time. It is not anticipated that the programme will take longer than four years.

It is appreciated that a number of trainee SCPs may take a career break. This requirement will need to be negotiated on an individual basis with both the employer and the education institution. This should be done by beginning discussions with the clinical supervisor and must be agreed with the education institution.

Guiding principles throughout programme	Year 1			Year 2			
Focused on learning in the clinical setting Explicit principles and standards Rigorous processes of teaching, learning and assessment Explicit principles and standards Specific summative assessment points based on demonstration of competence (at least 12 months indicated in blue)	Periodic formative and/or summative theoretical assessment	Ongoing Technical and Clinical Assessment	CORE SYLLABUS Combined learning In core and specialty aspects throughout the course	Periodic formative and/or summative theoretical assessment	Ongoing Technical and Clinical Assessment	CORE SYLLABUS	SPECIALTY SYLLABUS Combined learning In core and specialty aspects throughout the course
	Summative assessment and progression point		Progress to year 2	Summative assessment and completion point		Complete programme	

Table 1 Two year surgical care practitioner programme map 3.6 Criteria for entry to the programme

3.6 Criteria for entry to the programme

3.6.1 Education institutions

Education institutions will determine their own specific academic requirements for entry onto their programme leading to the qualification of SCP. An essential requirement will be evidence of an appropriate academic and clinical background (see 3.6.3 and 3.6.5).

The Royal College of Surgeons of England Quality Assurance Committee will be involved in the process of accrediting SCP programmes in England, in association with other relevant medical royal colleges and appropriate professional associations.

3.6.2 Minimum academic standard

The minimum academic standard for the SCP programme is a two year programme, normally undertaken part time, consisting of at least 120 credits at Masters level or equivalent.

3.6.3 Entry requirements

The minimum entry requirements for entry to a recognised SCP Programme are:

- Evidence of an ability to study at Level 7 or above (i.e at Master's level)
- Registration as a healthcare professional
- Evidence of at least 18 months post registration experience

In addition, the candidate must demonstrate:

- Commitment to patient care and patient safety
- Understanding of the relationships within the multidisciplinary team especially with respect to the changing role of surgery
- Recognition of the role and responsibilities of being a trainee SCP
- Understanding of the programme with particular respect to their own work and educational experience
- Aptitude for both clinical and operative practice
- Recognition that educational as well as clinical development will be required.

3.6.4 Accreditation of prior experiential learning

Accreditation of prior experiential learning will be dependent upon the local Higher Education Institution requirements.

4 Assessment and Supervision of Progression through Training

4.1 Competence & Performance

For the purposes of this document competence is defined within a professional context and is the broad ability with which a professional person is able to practice to the required standards in a range of situations. Inherent in this definition is the recognition of the development of the skills and knowledge base as well as professional and clinical judgement throughout the programme of training.

Competence should therefore be viewed as a principle that enables the trainee SCP to practice successfully as a consequence of the flexible application of skills and knowledge.

Performance is the repeated and consistent demonstration of this competence, and is necessary in order for progression through identified waypoints within training.

Because of the nature of the role of SCPs within the surgical team, there must be an equivalent standard of assessment for both doctors and trainee and qualified SCPs performing similar procedures. To this end, the systems of assessment employed should mirror the existing ISCP framework to ensure commonality and consistency in the approach to, and conduct of assessment. Consequently, assessment of performance will be informed by the 4 ISCP domains of Knowledge, Judgement, Technique & Professional. See table 2 for details.

Programmes developed out of this curriculum framework must therefore provide comparable opportunities for teaching, learning and assessment within the clinical setting by appropriately qualified supervisors.

4.2 Assessment & Assessment Systems

4.2.1 Definitions

For the purposes of consistency between surgical trainees and trainee SCPs, the following definitions, from the GMC Standards for curricula and assessment systems (2010) are utilised within this document:

1. Assessment

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

2. Assessment system

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.

3. Formative Assessment

The use of assessment for learning. Based on supervised learning events (SLEs), which may or may not be planned, with structured feedback that enables the trainee to reflect on, and develop their practise. SLEs are useful to assess and direct progress in the development of skills, knowledge and behaviours.

4. Summative Assessment

The assessment of learning. A planned series of events, integral to the curriculum that serve as assessments of performance (AoPs) appropriate to the trainee's stage of training.

Further information on Formative and Summative Assessments is detailed in Sections 5.3 and 5.4.

4.2.2 Assessment system

The purpose of the assessment system is twofold:

- To provide the systematic and comprehensive feedback necessary to ensure trainee SCP development and full and appropriate use of the learning cycle. This can include both formative and summative assessments being used as a feed-forward mechanism for future practice and development.
- To determine whether the trainee SCP has met the standards of competence and performance required at specific progression points in the curriculum

The availability of a range of tools will ensure that the most appropriate method(s) of assessment is/are used, relevant to the content and purpose of the specific element of the curriculum (GMC 2010). The use of differing tools of assessment within both

formative and summative methods provides a mechanism for triangulation of assessment thereby enhancing the rigor and reliability of the system and validity of outcome.

The following are examples of appropriate workplace -based assessment tools;

Table 2: Tools, domains and types of assessment

Assessment tool	ISCP domain	Type of assessment
Case Based Discussion (CBD)	Knowledge, Judgement	Formative
Mini-Clinical Evaluation Exercise (Mini-CEX)	Knowledge, Judgement, Technique, Professional	Formative
Mini-Peer Assessment Tool (Mini-PAT)	Knowledge, Judgement, Technique, Professional	Formative
Direct Observation of Procedural Skills in Surgery (Surgical DOPS.)	Knowledge, Judgement, Technique	Formative
Procedure Based Assessment (PBA)	Knowledge, Judgement, Technique, Professional	Formative
Multi -source Feedback (MSF)	Knowledge, Judgement, Technique, Professional	Formative
Acute Care Assessment Tool (ACAT)	Knowledge, Judgement, Professional	Formative

(Adapted from content of ISCP/GMP Blueprint 2010, & GMC Learning & assessment in the clinical environment 2012)

4.2.3 Assessment

Assessment is a fundamental element of all teaching and learning and therefore must be designed to enable an accurate measurement of trainee performance. Also, assessment should be aligned to ensure that the aims and outcomes of the programme are met.

In setting targets or objectives for assessment it is important that SMART criteria are applied. These criteria require that targets/objectives are:

- Specific
- Measurable
- Achievable
- Relevant
- Time framed

Assessments should be viewed as integral to clinical practice and not divorced from it. Workplace -based assessment (WBA), will provide a significant element of the evidence of performance that trainee SCPs will need to maintain as part of their Portfolio.

Assessment, in order to be useful and therefore effective, must provide systematic and comprehensive feedback. This feedback should be provided in such a form and manner to ensure that it is readily understood by the trainee and that the development of the trainee can be supported appropriately.

The increased use of formative assessment within programmes will help to identify those trainees in need of additional support at an early stage enabling remedial action to be taken by both clinical supervisors and trainees before the summative assessment of practice takes place.

Records of formative and summative assessments undertaken will form the basis of a portfolio of evidence that trainee SCPs will be required to maintain. This portfolio will guide and inform the assessment process and will be supported by the clinical log book maintained by the trainee over the duration of the programme.

4.2.4 Frequency of assessment:

In line with the ISCP/GMC Blueprint (2010), and the need for consistency and parity in assessment of those undertaking surgical roles, the table below is suggested as the minimum frequency of workplace-based assessments for trainee SCPs, utilizing a range of different assessment methods.

Table 3: Suggested methods & frequency of assessment

Assessment Method	Frequency
CBD	1 every two months (6p/a)
Mini-CEX	1 every two months (6p/a)
Mini-PAT	1 per year
Surgical DOPS	1 per month; with each index procedure at least twice to demonstrate progression
PBA	
ACAT	1 every two months (6p/a)
Learning agreement & clinical supervisors report	1 per placement; to incorporate initial planning & objective setting, mid-placement review, Final review
Review of Competence	3 per year
Progression Review	1 per year

[Adapted from ISCP/GMC Blueprint 2010]

4.3 Factors guiding assessment

Assessment will take account of professional and education values, attitudes, knowledge, judgement and the application of appropriate technique in clinical and surgical skills as per the ISCP Blueprint (2010).

It will be informed by the:

- Clinical supervisor's professional judgement
- Feedback from Patients
- Recognition that the soundness of the assessment is related to the rigor with which the multiple perspectives are collected, recorded and utilised
- Purpose and the criteria of the assessment being clearly understood by all parties
- Need to ensure that assessment provides a quality learning experience for both the trainee SCP and the clinical supervisor
- Need to ensure that all learning opportunities are well utilised
- Need for assessment to develop through and across the programme,
- Need to engage the trainee SCP in reflective self-assessment throughout the process
- Need for the trainee SCP to satisfy the required standard by the end of each negotiated learning period, and the end of the programme
- Need to ensure that there are no surprises for the trainee SCP at the summative and final assessment of performance through effective use of formative assessments
- Need to ensure that the summative assessment processes for SCPs are consistent with the ISCP framework and GMC standards for curricula and assessment systems.

4.3.1 Multiple perspectives:

In all assessments whether formative or summative, information from multiple perspectives on the trainee SCP's progress will need to be considered to ensure a full and accurate assessment decision is reached

Throughout, account must be taken of:

- The visible performance of the trainee SCP
- How the trainee SCP has related theory to practice
- The trainee SCP's ability to articulate understanding of the values underpinning their clinical performance
- The way the trainee SCP's ideas, beliefs, values and assumptions have influenced their performance
- The impact of the trainee SCP's performance on all others involved
- How the trainee SCP has used the learning opportunities provided
- The trainee SCP's knowledge of self

» How much input there has been from the clinical supervisor
» How the resulting judgements compare with those made of the trainee SCP by others

It is important to recognise that trainee SCPs learn at different speeds and a trainee SCP who is a good performer naturally, may not have used the new opportunities to learn, but a trainee SCP who has struggled a little more, may have demonstrably learnt from the opportunities available. Recognising these different styles of learning will enable the clinical supervisor to tailor the opportunities available to the trainee SCP accordingly. This disparity may also need to be considered when measuring performance against specified and/or agreed milestones.

4.3.2 Assessment of Professional judgement

In addition to the descriptors identified within the ISCP domains, professional judgement in this context refers to the trainee SCP demonstrating their ability to:

» Recognise the changing nature of supervision derived from the surgeon leading the team
» Determine appropriate responsibilities within the team
» Negotiate sharing clinical commitments with other team members
» Recognise situations beyond their scope of practice and act appropriately to ensure the safety of the patient in their care, and also the safety of the wider multidisciplinary team
» Appraise and utilise all appropriate and available sources of information and data to support actions
» Respect and understand the patient's viewpoint.

4.3.3 Determining levels of supervision required

For SCPs in training, the level descriptor (see table 4) should be used to inform the assessment of progress in any given situation. This can be seen as a 'ladder of supervision' with step-wise progression from full supervision to responsible action.

Supervisors and trainees should use the descriptors, mapped against the ISCP domains of Knowledge, Judgement, Technique & Professional as indicated in table 4 (below), to determine what aspects of practice need to be developed in order to achieve each step on the ladder of supervision. In so doing these descriptors will establish the appropriate level of supervision the trainee requires for the given supervised learning event.

Each level of supervision encompasses three perspectives:

» Assessment of knowledge and reasoning
» Performance
» Personal and professional awareness.

The clinical supervisor must be satisfied that a trainee has fulfilled all descriptors within these three perspectives in order to be deemed to be performing at that level.

Table 4 Levels of competence and practice of trainee SCPs (with mapping against ISCP domains)

Criteria	Knowledge/Reasoning	Performance	Personal & Professional awareness
ISCP domain(s)	Knowledge, Judgement Professional	Judgement Technique Professional	Judgement Professional
Progression point at end of year 1	Applies accurate knowledge to practice Has some awareness of alternatives Begins to make judgements based on contemporary evidence.	Demonstrates safe, and accurate practice Requires occasional direction or support Begins to initiate appropriate actions Identifies priorities with minimal prompting.	Acts, intervenes, and behaves in a way generally appropriate for the patient and situation Gives explanations usually at an appropriate and coherent level Identifies the need for assistance.
Level of supervision required	1 Supervising surgeon in the immediate vicinity		
Progression point at exit of training	Applies evidence based knowledge Demonstrates awareness of alternatives Gives sound rationale for actions Makes judgements and decisions based on contemporary evidence	Acts, intervenes, and behaves in a way generally appropriate for the patient and situation Gives explanations usually at an appropriate and coherent level Identifies the need for assistance.	Demonstrates conscious, deliberate planning Acts, intervenes and behaves in a way appropriate to the patient and situation Gives coherent and appropriate information.
Level of supervision required	2 Tasks undertaken as delegated by the operating surgeon who may not be in the immediate vicinity		

*The operating surgeon may be a non-consultant medically qualified member of the surgical team (e.g. a Specialty Trainee or suitably qualified SAS grade) who has been delegated the role by a Consultant surgeon.

Table 5 Levels for theoretical knowledge and clinical skills within the Scope of Practice

Level	Theoretical knowledge	Non-operative clinical skills	Technical and operative skills
1	Trainee SCP has demonstrated progress from needing to be told the principles and theoretical knowledge underpinning their practice to knowing and understanding them.	Trainee SCP has demonstrated their clinical skills and underpinning knowledge to assess and manage patients pre and post-operatively with the supervising Consultant surgeon in the immediate vicinity.	Trainee SCP has demonstrated their ability to assist fully a surgeon* during a surgical procedure.
2	Trainee SCP has demonstrated their ability to utilise and critique their knowledge and understanding of the principles underpinning their clinical practice.	Trainee SCP has demonstrated their ability and competence to undertake and critique, in the pre and post-operative environment, tasks delegated to them by the operating surgeon* who is in the same clinical environment.	Trainee SCP has demonstrated their ability and competence to undertake a technical procedure delegated to them by the operating surgeon* who remains within the theatre suite.

* The operating surgeon may be a non-consultant medically qualified member of the surgical team (e.g. a Specialty Trainee or suitably qualified SAS grade) who has been delegated the role by a Consultant surgeon.

At the point of qualification, the trainee SCP will be required to be functioning and supervised at level 2.

5 The Assessment of Progression and Completion

5.1 Context of assessment

Assessment in clinical practice and theory are linked to each other and are a fundamental part of the programme. Clinical assessment will be carried out in clinical practice and will take the form of competency assessment. The nature of theoretical assessment will be determined by the educational institution delivering the programme but will enable the practitioner to demonstrate that they have attained appropriate theoretical knowledge to underpin safe, accurate and consistent practice, and they have met the outcomes of this curriculum.

Formative assessment will be ongoing between the trainee, their supervisor and other key members of the multidisciplinary surgical team. Clearly agreed and recorded developmental plans between the supervisor and the trainee will be essential to good assessment. A disciplined approach will underpin the rigour of the process. All formal meetings will be required to be recorded and stored by the trainee, signed by the supervisors and placed in the education portfolio.

5.1.1 Key personnel involved in the assessment process

The quality of the assessment process requires a range of personnel to be involved in the formative and summative assessment of the trainee SCP. It is acknowledged that the trainee SCP themselves is a vital component of this assessment. See section 1.3 for a detailed explanation of the SCP role.

The key personnel responsible for the ongoing assessment process are:

- RCS approved clinical supervisor (see criteria in 5.2.1)
- Mentor – senior hospital professional (registered professional with suitable background to support trainee SCP)

- Educational supervisor – linked with higher education institution
- Teachers – supervisors, mentors, and other members of the multi-disciplinary team who may be anaesthetists, qualified nurses, qualified ODPs or trainee surgeons.

5.1.2 Mentor Support

It is recognised that the contribution of the supervisory team in relation to providing supervision, support and opportunities to develop mastery and competence in a specialist area of advanced practice is crucial. Support for key personnel should be provided by the educational institute delivering the programme in the form of workshops, supportive literature and regular dialogue.

5.2 Characteristics, roles and responsibilities of the key personnel

5.2.1 Consultant Surgeon supervisor

The essential characteristics are:

- Be a current Fellow of a Royal College of Surgeons
- Be recognised by their LETB or the GMC as an Assigned Educational Supervisor or Clinical Supervisor

Consultant Surgeon Supervisors have a responsibility to:

- Attend a supervisor's workshop to ensure they have a clear and shared understanding of the competencies to be achieved and expected performance in the clinical environment at each stage of learning.
- Ensure opportunities for the trainee's personal and professional development are available
- Be cognisant of the assessment documents and the SCP portfolio of evidence
- Ensure the assessment documents and portfolio are discussed with the trainee SCP during the first week of the course
- Ensure that time is identified for initial interviews in order to assess learning needs and develop a learning contract
- Identify and provide access to learning opportunities and resources to assist the trainee SCP to reflect on experiences, to facilitate learning in and from practice, and to ensure that the learning experience is a planned process
- Teach the trainee within the clinical environment as appropriate to the stage of progression within the programme
- Liaise with the mentor for the assessment of competence in related practice processes
- Collate feedback from all learning events to set goals and support student progression.

- Provide a learning environment that allows students to plan their workplace based assessments (WBA) and provide constructive feedback to improve future performance.
- Ensure that the trainee has sufficient opportunity, in a safe environment, to be taught, and to learn, the required skills
- Take the lead and make the final decision in the assessment of the trainee SCP including the completion of documentation
- Co-ordinate the results of the assessment of practice reports to make a final and informed judgment of professional competence
- Provide advice and support and, where necessary, address specific needs such as difficulties in progression

5.2.2 Mentor

The essential characteristics for mentors (as described by the NMC and HCPC) are:

- An experienced professionally qualified practitioner (e.g. senior nurse, senior ODP, senior SCP) with appropriate education and training to perform the role of mentor
- A holder of a recognised mentoring qualification

Mentors have a responsibility to:

- Be cognisant of the assessment documents and the trainee SCP portfolio of evidence
- Have a clear and shared understanding of the competencies to be achieved and expected performance in the clinical environment at each stage of learning.
- Liaise with clinical supervisor(s) regarding related practice experiences, and confirm assessment of competence
- Undertake the required assessments and ensure that they liaise with all parties as the need arises
- Complete the necessary sections of the trainee SCP portfolio
- Provide a learning environment that allows students to plan their workplace based assessments (WBA)
- Be approachable, supportive and aware of individual trainees learning style
- Have knowledge and information of the trainee SCPs programme of study and practice assessments
- Be willing to share knowledge of patient care
- Encourage the use of enquiry based learning and problem solving
- Offer encouragement to trainee SCPs to work in partnership with the multidisciplinary team
- Ensure the provision of time for reflection, feedback and monitoring of the progression
- Ensure that the trainee SCP has constructive feedback with suggestions on how to make further improvements to progress

» Seek evaluation of the programme from the trainee SCP on a regular basis.

5.2.3 Educational supervisor

The essential characteristics for educational supervisors are:

» Working as a lecturer within a higher education institution
» Appropriate education qualifications
» Relevant professional qualification.

Educational supervisors have a responsibility to:

» Have a clear and shared understanding of the competencies and expected performance at each stage of learning.
» Identify and provide access to learning opportunities and resources to assist the trainee SCP to reflect on experiences, to facilitate learning in and from practice, and to ensure that the learning experience is a planned process
» Liaise with clinical supervisor(s) and mentor regarding related practice experiences, and confirm assessment of competence has been completed
» Coordinate the start and completion date of the programme with the trainee SCP, clinical supervisor and mentor
» Contribute to a supportive learning environment for students
» Be approachable, supportive and aware of individual trainees learning style
» Have knowledge and information of the trainee SCPs theoretical and practice assessments
» Provide supervision, support and opportunities to develop mastery
» Ensure the provision of education instruction from appropriate teachers
» Ensure the provision of time for reflection, feedback and monitoring of the progression
» Ensure that the trainee SCP has constructive feedback with suggestions on how to make further improvements to progress
» Review the trainee SCPs portfolio and monitor progression
» Seek evaluation of the programme from the trainee SCP on a regular basis.

5.2.4 Teacher

The essential characteristics for teachers are:

» Working within the relevant clinical setting
» Relevant professional qualifications
» Have expert knowledge to share with trainee SCP.

Teachers have a responsibility to:

- Facilitate opportunities for the trainee SCPs personal and professional development
- Have a clear and shared understanding of the competencies and expected performance at each stage of learning
- Teach the trainee SCP within the clinical environment as appropriate to the stage of progression within the programme
- Liaise with the mentor and clinical supervisor for the assessment of competence in related practice processes
- Undertake the required assessments and ensure that they liaise with all parties as the need arises
- Provide advice and support to the trainee SCP whilst working with them
- Provide the trainee SCP with constructive feedback and suggestions on how to make further improvements to progress.
- Ensure that other staff within the department understand the role of the SCP trainee and advocate for them

5.3 Formative assessments

Formative assessment, or a supervised learning event, is used to allow students to use assessment to inform their learning in the form of workplace based assessments (WBA) that facilitate structured feedback from the mentor and reflection on performance by the student. Feedback should inform the development of a learning contract to inform future learning and be included within the portfolio.

The tools for assessment are:

- The Acute Care Assessment Tool (ACAT) evaluates the performance of the student's management of a range of activities over a period of hours, for example managing a clinic or a ward round. The ACAT provides an indication of competency in areas such as time-management, prioritisation, communication, teamwork, patient assessment and decision-making over a period of time.
- The Direct Observation of Procedural Skills (DOPS) assessment takes the form of a student performing a specific practical procedure that is directly observed and scored by an observer in each of the domains, using the standard form.
- Cased based Discussion (CBD) evaluates a performance in the management of a patient to provide an indication of competence in areas such as clinical reasoning, decision-making and application of medical knowledge in relation to patient care. It enables and serves as a method to document conversations about, and presentations of, cases.
- Clinical Evaluation Exercise (CEX) evaluates a clinical encounter with a patient to provide an indication of competence in skills essential for good clinical care such as

history taking, examination and clinical reasoning. This allows students to receive immediate feedback on their learning.

» Multi Source feedback Tool (MSF) This tool can be used to inform students three-monthly review of progress. The purpose of this exercise is for students to receive feedback about how others see their values and attitudes and obtain peer assessments in areas such as clinical skills, humanistic qualities and communication. It can also allow patients to provide feedback .

Formative assessment will be an ongoing element of the programme. It is envisaged this will take place at regular intervals and be formally convened for the purpose. The purpose of formative assessment is to provide a learning opportunity and a rehearsal for summative assessment. This process includes discussion between trainee SCP and teacher both during and after the assessment, followed by further development, prior to actual summative assessment takes place.

An important element is trainee SCP self-assessment, encouraging the trainee to participate in their own assessment, and taking responsibility for their development. This engenders motivation and assists acquisition of critiquing and appraisal skills (Stuart; 2003).

5.4 Summative assessments

5.4.1 Theoretical assessments

Theoretical assessments will take place within, and will be determined by, the education institution responsible for maintaining and overseeing the programme. Theoretical assessments will, in conjunction with clinical assessments, ensure that all outcomes of the curriculum have been tested and achieved.

Examples of summative assessments include essays, reports, portfolio, Observed Structured Clinical Examination (OSCE), case studies, viva voce and written examinations.

5.4.2 Clinical assessments

Summative assessment of performance in clinical practice will be identified by the competencies, learning outcomes and specific assessment criteria within the portfolio. It is the student's responsibility to maintain their portfolio.

5.4.3 Evidence to be included in the Portfolio

1. Dialogue Sheets

Documentation of three monthly discussions with the Consultant Surgeon Supervisor during practice and within the final meeting.

2. Self assessment

This is undertaken by the student to inform the initial meeting and the development of an initial learning contract.

3. Learning Contract

These will be negotiated between the student and Consultant Surgeon Supervisor and reviewed during the three-monthly meetings.

- Identification of Personal Learning Needs - This should be realistic and achievable within the negotiated time frame.
- Action Plan - How the learning needs are going to be achieved.
- Resources - E.g. other staff, visits to other departments or outside agencies, learning packs, journal articles.

4. Record of formative assessments

To demonstrate achievement of learning.

5. Clinical Log Book

6. Additional evidence which may include:

- Testimony of Others - The testimony must be relevant and specific to the student's experience. Such testimony provides further supporting evidence of achievement of benchmarks. Testimony may be obtained from the Consultant Surgeon Supervisor, Practice Mentor, or any other Health/Social Care Professionals who facilitate learning throughout the programme, and anonymised patient feedback
- Certificates of Attendance - This may include short courses, in-house training or conferences attended.

5.5 Timing of clinical assessment:

Month	Action	Outcome	Unsuccessful progress
1	Initial meeting to develop learning contract	Learning needs for first three months established	
3	Meeting to review progress	Learning needs reviewed	Specific action plan developed to support areas for concern
6	Meeting to review progress	Learning needs reviewed	Specific action plan developed to support areas for concern
9	Meeting to review progress	Learning needs reviewed	Specific action plan developed to support areas for concern
12	Summative review of portfolio	Progression into year 2 Establish requirements for progression into year 2	Reassessment of portfolio if required (reassessment opportunity)
15	Meeting to review progress	Learning needs reviewed	Specific action plan developed to support areas for concern
18	Meeting to review progress	Learning needs reviewed	Specific action plan developed to support areas for concern
21	Meeting to review progress	Learning needs reviewed	Specific action plan developed to support areas for concern
24	Summative review of portfolio	Completion of SCP programme	Reassessment of portfolio if required (reassessment opportunity)

5.6 Assessment criteria and standards

5.6.1 Criteria and standards for core clinical processes

The trainee SCP must be assessed in clinical practice and achieve Level 2 competencies. This must be recorded in their portfolio.

5.6.2 Criteria and standards for core and specialty technical/operative skills

The trainee SCP must reach Level 2 practice (see table 5, 4.3.3) for all core technical and operative skills by the end of the programme (see Appendices 2). All assessment outcomes must be recorded in the portfolio. The rate of progress must be documented. The milestones may be able to assist in this process. Consultant Surgeon supervisors must use the clinical assessment tools e.g. DOPS, CBD for the operative assessment of whole or part procedures.

5.6.3 Inclusion of reflective statements in the portfolio of evidence

The trainee SCP must demonstrate the ability to:

- Record descriptions of clinical and educational events (including context and personal thoughts and reactions)
- Recognise significant patterns in these and other events
- Link clinical and educational events with wider theory and practice
- Demonstrate how this will influence their future practice
- Recognise and respect the importance of confidentiality and data protection of individuals and institutions.

5.6.4 Criteria for assessment of the theoretical work in the portfolio of evidence

The education institution delivering the programme will be responsible for demonstrating how the theoretical aspects of the portfolio will be incorporated within their assessment framework. They will produce the criteria by which this will be assessed, to demonstrate the achievement of mastery.

6 Bibliography

The following documents should be reviewed alongside the Curriculum:

- The Department of Health and NHS National Practitioner Programme: The Curriculum Framework for the Surgical Care Practitioner, 2006
- Academy of Medical Educators: The Essential User Guide to Recognition of Trainers in Secondary Care, 2014 (http://www.medicaleducators.org/index.cfm/resources1/)
- The Association for Perioperative Practice: Surgical Care Practitioner Core Curriculum. Harrogate, 2014
- The Association for Perioperative Practice: Surgical Care Practitioner Practice: One team's journey explored, Adrian Jones, Homa Arshad and John Nolan (http://www.qarnns.co.uk/files/JPP%20January%202012-SCPPractice-Jonesetal%5B1%5D.pdf)
- Conference of Postgraduate Medical Deans of the United Kingdom: Liberating Learning, 2002 (http://www.copmed.org.uk/liberating_learning/)
- British Journal of Surgery, Vol 330 April 2005: New professional roles in surgery, Roger Kneebone, Senior Lecturer in Surgical Education
- Department of Health: Optimising the contribution of Non-Medical Healthcare Practitioners within the Multi-Professional Team – A good practice checklist (2006)
- General Medical Council: Consent: patients and doctors making decisions together (2008) http://www.gmc-uk.org/static/documents/content/GMC_Consent_0513_Revised.pdf
- General Medical Council: Good Medical Practice 2013 (http://www.gmc-uk.org/guidance/good_medical_practice.asp)
- General Medical Council: Learning & assessment in the clinical environment (2012) (http://www.gmc-uk.org/Learning_and_assessment_in_the_clinical_environment.pdf_45877621.pdf)
- General Medical Council: Recognition and Approval of Trainers Implementation plan (2012) (http://www.gmc-uk.org/Approving_trainers_implementation_plan_Aug_12.pdf_49544894.pdf)

- General Medical Council: Standards for curricula and assessment systems (2010) (http://www.gmc-uk.org/Standards_for_Curricula__Assessment_Systems.pdf_31300458.pdf)
- Health & Care Professions Council: Standards of proficiency for Operating Department Practitioners (http://www.hpc-uk.org/publications/index.asp?id=46)
- Health & Care Professions Council: Standards of proficiency for Physiotherapists (http://www.hpc-uk.org/publications/standards/index.asp?id=49)
- Health & Care Professions Council: Standards of conduct, performance and ethics (relevant to all HCPC regulated professions) (http://www.hpc-uk.org/publications/standards/index.asp?id=49)
- Intercollegiate Surgical Curriculum Programme (http://www.iscp.ac.uk/)
- Intercollegiate Surgical Curriculum Programme / Good Medical Practice Blueprint 2010 (https://www.iscp.ac.uk/static/public/overarching_blueprint2010.pdf)
- Journal of Health and Social Care Improvement, Vol 1 2013: Literature Review Critically exploring and evaluating Advanced Perioperative Roles in UK, Jenny Abraham
- Royal College of Surgeons Position Statement: Surgical Assistants (http://www.rcseng.ac.uk/publications/docs/rcs-position-statement-surgical-assistants)
- Nursing & Midwifery Council: The Code: Standards of conduct performance and ethics for nurses and midwives (http://www.nmc-uk.org/Publications/Standards/The-code/Introduction/)
- Nursing & Midwifery Council: Standards to support learning and assessment in practice, NMC standards for mentors, practice teachers and teachers (2008) (http://www.nmc-uk.org/Documents/Standards/nmcStandardstoSupportLearning%20AndAssessmentInPractice2008.pdf)
- University of Aberdeen Non-Technical Skills for Surgeons (NOTSS) (http://www.abdn.ac.uk/iprc/notss)
- World Health Organisation Safe Surgery checklist http://www.who.int/patientsafety/safesurgery/ss_checklist/en/

Appendix 1 Core technical and operative skills against clinical milestones

These clinical milestones are a guide to introduce the trainee to the role of SCP. They are not 'tablets of stone' to be enforced by any supervisor or mentor but an aid to assisting the team to identify the initial steps to gaining the training and knowledge required of an SCP.

Levels for theoretical knowledge and skills within the Scope of Practice

Level	Theoretical knowledge	Non-operative clinical skills	Technical and operative skills
1	Trainee SCP has demonstrated progress from needing to be told the principles and theoretical knowledge underpinning their practice to knowing and understanding them.	Trainee SCP has demonstrated their clinical skills and underpinning knowledge to assess and manage patients pre and post-operative with the supervising Consultant surgeon in the immediate vicinity.	Trainee SCP has demonstrated their ability to assist fully a surgeon* during a surgical procedure.
2	Trainee SCP has demonstrated their ability to utilise and critique their knowledge and understanding of the principles underpinning their clinical practice.	Trainee SCP has demonstrated their ability and competence to undertake and critique, in the pre and post-operative environment, tasks delegated to them by the operating surgeon* who is in the same clinical environment.	Trainee SCP has demonstrated their ability and competence to undertake a technical procedure delegated to them by the operating surgeon* who remains within the theatre suite.

* The operating surgeon may be a non-consultant medically qualified member of the surgical team (e.g. a Specialty Trainee or suitably qualified SAS grade) who has been delegated the role by a Consultant surgeon.

By the end of Month One	Level One	Date	Clinical supervisor's signature	Level Two	Date	Clinical supervisor's signature
Activities/competencies						
Introduced to role						
Introduced to surgical team and dynamics						
Introduction to role transition from scrub/ward/allied professional practitioner to trainee SCP						
Begin to consider and examine issues around:						
Considering aspects of consent, including implications of the Mental Capacity Act' Codes of conduct						
Commenced limited assistance, (3rd clinical week) • Patient preparation • Patient positioning • Tissue exposure, handling • Application of suction • Assisting with the cutting of sutures and ligatures • Assistance with haemostasis • Indirect application of diathermy where necessary • Camera holding for minimal access surgery procedures • Suturing subcutaneous and skin layers • Female urinary catheterisation (male if already undertaken male urinary catheterisation training) • Drain securing • Introduction to pre-operative site marking						
Commence clinical log book						
Identify local/regional or national guidelines and protocols – where applicable.						

Undertaken observation at host hospital (first two clinical weeks)						
Introduction to (simulation exercises): • Suturing, • Surgical knot tying						
Proficiency in scrubbing, gowning and gloving						
Participate or gain an introduction to pre and post-operative visiting						

By the end of Month Two	Level One	Date	Clinical supervisor's signature	Level Two	Date	Clinical supervisor's signature
Activities/competencies						
Demonstrate: • The application of skin preparation and discuss best practice in relation to this role • Draping and discuss best practice in relation to this role • Patient positioning, including care of vulnerable tissues an joints • Retraction of skin and tissues and organs and providing good exposure • Safe and effective use of suction • Assistance with haemostasis • Camera holding for minimal access surgery procedures • Performing skin closure by suture or clip under the direct supervision of the surgeon • Demonstrate by discussion, knowledge of all types of suture and where they may be used and all types of suture techniques						

- Female urinary catheterisation (male if already trained)
- Skilled at tying surgical knots
- Insertion and suture of drain

Gain an introduction to team dynamics

- Observation on ward rounds
- Attendance at X-ray meetings
- Observation at out-patients clinics
- Attendance at an audit or M&M meeting

Female catheterisation using an aseptic technique and commenced supervised training of male catheterisation

Demonstrate manual dexterity and application of instrument

Gain an introduction to:

- Chest and abdominal X-rays
- Electro-surgical principles
- Introduction to male catheterisation (if not already done)

Gain an introduction to ward duties

- Venepuncture
- Cannulation
- 12 lead ECG

Safe at infiltrating the wound with local anaesthetic post-surgical procedure under supervision

Be proficient at pre-operative site marking

By the end of Month Four	Level One	Date	Clinical supervisor's signature	Level Two	Date	Clinical supervisor's signature
Activities/competencies						
Practitioners should reach competence in: • Pre and post-operative visiting • Patient preparation • Patient positioning • Tissue exposure, and handling • Application of suction • Assistance with haemostasis • Assistance with haemostasis • Camera holding for minimal access surgery procedures • Suturing subcutaneous and skin layers • Male and female urinary catheterisation Gain an introduction to consenting patients for specified procedures after assessment by Consultant surgeon						
Introduction to taking a medical and surgical history						
Should have an understanding the principles of: • The Harmonic scalpel • Principles of internal stapling devices • Principles of lasers • Principles of robotics in surgery						
Introduction to: • Venepuncture • Venous cannulation • Arterial blood gas stabs						

By the end of Month Six	Level One	Date	Clinical supervisor's signature	Level Two	Date	Clinical supervisor's signature
Activities/competencies						
Introduction to further ward duties • X-Ray evaluation • Wound care evaluation • Post-operative physiotherapy evaluation • Knowledge of complementary therapies and their uses • Post-operative follow-up standards						
Demonstrate effective communication skills						
Demonstrate personal organisation and responsibility						
Demonstrate critical thinking skills						
Continue to undertake and participate in the process of gaining a patient medical and surgical history						
Transferable IT skills • Demonstrate IT competence • Access, retrieve, interpret and utilize information and evidence • Appropriately, including numerical data						
Work collaboratively						
Contribute to management of change						
Apply reflective skills						

By the end of Month Nine	Level One	Date	Clinical supervisor's signature	Level Two	Date	Clinical supervisor's signature
Activities/competencies						
Interpret normal haematological values						
Interpret normal clinical chemistry values						
Competently take a patients medical and surgical history						
Understand blood groups and transfusion and signs and symptoms of transfusion incompatibility						
Interpret biochemistry investigations						

By the end of Month Twelve	Level One	Date	Clinical supervisor's signature	Level 2	Date	Clinical supervisor's signature
Activities/competencies						
Demonstrate an informed and evidence based knowledge of the philosophy behind the role of SCP, with understanding of the legal and ethical issues, vicarious liability						
Demonstrate evidence base to learning and practice						
Demonstrate audit/ clinical effectiveness with accurate record keeping and documentation						

By the end of Month Fifteen	Level One	Date	Clinical supervisor's signature	Level Two	Date	Clinical supervisor's signature
Activities/competencies						
Be able to demonstrate an understanding of the risk management/ clinical governance/quality assurance audit cycle of patient care and professional practice						

By the end of Month Eighteen	Level One	Date	Clinical supervisor's signature	Level Two	Date	Clinical supervisor's signature
Activities/competencies						
Review guidelines and protocols to ensure meeting the extent of practice. This should be a rolling programme as each role and job description will vary according to the individual specialism and the individual concerned.						

By the end of Month Twenty-One	Level One	Date	Clinical supervisor's signature	Level Two	Date	Clinical supervisor's signature
Activities/competencies						
Review competencies required for qualification for the role of SCP						

By the end of Month Twenty-Four	Level One	Date	Clinical Supervisor's signature	Level Two	Date	Clinical Supervisor's signature
Activities/competencies						
Be able to demonstrate the knowledge required by the RCSEng and NAASP to undertake the role of qualified SCP						

Adapted from the National Association of Assistants in Surgical Practice Surgical Care Practitioner Core syllabus 2005

Note: Trainee SCPs must reach level 2 supervision in all of the above skills prior to qualification

Appendix 2 Specialty specific theoretical knowledge and skills

Contents – Specialty specific syllabus

1A: Urology – theoretical knowledge

The following are specific to surgery in adults	Required level of knowledge
Normal anatomy and physiology of the kidneys and genito urinary tract (deeper than expected at core knowledge)	2
Altered renal physiology (including renal failure)	2
Physiology of urinary tract obstruction	2
Understanding pre and post-operative management of the urology patient	2
Naturopathic bladder dysfunction	2
Clinical Investigation of the urinary tract	2
• Haemotological	2
• Biochemical	2
• Urodynamics	2
• Histological	2
• Microbiological	2
• Radiological and imaging	2
Management of the following symptoms:	
• Haematuria	2
• Urinary retention (acute and chronic)	2
• Ureteric colic	2
• Lower urinary tract symptoms (LUTS)	2
• Acute testicular pain	2
• Scrotal swellings	2
Principles of management of the following conditions:	
• Bladder dysfunction and incontinence	2
• Urinary tract trauma	2
• Urological infections	2
• Urinary stone disease	2
– Both medical and surgical management	2
• Urinary tract obstruction (including urological stents)	2
• Benign prostatic hypertrophy (BPH)	2
• Urological malignancy	2
• Disorders of the scrotum and penis	2
Principles of relevant urological procedures:	
Circumcision	2
Hydrocele	2
Epididymal cyst	2
Vasectomy	2
Testicular torsion	2
Rigid cystoscopy and biopsy	2
Flexible cystoscopy and biopsy	2

1B: Urology – clinical/technical skills

The following are specific to surgery in adults	Required level of supervision
Suprapubic catheterisation	2
Flexible cystoscopy	2
Endoscopic biopsy	2
Wound opening:	
• Laparotomy	2
• Nephrectomy	2
Wound closure:	
• Laparotomy	2
• Nephrectomy	2

1C: Optional urology – clinical/technical skills

The following are specific to surgery in adults	Required level of supervision
Rigid cystoscopy	2
Endoscopic biopsy with rigid endoscope	2
Principles of Robotic Surgery	2
Indications & contraindications for robotic surgery:	2
• Prostatectomy	2
• Cystectomy	2
• Nephrectony	2
• Pyleoplasty	2
• Theory required to enable safe & effective patient follow through from diagnosis to up to two years after discharge from hospital including	2
• Continence and erectile dysfunction (however- it maybe that this is already addressed in the broader categories above)	2
• Placement of Operating Ports	2
The role of Enhanced Recovery in Urology Surgery	2

2A: Trauma and Orthopaedic surgery – theoretical knowledge

General orthopaedic principles:	Required level of knowledge
Normal and altered Physiology, including:	
• blood loss leading to disseminated intravascular coagulation	2
• Trauma induced Fat embolism syndrome	2
Normal and altered anatomy:	2
• upper limb	2
• Spine	2
• lower limb	2
Understanding of biomechanics including gait:	2
• knowledge of the separate parts of the gait cycle	2
Outline understanding types of available prosthetics/orthotics for the areas listed below and risks of usage:	
• upper limb braces; wrist drop splints, dynamic hand/finger splinting	2
• orthosis name used at different level spine fractures; bracing childhood spinal deformity	2
• lower limb - foot drop splints	2
Physical assessment of the orthopaedic patient including examination of joints:	
• Hand/wrist	2
• Elbow	2
• Shoulder	2
• Hip	2
• Knee	2
• Ankle/foot	2
• Cervical/thoracolumbar spine	2
• Neurovascular limb assessment	2
• Compartment syndrome	2
• Neurovascular status	2
Clinical investigation relating to T&O surgery:	
• Haematology	2
• Biochemistry	2
• Histology - including sampling techniques	2
• Microbiology - including sampling techniques	2
• Radiological imaging relating to orthopaedics and trauma surgery:	2
• X RAY - Recognise features of OA/RhA, fracture types; dislocation of native joint and with an arthroplasty; loose or infected arthroplasty, pre & post-operative templating/assessment)	2
• MRI - normal and abnormal appearance including prolapsed disc, spinal disc/vertebral infection.	2
• MRI - Assessment of soft tissue and bone tumours (benign and malignant), bone and soft tissue infection and avascular necrosis of bone	2
• CT - understand indication for CT and brief understanding of limitations of 3D CT reconstruction	2

• Isotope bone scan - recognise early and late post operative appearance of arthroplasty; loosening and infection of arthroplasty; appearance of bone tumours including myeloma	2
• Isotope bone scan - indications and limitations in assessing arthroplasty, bone infection, avascular necrosis and bone tumours	2
• Ultrasound Scan- understand the indications and limitations	2
• Neurophysiological investigations - understand the indications and limitations	2
Understanding peri-operative management of the orthopaedic patient	2
• preoperative investigation/assessment including x-ray templating arthroplasty surgery	2
• Positioning, equipment issues - e.g. operating table types, tourniquet, traction, cell salvage, imaging & ultrasonic equipment	2
• Positioning of arthroscopic and electrodiathermy equipment	2
• Intra operative management including choice of antibiotic prophylaxis	2
• Thromboembolic prophylaxis	2
Principles of rehabilitation as needed for orthopaedic conditions	2
The care of external fixator pin sites	2
• adjustment of external fixators or spatial frames in limb reconstruction	2
Consent:	
• Discuss the treatment, benefits, risks and alternatives to surgery	2
• Complete a consent form and sign this with the patient	2

Specific Orthopaedic principles:	
Pathophysiology of joint disease & strategies for their treatment	
• Degenerative	2
• Inflammatory	2
Strategies for management of joint diseases	
• rationale for non-operative or operative treatment	2
Use of implants in elective orthopaedic surgery	
• Implant fixation - Materials & Techniques used	2
Principles of arthroscopic surgery:	
• Relevance of Joint examination under anaesthesia	2
• Understand indications for diagnostic arthroscopy as opposed to therapeutic	2
Spinal disorders incl cauda equina syndrome	
• Understand relevance of symptoms to disease type and treatment including physiotherapy, exercise and surgery (be aware of red flag/ warning symptoms)	2
Investigation & treatment of entrapment neuropathies	
• Be aware these and how to investigate/treat these conditions (including carpal tunnel, ulnar nerve entrapment at elbow, piriformis syndrome)	2

Investigation & treatment of the painful hip & knee in a child • in particular, understand the issues of referred pain	2
The recognition of abnormalities in the growing child • Be aware that many childhood conditions do not require surgery and be able to list the more serious joint/bone conditions which benefit from surgery.	2

Specific Orthopaedic procedures: Knowledge of available options and surgical technique	
Excision of ganglion	2
Carpal tunnel decompression	2
Release of Dupuytren's contracture	2
Tendon transfer	2
Ulna nerve decompression	2
Trigger finger release	2
Amputation surgery principles	2
Harvesting of bone graft	2
Total hip & knee replacement: position patient & perform approach and closure of wound	2
Knowledge of and ability to perform anterolateral and posterior hip approach and TKR medial approaches- making skin incision up to exposing bone	2
Spinal decompression & fusion: position patient & perform early part of approach	2
Anterior cruciate ligament reconstruction: position patient & perform early part of approach	2
Arthroscopy of: wrist, elbow, shoulder, hip, knee, ankle position patient & skin incision	2
Long bone wound opening and closure under direct supervision Demonstrating understanding of Henry's extensile approaches	2
Hind foot surgery: position patient & perform skin incision	2
Forefoot surgery: position patient & perform skin incision	2
Amputation of toe	2
Great toe surgery	2
In growing toe nail surgery	2
Sub acromial decompression: position patient & perform skin incision	2
shoulder standard operations for wound opening and closure under direct supervision	2
Shoulder stabilisation, e.g. Bankart repair	2
Shoulder rotator cuff repair	2
Total shoulder & elbow replacement: position patient & perform approach and closure of wound	2
Knowledge of and ability to perform approach - making skin incision up to exposing bone	2

2B: Trauma and Orthopaedic surgery – clinical/technical skills

General trauma principles:	Required level of supervision
Have an understanding of the ATLS approach to trauma management	
• Understand need to resuscitate then diagnose before treatment can begin	2
• Understand life threatening conditions are treated before limb threatening conditions	2
Principles of pain relief in trauma patients	2
• implications of different modalities in operative and non-operative trauma patients	2
Principles of management of soft tissue injury	2
• Skin incl soft tissue cover (plastic surgery reconstructive ladder -skin graft local and free flaps)	2
Compartment syndrome including measurement principles and techniques	2
• Fasciotomy (including knowledge of BOA/BAPS guidelines)	2
• Muscle, tendons, ligament:, nerves - principles and repair techniques, where surgery is appropriate	2
Principles of Management of fractures (reduce, hold/immobilise then mobilise fractures)	
• Techniques of reduction: Operative & Non operative	2
• Techniques of Immobilisation (& use of splints and surgical techniques)	2
• Application of a cast (be able to apply Plaster of Paris - POP - and knowledge of synthetic cast application/risks of use)	2
• Splitting of a cast: be able to perform safely	2
• Application/Setting up and maintaining traction systems in adult & child: understanding indications & principles	2
• Perform insertion of skeletal traction pin and application of traction	2
• pin site care knowledge and able to perform	2
• Management of spinal injury:	2
• Knowledge of BOA/BASS Spinal precautions -protection from further injury and clearing a spinal injury	2
• Non operative management incl collars and halo traction awareness of different options	2
• Management of pelvic trauma	2
Consent:	
• Discuss the treatment, benefits, risks and alternatives to surgery	2
• Complete a consent form and sign this with the patient	2

Specific Trauma principles:	
Specific fracture management (incl x-ray interpretation):	2
• Wrist including scaphoid and Hand	2
• Radius and Ulna	2
• Elbow	2
• Humerus	2
• Shoulder	2
• Pelvis	2
• Hip	2
• Femur	2
• Knee	2
• Tibia and Fibula	2
• Ankle	2
• Calcaneum	2
• Foot	2
Principles of management of joint dislocation	
• Applied to the native joint & following arthroplasty	2
Specific dislocation management (incl x-ray interpretation):	
• finger/hand	2
• Elbow	2
• Shoulder	2
• Hip, with & without THR	2
• Knee	2
• Foot	2
Understanding that there are classification systems of closed and open fractures	
• Be aware of the commonly used classification systems in use	2
Principles of Open Fracture Management	
• Be aware of the BOA/BAPRAS guidelines on The Management of Severe Open Lower Limb Fractures	2
Pathophysiology of bone healing	2
Understand the various ways in which bone heals and the factors including patient co-morbidities, surgery, immobilisation and infection which influence this	2
Principles of management of pathological fractures	
• Understand the investigation of the primary lesion and its systemic sequelae	2
• Understand the management options for the primary lesion and its systemic sequelae	2
Principles of management of head injuries including GCS assessment	
• Be able to perform a GCS assessment	2

Specific Trauma procedures: Knowledge of available options and surgical technique	
Incision and drainage of superficial and deep abscess - technique incl wound/post op care options	2
Split skin grafting - types of harvesting devices (manual blade/air dermatome) relevance of graft thickness post op wound care technique	2
Flexor tendon repair suture technique, postoperative rehab regimen options how this differs to extensor tendon repair	2
K-wiring of a wrist/phalangeal fracture technique and risks	2
Fixation (ORIF, IM Nail or X-fix) understanding of principles & available options plus outline of technique (including the ability to open and close the wound)	2
• Scaphoid fracture	2
• Wrist/forearm	2
• Olecranon/distal humerus	2
• Humerus	2
• Shoulder/clavicle	2
• Different types of hip (including fixation of a slipped upper femoral epiphysis)	2
• Femur	2
• Knee/tibial plateau	2
• Tibia	2
• Ankle	2
• Foot	2
Principles of removal of metalwork	2
Closed manipulation and casting of tibial fracture	2

2C: Optional Trauma & Orthopaedic Surgery – clinical/technical skills

Specific technical skills: Following additional training as appropriate to the sub-speciality the SCP is working in and with agreement of the supervising surgeon, the following should be able to be performed safely. This list should act as a guide and not be considered exhaustive.	Required level of supervision in training
Perform compartment syndrome measurement	2
Apply skin traction and set up traction apparatus on the trauma bed	2
Adjustment of external fixators or spatial frames in trauma and limb reconstruction- possibly including distraction lengthening of bone once frame in situ after corticotomy performed	2
Be able to reduce common fractures and simple disclocations as agreed by supervising surgeon	2
Apply plaster of paris and be able to safely split a cast	2
Apply a cervical collar and set up halo traction once the ring is in place	2
Perform insertion of skeletal traction pin and traction pin site care	2
Apply and adjust braces/splints/slings (e.g., Futura; broad arm and collar and cuff slings; poly-sling; POP backslab; hip abduction/anti-dislocation brace; knee ligament stabilising/offloading braces.	2
Perform harvesting of bone graft for trauma and elective procedures	2
Prepare allograft for use in surgery e.g. shaping struts/morselising femoral head graft	2
Graft preparation for knee ligament reconstruction- hamstring or BTB	2
Template for arthroplasty planning on PACS	2
Perform shoulder replacement approach; anterolateral and posterior hip approach and TKR medial approach- making skin incision up to exposing bone and be able close wound/deeper layers at the conclusion of the surgery	2
Perform incision and drainage of superficial abscess	2
Perform soft tissue injections e.g. trochanter/elbow/sub acromial bursa region	2
Perform carpal tunnel decompression	2
Perform trigger finger release	2
Perform ingrowing toe nail surgery	2
Perform digital local anaethesia block (safe needle placement and know dosage/risks of different local anaesthetics)	2
Perform aspiration & Injection into joints, safe placement of needle into joint for either diagnosis or treatment including (where relevant) the use of different types of contrast, also appropriate precautions when performing this on a joint with an arthroplasty	2

3A: Cardiothoracic surgery – theoretical knowledge

* Note: The optional components of this module are dependent on the service delivered in the supporting trust e.g. Thoracic surgery may not be delivered in all centres.

Cardiac and Pulmonary Anatomy and Physiology	Required level of knowledge
Physiology:	
• Anatomy of cardiac chambers, septa, valves, pericardium and great vessels	2
• Anatomy of epicardial coronary arteries and veins	2
• Anatomy of conduction system of the heart	2
• Cardiac and pulmonary embryology	1
• Gross anatomy of lungs, pleura, diaphragm and chest wall, including bronchopulmonary segments and bronchial anatomy	2
• Microscopic anatomy of lungs and airways	1
• Circulatory physiology, including control of heart rate, blood pressure and cardiac output	2
• Respiratory physiology including arterial blood gas analysis	2
Conduit Anatomy and Physiology:	2
• Anatomical components of Venous conduit	2
• Anatomical components of Arterial conduit	2
• Options for arterial conduit and the evidence for their use in Coronary Artery Bypass Grafting	2
• Arterial supply and venous drainage of the leg	2
• Arterial supply and venous drainage of the arm	2
• Peripheral nerve innervation of the leg	2
• Peripheral nerve innervation of the arm	2
• Internal mammary arteries, their surrounding structures and the method of harvest	2
Pre-assessment Risk & Consent:	
• Patient factors and pre-morbid factors that influence surgical risk	2
• Cardiac risk factors	2
• Systems for formal risk stratification	2
• Mechanisms for reduction of pre-operative risk	2
• Legal and moral framework for consent	2
• Mental Capacity Act and how this relates to the consenting process	2
Ischaemic Heart Disease:	
Pathology of atherosclerosis and other mechanisms for ischaemia	2
Natural history of ischaemic heart disease, including symptoms and signs, and prognosis	2
Acute coronary syndromes	2
Chronic coronary syndromes	2
Investigations in ischemic heart disease	2
Risk factors and risk factor modification	2
Percutaneous treatment vs Surgical treatment and the evidence for different therapies	2

Valvular Heart Disease:

• Aortic Valve disease – pathological processes	2
• Aortic valve disease – natural history including prognosis	2
• Aortic Valve disease – signs and symptoms, and investigations	2
• Aortic valve disease - treatment	2
• Mitral Valve disease – pathological processes	2
• Mitral valve disease – natural history including prognosis	2
• Mitral Valve disease – signs and symptoms, and investigations	2
• Mitral valve disease - treatment	2
• Tricuspid Valve disease- pathological processes	1
• Tricuspid Valve disease- natural history including prognosis	1
• Tricuspid Valve disease- signs, symptoms and investigations	1
• Tricuspid Valve disease- treatment	1
• Pulmonic Valve disease- pathological processes	1
• Pulmonic Valve disease- natural history including prognosis	1
• Pulmonic Valve disease- signs, symptoms and investigations	1
• Pulmonic Valve disease- treatment	1

Heart Failure:

• Heart failure – pathological and physiological processes	2
• Heart failure – natural history including prognosis	2
• Heart failure – signs and symptoms, and investigations	2
• Heart failure - treatment	2

Lung Disease (*Optional):

• Interstitial lung disease – pathological processes and classification	1
• Interstitial lung disease – natural history including prognosis	1
• Interstitial lung disease – signs and symptoms, and investigations	1
• Interstitial lung disease - treatment	1
• Chronic obstructive airways disease – pathological processes	1
• Chronic obstructive airways disease – natural history including prognosis	1
• Chronic obstructive airways disease – signs and symptoms, and investigations	1
• Chronic obstructive airways disease - treatment	1
• Bullae disease – pathological processes	1
• Bullae disease – natural history including prognosis	1
• Bullae disease – signs and symptoms, and investigations	1
• Bullae disease - treatment	1
• Infective lung disease (including mycobacterial) – pathological processes	1
• Infective lung disease (including mycobacterial) – natural history including prognosis	1
• Infective lung disease (including mycobacterial) – signs and symptoms, and investigations	1
• Infective lung disease (including mycobacterial) - treatment	1

Lung Cancer (*Optional):	
• Lung Cancer – pathology	2
• Lung Cancer - staging	2
• Lung cancer – natural history including prognosis	2
• Lung cancer – signs and symptoms, and investigations	2
• Lung Cancer – treatment options and evidence supporting	2
• Lung Cancer – palliation	2
Principles of Cardiopulmonary Bypass (CPB):	
• Essential functions of CPB	2
• Standard components of CPB circuit	2
• Aortic cannulation and Venous drainage	2
• Venting	2
• Weaning from bypass	2
• Anticoagulation and reversal	2
• Emergency scenarios	2
• Alternative cannulation sites	2
• Cardioplegia and its administration	2
• Cross-clamp fibrillation	2
• Other myocardial protection techniques	2
Postoperative bleeding and tamponade:	
• Blood components	2
• Clotting cascade	1
• Blood conservation techniques	2
• TEG and other clotting studies	1
• Signs of bleeding and hypovalemia	2
• Signs of cardiac tamponade	2
Ventricular Function and Cardiac Output:	
• Normal cardiac anatomy	2
• Cardiac muscle structure and function	2
• The cardiac cycle	2
• Contractility and the control of cardiac output	2
• Frank-Starling relationship	2
• New York Heart Association functional classification	2
• Signs and symptoms of cardiac failure	2
• Chest X-ray changes in cardiac failure	2
• Echocardiography in the assessment of ventricular function. (TTE and TOE)	1
• Cardiac angiography	2
• Stress testing	1
• Non invasive measurement of cardiac output	2
• Pulmonary artery catheterisation	2
• Fick principle	1

Management of low output states:	
• Causes of cardiac failure	2
• Assessment of hypovolaemia and performing a fluid challenge	2
• Adrenergic receptors	1
• Inotropes	1
• Vasodilators	1
• Indications for intra-aortic balloon insertion (and contraindications)	2
• Timing the IABP	2
• Placement and position checking	2
• Weaning and removal	2
Management of Complications of Cardiac Surgery:	
• Renal failure – causes, diagnosis and treatment	2
• Neurological dysfunction – causes, diagnosis and treatment	2
• Respiratory complications – causes, diagnosis and treatment	2
• Mechanisms and management of post-operative dysrhythmia	2
Imaging in Cardiothoracic Surgery:	
• Physical processes involved in imaging (ionising radiation, ultrasound, MR)	1
• Coronary angiography	2
• Echocardiography – indications and pitfalls	1
• Cardiac CT	1
• Cardiac MRI	1
Electrocardiograms and Pacing:	
• Normal conduction system of the heart	2
• Normal 'QRST' complex and it's relevance to normal conduction system and cardiac cycle	2
• Territories on an ECG and the relevance to coronary anatomy	2
• ST segment analysis and its relevance to myocardial perfusion	2
• Atrio-ventricular Block	2
• Bundle branch blocks	2
• Atrial arrhythmias	2
• Ventricular arrhythmias	2
• Cardiac axis	2
• Epicardial and trans-venous pacing	2
• Pacing modes	2
• Checking thresholds	2
• Removal of temporary pacing wires	2
• Indications for permanent pacing	2

Respiratory Assessment:	
• Respiratory anatomy	2
• Respiratory physiology	2
• Ventilation and perfusion matching	1
• Alveolar anatomy	1
• History and examination	2
• Common respiratory diseases	2
• Oxygen and CO2 transport	2
• Chest X-ray assessment	2
• Bronchodilators	2
• Pulmonary function testing	2
• CT thorax	1
• Arterial blood gas analysis	2
Cardiac Pharmacology:	
• Anti-platelet agents	1
• Lipid reduction	1
• Beta-blockers	1
• Calcium channel blockers	1
• ACE inhibitors and AT2 antagonists	1
• Potassium-channel activators	1
• Diuretics	1
• Nitrates and PDE5 inhibitors	1
• Anti-dysrhythmic medication - classification	1
• Management of cardiac output	2
• Anticoagulants	2
• Thrombolysis	1
Principles of Cardiac Anesthesia:	
• Preoperative assessment	2
• Risk assessment scores	2
• Common preoperative drug therapy	2
• Monitoring	2
• Arterial cannulation	1
• Central venous cannulation	1
• Anesthetic agents	1
• Muscle relaxants	1
• Postoperative haemostasis and coagulation	2
• Postoperative complications	2
• Analgesia	1
• Ventilation and ventilators	2
• Renal replacement therapy	1

3B: Cardiothoracic surgery – clinical/technical skills

* Note: The optional components of this module are dependant on the service delivered in the supporting trust e.g. Thoracic surgery may not be delivered in all centres.

	Required level of supervision
Conduit Anatomy and Physiology:	
• Long saphenous vein harvest	2
• Radial artery harvest (*Optional)	2
• Short Saphenous vein harvest	1
Pre-assessment Risk & Consent:	
• History taking and examination	2
• Investigations and Interpretation	2
• Assessment of conduit harvest sites	2
Valvular Heart Disease:	
• Perform a cardiovascular examination	2
• Interpretation of Investigations prior to valve surgery	2
• First assist in valve replacement surgery	2
Lung Disease:	
• Perform a respiratory examination	2
• Thoracotomy	1
• Thoracotomy wound closure	2
Principles of Cardiopulmonary Bypass (CPB):	
• Assisting to prepare patient for cannulation	2
• Assisting with groin dissection for cardio- pulmonary bypass	2
Postoperative bleeding and tamponade:	
• Emergency re-sternotomy	2
Management of low output states:	
• Insertion of intra-aortic counter-pulsation balloon catheter	1
• Removal of intra-aortic counter-pulsation balloon catheter	2
Electrocardiograms and Pacing:	
• Normal 'QRST' complex and its relevance to normal conduction system and cardiac cycle	2
• Territories on an ECG and the relevance to coronary anatomy	2
• ST segment analysis and its relevance to myocardial perfusion	2
• Atrio-ventricular Block	2
• Bundle branch blocks	2
• Atrial arrhythmias	2
• Ventricular arrhythmias	2
• Checking thresholds	2
• Removal of temporary pacing wires	2

Respiratory Assessment:

- Chest X-ray assessment 2
- Interpretation of pulmonary function tests 2
- Arterial blood gas analysis 2

3C: Optional Cardiothoracic surgery – clinical/technical skills

*Optional Additional Procedural Skills	Required level of supervision
Median Sternotomy	1
Median Sternotomy Closure	2
Minimally Invasive Conduit Harvest Techniques	2
Insertion and fixation of chest drains	2

4A: Plastic and reconstructive surgery – theoretical knowledge

Principles of:	Required level of knowledge
Detailed normal and altered anatomy and physiology of the:	
Hand	2
Foot	2
Breast	2
Head and neck	2
Skin	2
Assessment of viability of skin	
• Relating to skin flap monitoring	2
• Skin cover – the 'reconstructive ladder'	2
Principles of relevant plastics procedures:	
• Skin grafting	2
– Split	2
– Full thickness	2
• Flaps	2
– Local	2
– Distant	2
– Free transfer	2
• Tendon repair	2
• Microvascular repair	2
• Nerve injury and repair	2
• Nail-bed repair	2
• Lower limb trauma: skin and soft tissue loss	2
• Breast reconstruction	2
• Congenital: prominent ears	2
• Hand trauma:	2
– Flexor tendon	2
– Extensor tendon	2
– Nerve injury/repair	2
Diagnosis and management of skin tumours	2
The management of burns:	
• Assessment	2
• Resuscitation	2
• Debridement and grafting	2
The management of congenital defects	2
Soft tissue infections, e.g. hand and necrotising fasciitis	2
Leg ulcers:	
• Debridement	2
• Grafting	2

4B: Plastic and reconstructive surgery – clinical/technical skills

The following are specific to surgery in adults	Required level of supervision
Skin lesion, benign	2
Revision of minor scars	2
Skin cancer:	
• Basal cell carcinoma excision	2
• Squamous carcinoma excision	2
• Melanoma excision	2
Breast reconstruction: wound closure	2
Provision of plastic surgery incisions:	
Y plasty	2
Z plasty	2

5A: Neurosurgery – theoretical knowledge

Required level of knowledge	
Normal and altered anatomy and physiology of the:	
• Central nervous system	2
Understanding pre and post-operative management of the neurosurgical patient:	
• Critical care	2
• Neuro-rehabilitation	2
• Neurological examination	2
Clinical investigation of the neurosurgical patient:	
• Haematological	2
• Biochemical	2
• Histological	2
• Microbiological	2
• Radiological and imaging	2
– Interpretation of CT scans and MRI scans	2
• Insert intracranial pressure monitor	2
• Lumbar puncture/tap CSF reservoir	2
Management of the following symptoms:	
• CNS infection	2
• Deteriorating level of consciousness including use of Glasgow Coma Scale and score	2
Principles of management of the following conditions:	
Head injury	2
Intracranial tumours	2
Subarachnoid haemorrhage/intracerebral haemorrhage	2
Spinal degenerative disease	2
Spinal injuries	2
Principles of relevant neurosurgical procedures:	
• Shunt surgery	2
• Harvest iliac crest bone graft	2
• Interventional neuroradiology procedures	2
• Spinal procedures	2
• Image guided surgery	2
• Stereotaxy	2
• Muscle/nerve/temporal artery biopsy	2
• Burr hole for chronic subdural or insertion of ventricular drain	2
• Craniotomy, including raising the bone flap	2
– Raising the bone flap	2
– Closing	2
• Intra-operative nerve/spinal cord monitoring	2
• Spinal cord/cauda equina compression	2
Neuro-opthamology	2
Neuro-pathology	2

Neuro-vascular disorders	2
Neuroradiology	2
Neuro-oncology	2
Neuro-otology	2
Maxillofacial surgery	2
Paediatric neurosurgery	2

5B: Neurosurgery – clinical/technical skills

The following are specific to surgery in adults	Required level of supervision
Opening of laminectomy wound	2
Closure of laminectomy wound	2
Muscle biopsy	2
Nerve biopsy	2
Temporal artery biopsy	2
Application of skull traction/halo brace	2
Opening of craniotomy soft tissue wounds	2
Closure of craniotomy soft tissue wounds	2
Performing abdominal mini-laparotomy for insertion of ventriculo-peritoneal shunt	2
Harvesting abdominal fat graft	2
Harvesting fat and/or fascia lata graft from thigh	2
Application of halo crown & jacket apparatus	2
Follow up care, with tightening and identification of complications of halo crown & jacket	2

6A: Paediatric surgery – theoretical knowledge

Note: The British Association of Paediatric Surgeons (BAPS) does not see a role for Surgical Care Practitioners in paediatric surgery at this time

	Required level of knowledge
Understanding pre and post-operative management of the paediatric and neonate:	
• Assessing the sick child	2
• Fluid and electrolyte balance in children	2
• Antibiotics in children	2
• Dosage of drugs	2
• Blood products in children	2
• IV access in children	2
• Venepuncture for blood investigations and intravenous fluids in children	2
• Consent: child/parents	2
Management of the following symptoms:	
• Abscesses	2
• Pain relief	2
Principles of management of the following conditions:	
• Abscesses	2
– Superficial	2
– Intraperitoneal	2
• Renal tract anomalies/obstruction	2
• Chest trauma	2
• Gastro Intestinal bleeding	2
• Paediatric malignancies	2
• Acute scrotum	2
• Hypertrophic pyloric stenosis	2
• Neonatal intestinal obstruction – significance of bilious vomiting	2
• Acute abdominal pain – presentation and causes	2
• Sepsis	2

Principles of relevant paediatric and neonatal procedures:	
• Inguinal hernia	2
• Epigastric hernia	2
• Umbilical hernia	2
• Hydrocoele	2
• Undescended testis	2
• Retractile testis	2
• Phimosis	2
• Abdominal trauma	2
• Laparotomy wound closure	2
• Intussusception	2
• Minor surgery	2
– Seb/dermoid cysts	2
– Ingrowing toenail surgery	2
– Diathermy	2
– Suturing	2
• Tongue tie	2

6B: Paediatric surgery – clinical/technical skills

The following are specific to surgery in children	Required level of supervision
Wound opening:	
• Laparotomy	1
• Thoracotomy	1
Wound closure:	
• Laparotomy	1
• Thoracotomy	1
Insertion of Chest drain	1
Venous access	1
Abscesses:	
• Superficial	1
• Intraperitoneal	1
Surface surgery:	
• In growing toe nail	1
• Seb/dermoid cysts	1
Inguinal herniotomy	1
Epigastric/umbilical hernias	1
Orchidopexy	1
Scrotal exploration	1
Circumcision	1
Tongue tie release	1

7A: General surgery – theoretical knowledge

Required level of knowledge	
Detailed normal anatomy and physiology of the abdominal cavity	2
Understanding pre and post-operative management of the general surgery patient	2
Clinical investigation related to general surgery:	
• Haematological	2
• Biochemical	2
• Histological	2
• Microbiological	2
• Radiological and imaging	2
• Central venous access	2
For nutrition	2
For acute resuscitation	2
– For monitoring	2
Management of the following symptoms:	
• Acute abdominal problems	2
– Pain	2
– Peritonitis	2
• Renal	2
• Cardiac Respiratory	2
• Alimentary	2
• Neurological	2
• Diabetic	2
• Haematological	2
• Haemodynamic	2
• Sepsis de novo	2
Principles of management of the following conditions:	
• Appendicitis and its complications	2
• Small and large bowel obstruction	2
• Obstructed hernia	2
• Gallstone disease and their complications	2
– Acute presentations	2
• Pancreatitis and its complications	2
• Chest injuries	2
– Pneumothorax	2
– Stabbings	2
– Trauma	2
– Pericardial injury	2
• GI bleeding	2
– Upper	2
– Lower	2
– Post-operative	2

Principles of relevant general surgery procedures:	
• Abscesses	2
– Superficial	2
– Perianal	2
– Ischiorectal	2
– Breast	2
– Pilonidal	2
– Axilla	2
– Intra-peritoneal	2
– Deep muscle	2
• Appendicectomy	2
• Minor surgery	2
– Ingrowing toenail surgery	2
– Sebaceous cysts	2
– Lipomata	2
– Other subcutaneous nodules	2
• Epididymal cyst	2
• Herniae	2
– Inguinal	2
– Femoral	2
– Incisional	2
– Hiatus	2
– Umbilical	2
– Spigelian	2
– Obstructed	2
• Cholecystectomy	2
– Open surgery	2
– Laparoscopic surgery	2
• Abdominal wound closure	2
– Midline	2
– Transverse	2
– Retro-peritoneal	2
– Wound debridement	2
• Laparotomy	2
• Bowel resection	2
– Small bowel with mesentery	2
– Large bowel with mesentery	2
– Hartman's procedure	2
– Anastomosis	2
– Small bowel	2
–Large bowel	2
• Stomach	2
– Over sewing of perforated duodenum ulcer	2
• Formation of stoma	2
– Colostomy	2
– Ileostomy	2

• Loop	2
• Endoscopy	2
– Upper GI	2
– Rigid sigmoidoscopy	2
– Flexible sigmoidoscopy	2
– Colonoscopy	2
– ERCP	2
• Anal surgery	2
– Piles: injection/RBL	2
– Haemorrhoidectomy	2
- Halo	2
- Skin tags	2
• Breast surgery	1
– Wide local excision	1
– Guide wire localised excision	1
– Mastectomy	1
• Laparoscopic surgery	2
– Diagnostic laparoscopy	2
– Laparoscopic cholecystectomy	2
– Laparoscopic appendicectomy	2
• Thyroid surgery	2
– Lobectomy	2
– Total/subtotal thyroidectomy	2
• Tracheostomy	2
– Percutaneous	2
– Surgical	2

7B: General surgery – clinical/technical skills

The following are specific to surgery in adults Core general surgery skills	Required level of supervision
Wound opening:	
• Laparotomy	2
Wound closure:	
• Laparotomy	2
Laparoscopy:	
• Insertion of primary trocar for pnemo-peritonuem	2
• Insertion of secondary trocars	1
• Modified Hassan approach to primary trocar	1
• Laparoscopic retraction	2
• Laparoscopic port closure	2
Rectal examination	2

7C: General surgery – sub-specialty theoretical knowledge

Part II – Sub specialty general surgery – to be identified by sub specialty surgical care practitioners only

Principles of:	Required level of knowledge
Colorectal surgical care practitioners:	
• Right hemicolectomy	2
• Left hemicolectomy procedure	2
• Anterior resection	2
• Abdominal perineal resection	2
• Sigmoidcolectomy	2
• Ileo caecal resection (Crohns Disease)	2
• Panproctocolectomy	2
• Subtotal colectomy	2
• Fistula surgery	2
• Lateral Sphincterotomy	2
• Excision skin tags	2
• Trans anal excision of polyp etc	2
• Trans anal excision of tumour (TEMS)	2
• Pouch surgery	1
Advanced laparoscopic procedures (related to practice):	
• Laparoscopic inguinal hernia repair	2
• Laparoscopic colorectal surgery	2
• Laparoscopic gastrectomy	2
• Laparoscopic splenectomy	2
• Laparoscopic adrenalectomy	2
• Laparoscopic hellers myotomy	2
• Laparoscopic nissen fundoplication	1
• Laparoscopic adrenalectomy	1
Breast surgery: surgical care practitioners:	
• Sentinel node biopsy	2
• Axillary sampling	2
– Axillary dissection	2
Upper GI and hepato biliary surgical care practitioners:	
• Liver surgery	2
– Tumour resection and bypass	2
– Radiofrequecy treatment	2
• Pancreatic surgery	2
– Whipple surgery	2
– Upper endoscopy	2
• Pancreatitis and its complications	2
• Gastrectomy	1
• Oesophagectomy	1

7D: General surgery – sub-specialty clinical/technical skills

The following are specific to surgery in adults	Required level of supervision
Upper GI and hepato biliary surgical care practitioners:	
• Upper GI endoscopy (only if undertaking/undertaken JAG accredited course)	2
Colorectal surgical care practitioners:	
• Flexible sigmoidoscopy (only if undertaking/undertaken JAG accredited course)	2
• Rigid sigmoidoscopy	2
Breast surgery: surgical care practitioners:	
• Breast examination	2
• Core Biopsies	2
• Punch biopsy	2
• Fine needle aspiration	2

8A: Vascular surgery – theoretical knowledge

	Required level of knowledge
Anatomy and physiology of venous system	2
Anatomy and physiology of arterial system	2
Disease of the venous system:	
• Venous hypertension	2
• Venous thromboembolism (VTE)	2
Disease of the arterial system:	
• Peripheral vascular disease	2
• Aneurysm	2
• Trauma	2
• Stroke	2
• Thoracic outlet syndrome	2
Disease of the lymphatic system	2
Assessment and management of arterial disease, including conservative, pharmacological and surgical management	2
Assessment and management of venous disease, including conservative, pharmacological and surgical management	2
Assessment and management of lymphoedema	2
Emergency assessment, treatment and management of:	
• Acute ischaemic limb	2
• Deep Vein Thrombosis	2
Signs and symptoms of vascular disease, including Intermittent Claudication	2
Effects of lifestyle on vascular disease	2
Clinical Investigations:	
• Haematological	2
• Biochemical	2
• Radiological and imaging	
– Hand-held Doppler	2
– Duplex scanning	2
– Magnetic resonance arteriogram (MRA)	2
– CT	2
– Ultrasound	2
• Screening and surveillance	
– AAA	2
– Post EVAR surgery	2
– Post bypass surgery	2
Post-operative complications and management	2

Principles and management of the surgical patient undergoing:	
• Open Abdominal Aortic Aneurysm Repair	2
• Ruptured abdominal aortic aneurysm	2
• Endovascular aneurysm repair (EVAR)	2
• Carotid Endarterectomy	2
• Carotid body tumour	2
• Lower Limb Arterial Reconstructions including Endarterectomy	2
• Bypass surgery	2
Extra-anatomical procedures: Axillo-femoral graft, Fem-fem cross-over graft	2
Radiological intervention, including angioplasty and stenting	2
Arterial embolectomy	2
VTE assessment	2
Open or Endovascular Intervention for Vascular trauma	2
Use of graduated venous compression therapy for venous disease	2
Long saphenous vein surgery including sapheno-femoral disconnection and LSV strip	2
Short saphenous vein ligation	2
LSV harvesting, including SFJ disconnection	2
Avulsion varicose veins surgery	2
Minimally invasive venous procedures for varicose veins:	
• Laser surgery	2
• Endovenous thermal ablation including laser and Radio-frequency	2
• Injection therapy including Foam Sclero-therapy	2
Transthoracic endoscopic cervico-dorsal sympathectomy	2
Cervical rib excision	2
Assessment and management of wounds with a vascular aetiology, including ulceration	2
Renal access:	
• AV Fistula formation	2
• CAPD catheter insertion	2
• Permcath insertion	2

8B: Vascular surgery – clinical/technical skills

Required level of knowledge	
Treatment of varicose veins including:	
• SFJ ligation, long saphenous vein strip	2
• Avulsion of varicose vein	2
• Ablation therapy	2
• Injection sclerotherapy	2
Long saphenous vein harvest, with SFJ disconnection	2
Closing wounds in neck, abdomen and legs	2
Dressing ulcers	2
VAC therapy for ulcers	2
4 layer compression for venous ulcers	2
Vascular examination in particular pulses	2
Ankle-brachial pressure indices	2
Basics of Doppler examination	2

9A: Maxillofacial surgery – theoretical knowledge

Principles of:	Required level of knowledge
Normal anatomy and physiology of the head and neck regions:	
• Jaws	2
• Mouth	2
• Head	2
• Neck	2
Pathology of the:	
• Jaws	2
• Mouth	2
• Head	2
• Neck	2
Principles of aesthetic surgery including the elderly and post-traumatic injuries	2
– Skin grafting	2
– Reconstruction	2
Principles of surgical management of the airway	2
– Trachestomy	2
Understanding pre- and post-operative management of the maxillofacial surgical patient:	
• Ward management of ablative head and neck surgery and reconstruction	2
• Examination and planning of complex facial anomalies like cleft lip and palate and craniofacial surgery	2
• Examination, planning of ablative and reconstructive surgery, including microvascular tissue transfer	2
Clinical investigation of the maxillofacial surgery:	
• Osseo-integration	2
• dental implants – post reconstruction	2
• Surgical management and planning of orthognathic surgery	2
– bimax	2
– Le Fort I,II,III	2
– sagital split	2
Management of the following symptoms:	
• Fractures of the cranio-facial skeleton	2
– Le Fort I,II,III	2
– mandibular fractures	2
– sub chondyl	2
– body angle symphasis parasymphasis	2
• Maxillofacial injuries, including airway and soft tissues	2
Principles of the use of magnification for operating	
– Microvascular anastamosis nerve reconstruction	2

Principles of management of the following conditions:

• Benign and malignant facial skin lesions	2
– Z plasty	2
– rotation flap	2
– wolf graft	2
• Management of facial pain	2
– cryosurgery	2
• Diagnosis and treatment of common surgical and medical conditions of the:	2
– Face	2
– Neck	2
– Mouth	2
– Jaws	2

9B: Maxillofacial surgery – clinical/technical skills

The following are specific to surgery in adults	Required level of supervision
Application of osseo-integrated implants to face, mouth and jaws	1
– Mandible / Maxilla	1
– Zygoma	1
Closure of deep layer tissues – neck region – Skin platisma	1
Pre-fracture fixation	1
Insertion of wires for mandible & maxilla fixation	1
Removal of wires for mandible & maxilla fixation	1
Elevation of fractured zyogomas	1

10A: Otorhinolaryngology surgery – theoretical knowledge

Note: ENT-UK does not see a role for Surgical Care Practitioners in Otolaryngology at this time

Principles of:	Required level of knowledge
Normal anatomy and physiology of the head and neck regions	
• Ear	2
• Nose	2
• Larynx and naso-pharynx	2
Physiology of otorhinolaryngology	2
Understanding pre and post-operative management of the otorhinolaryngology patient:	
• Assessment and management of airway problems	2
• Otology	2
• Rhinology	2
• Laryngology	2
Management of foreign bodies in:	
• Ear	2
• Nose	2
• Larynx and naso-pharynx	2
• Oropharynx and hyper pharynx	2
Clinical investigation of the otorhinolaryngology surgery:	
• Haematological	2
• Biochemical	2
• Histological	2
• Microbiological	2
• Radiological and imaging	2
• Examination of the ear-auroscope	2
• Examination under the microscope – dewax external meatus and mastoid cavity	2
• Suction clearance for otitis externa and insertion of wick	2
• Simple tests for hearing	2
• Simple test of vestibular function	2
• Examination of the neck	2
– fine needle aspirate of masses	2
• Use of the laryngeal mirror, and/or the flexible or rigid endoscope to examine the larynx and laryngoparynx	2

Management of the following symptoms:	
• Epistaxis and its management	2
• Management of facial fractures	2
• Discharging ear	2
• Otalgia and deafness	2
• Nasal obstruction	2
• Rhinorrhoea	2
• 'Sore' throat	2
• Hoarse voice	2
• Difficulty with swallowing	2
• Neck masses	2
• Treatment of otitis externa	2
Familiarity with different types of hearing aids available and the technique of mould impression	2
Principles of management of the following conditions:	
• Reduction of fractured nose	2
• Incision/drainage of quinsy	2
Principles of relevant ENT procedures:	
• Emergency and elective tracheostomy	2
Principles of relevant ENT procedures:	
• Otology	2
– Myringotomy and grommet insertion	2
– Mastoid surgery	2
– Incision/drainage of conchal haematoma	2
– Myringotomy and grommet insertion	2
– Middle ear procedure	2
– Myringoplasty	2
– Mastoid surgery	2
– Stapedectomy	2
– Audiology and vestibular testing	2

Principles of relevant ENT procedures:	
• Rhinology	2
– Rigid nasal endoscopy	2
– Flexible nasal endoscopy and examination of the post nasal space	2
– Examination of the nose – anterior	2
– Suction under endoscopic control of surgical cavity	2
– Insertion and removal of a nasal pick and or balloon for epistaxis	2
– Simple polypectomy	2
– Biopsy of the nose and nasopharynx	2
– Antral washout in the management of acute sinusitis	2
– Drainage of septal haematoma	2
– Endoscopic sinus surgery	2
– Principles of rhinoplasty	2
– Septal surgery	2
– Submucous resection	2
– Reduction of turbinates	2
– Adenoidectomy and tonsillectomy	2
Principles of relevant ENT procedures:	
• Laryngology	2
– Direct laryngoscopy	2
– Biopsy of larynx, pharynx and oral cavity	2
– Incision/drainage of quinsy	2

10B: Otorhinolaryngology surgery – clinical/technical skills

The following is specific to surgery in adults Otology	Required level of supervision
Examination of the ear using otoscope	2
Examination under microscope with microsuction and ability to remove wax from the external auditory meatus	2
Treatment of otitis externa by microsuction and insertion of a medicated dressing	2
Closure of deep layer tissues – neck region	2

11A: Gynaecology – theoretical knowledge

Required level of knowledge	
Normal anatomy and physiology of the female pelvis	2
Detailed normal and altered physiology of the menstrual cycle	2
Physiology of reproduction	2
Understanding pre and post-operative management of the gynaecology patient	2
Clinical investigation of the female genital tract:	
• Haematological	2
• Biochemical	2
• Cytological	2
• Histological	2
• Microbiological	2
• Imaging	2
Management of the following problems:	
• Miscarriage	2
• Ectopic pregnancy	2
• Acute pelvic problems	2
• Menstrual problems	2
• Fertility problems	2
Principles of management of the following conditions:	
• Gynaecological malignancy	2
• Disorders of the vulva	2
• Disorders of the vagina including prolapse	2
• Disorders of the cervix, including CIN and malignancy	2
• Disorders of the uterus including fibroids, uterine polyps, uterine prolapse	2
• Fallopian tube disease	2
• Ovarian disease including cysts and endometriosis	2
Principles of relevant gynaecological procedures:	
• Minor surgery	2
– Skin biopsies	2
– Removal of cervical polyps	2
– Uterine polypectomy	2
– Dilatation of cervix "and curettage"	2
– Biopsy of the cervix	2
– Pipelle biopsy	2
– Evacuation of uterus	2
– Termination of pregnancy and removal of retained products of conception	2

• Intermediate surgery	2
– Hysteroscopy including biopsy and ablative procedures– Laparoscopy including dye insufflation of the tubes	2
– Laparoscopic sterilisation	2
• Major surgery	2
– Prolapse repair	2
– Tension free vaginal tape	2
– Vaginal hysterectomy	2
– Repair of enterocoele	2
– Abdominal procedures on the bladder neck	2
– Abdominal hysterectomy, total and subtotal	2
– Myomectomy	2
– Operations on the Fallopian tube including salpingectomy	2
– Oophorectomy and other procedures on the ovaries	2
– Pelvic adhesiolysis	2
– Laparoscopic procedures on the uterus, tubes and ovaries including adhesiolysis	2

11B: Gynaecology – clinical/technical skills

Required level of supervision	
Suprapubic and urethral catheterisation	2
Laparoscopy – insertion of trocar and pneumo-peritoneum	2
Hysteroscopy	2
Wound opening	
• Laparotomy	2
Wound closing	
• Laparotomy	2
Bimanual examination	2
Minor surgery	2
– Skin biopsies	2
– Removal of cervical polyps	2
– Simple uterine polypectomy	2
– Dilatation of cervix "and curettage"	2
– Pipelle Biopsy	2
– Biopsy of the cervix	2

The Curriculum Framework for the Surgical Care Practitioner was developed by a working party with representatives from the following organisations:

RCS
ADVANCING SURGICAL STANDARDS

ACSA
Association of Cardio-Thoracic Surgical Assistants

AfPP
PROGRESSING SAFER SURGERY

CARDIFF UNIVERSITY
PRIFYSGOL CAERDYDD

IN PARTNERSHIP WITH PLYMOUTH UNIVERSITY

Royal College of Obstetricians & Gynaecologists

Teesside University