Joint Committee on Intercollegiate Examinations

Intercollegiate Specialty Examination in General Surgery

Syllabus Blueprint 2016

The Royal College of Surgeons of Edinburgh
Nicolson Street Edinburgh EH8 9DW
Tel: 0131 662 9222
www.jcie.org.uk

Joint Committee on Intercollegiate Examinations
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Principles for Blueprinting Assessment to the Curriculum in Surgical Specialties

1. Standard educational practice requires a curriculum to include an indication of how each aspect of the syllabus is to be assessed. This “blueprinting” process also shows how each aspect relates to Good Medical Practice.

2. Each specialty syllabus has been mapped to a range of assessments:
    a. CEX
    b. CBD
    c. DOPS
    d. PBA
    e. MSF
    f. Section 1 of the specialty FRCS (written section)
    g. Section 2 of the specialty FRCS (clinical and oral section)

3. This does not imply that the indicated assessments must be used.

4. The indications are not exclusive, and it is possible that other types of assessment which have not been indicated may also be used to assess individual items.

5. In general:
    a. Knowledge will be assessed by Section 1 and Section 2 FRCS and by CBD.
    b. Clinical skills will be assessed by CEX and Section 2 FRCS
    c. The use of scenarios within Section 2 FRCS allows a wide range of clinical skills to be assessed.
    d. Technical skills will be assessed by DOPS and PBA
    e. Professional skills will be assessed by MSF

6. The blueprinting indicates which assessments may be used for each item at any stage through training.

7. The Good Medical Practice domains are:
    1. Knowledge, skills and performance
    2. Safety and quality
    3. Communication, partnership and teamwork
    4. Maintaining trust

ELECTIVE								
	CEX	CBD	DOPS	PBA	MSF	FRCS Section 1	FRCS Section 2	GMP
LESIONS OF SKIN AND SUBCUTANEOUS TISSUES								
OBJECTIVE								
Recognise and appropriately manage malignant skin lesions.								
Basal cell carcinoma: Diagnose and treat appropriately small basal cell carcinomas.								
Malignant melanoma: Diagnose malignant melanoma and refer appropriately.								
Squamous cell carcinoma: Diagnose squamous cell carcinoma and refer appropriately if large								
KNOWLEDGE								
Basal cell carcinoma:								
Anatomy		X				X	X	1
Histopathology		X				X	X	1
Natural history		X				X	X	1
Malignant melanoma:								
Anatomy		X				X	X	1
Histopathology		X				X	X	1
Natural history		X				X	X	1
Staging		X				X	X	1
Squamous cell carcinoma:								
Anatomy		X				X	X	1
Histopathology		X				X	X	1
Natural history of malignant transformation in chronic ulcers		X				X	X	1
CLINICAL SKILLS								
Basal cell carcinoma:								
Assess skin lesion	X						X	1
Biopsy of large skin lesions to plan treatment			X					1
Closure of large defects after excision by split skin grafts, full thickness grafts, flap closure				X				1
Malignant melanoma:								
Assess skin lesion	X						X	1
Indications for wider excision, lymph node biopsy, axillary or groin block dissection based on staging	X						X	1
Squamous cell carcinoma: Assess skin lesion including incisional biopsy	X						X	1
TECHNICAL SKILLS								
Basal cell carcinoma:Malignant skin lesion-excision biopsy (small)			X					1
Malignant melanoma: Malignant skin lesion-excision biopsy melanoma (small)			X					1
Squamous cell carcinoma: Malignant skin lesion-excision biopsy (small)			X					1
ABDOMINAL WALL								
OBJECTIVE								
Management of abnormalities of the abdominal wall, excluding hernia.								
Diagnosis: Ability to diagnose abdominal wall masses.								
Treatment: Ability to manage abdominal wall masses.								
KNOWLEDGE								
Anatomy of the abdominal wall		X				X		1
Pathology of the acute and chronic conditions; Haematoma, Sarcoma, Desmoid Tumours		X				X		1
Principles of management of desmoid tumours and sarcomas		X				X		1
CLINICAL SKILLS								
Ability to determine that a swelling is in the abdominal wall	X						X	1
Initiate appropiate investigation	X	X					X	1
TREATMENT								
Conservative management of haematoma	X	X						1
RETICULO-ENDOTHELIAL SYSTEM								
OBJECTIVE								
Knowledge of general and specialist surgical support needed in the management of conditions affecting the reticulo-endothelial and haemopoetic systems.								
Lymphatic conditions: Knowledge of the general and specialist surgical support needed in the management of conditions affecting the lymphatic system. Simple lymph node biopsy.								
Conditions involving the spleen: Knowledge of the general and specialist surgical support needed in the management of conditions affecting the spleen.								
KNOWLEDGE								
Lymphatic conditions:								
Non Hodgkin's Lymphoma		X				X	X	1
Lymphadenopathy		X				X	X	1
Hodgkin's disease		X				X	X	1
Staging classifications		X				X	X	1
Conditions involving the spleen:								
Indications for elective splenectomy-haemolytic anaemia, ITP, Thrombocytopaenia, myeloproliferative disorders		X				X	X	1
Indications for emergency splenectomy		X				X	X	1
Sequelae of splenectomy		X				X	X	1
Splenic conditions		X				X	X	1
Thrombophilia		X				X	X	1
CLINICAL SKILLS								
Lymphatic conditions:								
Planning appropriate diagnostic tests		X				X		1
Liver biopsy			X					1
Conditions involving the spleen:								
Planning appropriate treatment schedule in consultation with haematologist	X	X						1,3
TECHNICAL SKILLS								
Lymphatic conditions:								
Biopsy-FNA			X					1
Liver biopsy			X					1
Lymph node biopsy-groin, axilla			X					
Conditions involving the spleen:								
Splenectomy				X				1

VENOUS THROMBOSIS AND EMBOLISM								
OBJECTIVE								
Full understanding of prevention and management of Venous thrombosis and Embolism.								
Coagulation: Understanding of the physiology and pathophysiology of coagulation.								
Diagnosis: Knowledge and clinical skills in the common means of diagnosis of Venous thrombosis and Embolism								
Treatment: Ability to treat Venous Thrombosis and Embolism.								
Prophylaxis: Knowledge and clinical skills in common methods of prophylaxis against Venous thrombosis and Embolism								
KNOWLEDGE								
Coagulation:								
Clotting mechanism (Virchow Triad)		X				X	X	1
Effect of surgery and trauma on coagulation		X				X	X	1
Tests for thrombophilia and other disorders of coagulation		X				X	X	1
Diagnosis:								
Methods of investigation for suspected thromboembolic disease		X				X	X	1
Treatment:								
Anticoagulation, heparin and warfarin		X				X	X	1
Role of V/Q scanning, CT angiography and thrombolysis		X				X	X	1
Place of pulmonary embolectomy		X				X	X	1
Prophylaxis:								
Detailed knowledge of methods of prevention, mechanical and pharmacological		X				X	X	1
CLINICAL SKILLS								
Coagulation: Recognition of patients at risk		X					X	1,2
Diagnosis: Awareness of symptoms and signs associated with pulmonary embolism and DVT	X	X					X	1
Treatment:Initiate and monitor treatment		X					X	1
Prophylaxis:Awareness at all times of the importance of prophylaxis		X					X	1,2
GENETIC ASPECTS OF SURGICAL DISEASE								
OBJECTIVES								
Basic understanding of genetically determined diseases.								
Endocrine: Basic understanding of the influence of genetics on endocrine disease.								
Colorectal: Basic understanding of the influence of genetics on colorectal cancer development								
Breast: Basic understanding of the influence of genetics of breast cancer development.								
Upper GI/HPB: Basic understanding of the influence of genetics in upper GI disease.								
Clinical and molecular genetics: Basic understanding of the principles of genetics								
KNOWLEDGE								
Endocrine								
Thyroid, Parathyroid, Pancreas and adrenal								
Principal genetically influenced endocrine diseases and syndromes, MEN I, MEN II,		X				X	X	1
Colorectal:		X				X	X	
Outline knowledge of genetic changes which predispose to colorectal cancer including familial adenomatous polyposis, HNPCC and other polyposis syndromes		X				X	X	1
Breast:								
Outline knowledge of genetic changes which predispose to breast cancer; BRCA1, BRCA2, P53		X				X	X	1
Upper GI/HPB:								
Principal genetically influenced upper gastrointestinal diseases and syndromes, including Duodenal polyposis, familial gastric cancer, Peutz-Jeger syndrome and polycystic disease of the liver		X				X	X	1
Clinical and molecular genetics:								
Modes of inheritance		X				X	X	1
Genetic Testing		X				X	X	1,3
Screening		X				X	X	1,2,3
Prophylactic intervention		X				X	X	1,2
Therapeutic intervention		X				X	X	1
Ethics		X				X	X	1,2,4
ONCOLOGY FOR SURGEONS								
OBJECTIVE								
The basic understanding of the principles of Surgical Oncology								
The knowledge of risk factors and presentation of common cancers								
The knowledge and practice of the basics of management for common cancers								
The understanding of the ways of evaluating different cancer treatments								
KNOWLEDGE								
Cancer epidemiology and presentations								
Aetiology and epidemiology of malignant disease		X				X	X	1
Environmental and genetic factors in carcinogenesis		X				X	X	1
Evaluate risk factors for malignant disease		X				X	X	1
Terminology in epidemiology		X				X	X	1
Staging, prognosis and treatment planning								
Prognosis and natural history of malignant disease		X				X	X	1
Mechanisms and patterns in local, regional and distant spread		X				X	X	1
Differences in course between hereditary and sporadic cancers		X				X	X	1
Diseases predisposing to cancer e.g. inflammatory bowel disease		X				X	X	1
Prognostic/predictive factors		X				X	X	1
Genetics of hereditary malignant diseases		X				X	X	1
Cancer Biology								
Cancer biology: cell kinetics, proliferation, apoptosis, balance between normal cell death/proliferation; angiogenesis and lymphangiogenesis; genome maintenance mechanisms to prevent cancer; intercellular and intermolecular adhesion mechanisms and signalling pathways; potential effects of surgery and surgery-related events on cancer biology (e.g. angiogenesis)		X				X	X	1
Tumour immunology								
Tumour immunology: cellular and humoral components of the immune system; regulatory mechanisms of immune system; tumour antigeneity; immune mediated antitumour cytotoxicity; effects of cytokines on tumours; effects of tumours on antitumour immune mechanisms; potential adverse effects of surgery, surgery-related events (e.g. blood transfusion) on immunologic responses		X				X	X	1
Basic principles of cancer treatments and their evaluation								

Basic principles of cancer treatment: surgery; radiotherapy; chemotherapy; endocrine therapy; immunotherapy		X				X	X	1
Surgical pathology		X				X	X	1
Evaluation of response to treatment(s)		X				X	X	1
Adverse effects of treatment(s)		X				X	X	1
Interactions of other therapies with surgery		X				X	X	1
Ability to evaluate published clinical studies		X				X	X	1
Relevance of statistical methods; inclusion/exclusion criteria of study objectives; power of the study; intention to treat; number needed to treat; relative and absolute benefit; statistical versus clinical significance		X				X	X	1
CLINICAL SKILLS								
Cancer epidemiology and presentations								
Recognise symptoms and signs of cancer	X	X					X	1
Initiate appropriate diagnostic and staging investigations for common solid tumours		X					X	1
Staging, prognosis and treatment planning								
Perform prognostic assessment for patients with common solid tumours		X					X	1
Define the role of surgery for given common solid tumours		X					X	1
Participation in multi-disciplinary team discussion	X	X			X			1,3
Undertake adequate pre-operative work-up		X					X	1
Manage post-operative care		X					X	1
Decide on and perform adequate follow-up		X					X	1
Diagnose, score and treat side effects and complications of surgical treatment		X					X	1
Recognise common side effects of other treatment modalities		X					X	
Basic principles of cancer treatments and their evaluation								
The conduct of clinical studies					X	X		2
Design and implement a prospective database (part of audit skills)		X						2
Elementary principles in biostatistics and commonly used statistical methods (parametric, versus non parametric etc.)		X						
Ethical and legal aspects of research		X				X		2,4
Present local audits; publication, presentation of case reports					X			2
TECHNICAL SKILLS								
Staging, prognosis and treatment planning								
Malignant skin lesion-excision biopsy			X					
Lymph node biopsy-groin,axilla			X					
Central venous line insertion			X					
Laparotomy/laparoscopy				X				
ELECTIVE HERNIA								
OBJECTIVE								
Diagnosis + management, including operative management of primary and recurrent abdominal wall hernia								
KNOWLEDGE								
Anatomy of inguinal region including inguinal canal, femoral canal, abdominal wall and related structures e.g. adjacent retroperitoneum and soft tissues.		X				X	X	1
Relationship of structure to function of anatomical structures.		X				X	X	1
Natural history of abdominal wall hernia including presentation, course and possible complications		X				X	X	1
Treatment options								
Current methods of operative repair including open mesh, laparoscopic mesh and posterior wall plication, to include the underlying principles, operative steps, risks, benefits, complications and process of each		X				X	X	1
CLINICAL SKILLS								
Diagnose and assess a patient presenting with abdominal wall hernia, including inguinal, femoral, epigastric, umbilical, paraumbilical, rare hernias (such as obturator and Spigelian hernias) and incisional hernias	X	X					X	1 1 1
Supervise the postoperative course in hospital and on follow-up		X			X			1,3,4
TECHNICAL SKILLS								
Hernia repair-femoral				X				1
Hernia repair-incisional				X				1
Hernia repair-incisional recurrent				X				1
Hernia repair-inguinal				X				1
Hernia repair-inguinal recurrent				X				1
Hernia repair-umbilical/paraumbilical				X				1
Hernia repair-epigastric				X				1
SURGICAL NUTRITION								
OBJECTIVES								
Recognise the need for artificial nutritional support, assess whether this is appropriate and manage treatment with enteral an parenteral nutrition, in partnership with nutritional support team or as a member								
Specialist nutrition - Recognise the need for artificial nutritional support, assess whether this is appropriate and manage treatment with enteral or parenteral nutrition as leader or member of the nutritional support team								
KNOWLEDGE								
Methods of nutritional screening and assessment		X				X	X	1
Physiology of the GI tract		X				X	X	1
Pathophysiology of the GI tract including short bowel syndrome, high output stoma, enterocutaneous fistulae, pancreatic insufficiency		X				X	X	1
Consequences of obesity and medical and surgical options for management, including complications		X				X	X	1
Causes and consequences of nutritional deficiency, including eating disorders		X				X	X	1
Body composition and metabolic requirements in health and disease		X				X	X	1
Indications for nutritional intervention		X				X	X	1
Indications + options for nutritional support : Enteral vs parenteral		X				X	X	1
Complications of enteral and parenteral nutrition and their management		X				X	X	1
Refeeding syndrome		X				X	X	1
Causes, diagnosis, and management of enterocutaneous fistulae		X				X	X	1
Appropriate composition and skills in a nutrition support team		X				X	X	1,3
Legal and ethical aspects of nutritional support		X				X	X	1,3,4
CLINICAL SKILLS								

Assessment of GI tract function, in particular of absorption	X	X					X	1
Assessment of nutritional status, including use of screening tools	X	X					X	1
Assessment of causes of weight loss, including malabsorption and psychological issues	X	X					X	1
Decision making about appropriate means of artificial nutritional support	X	X					X	1
Assessment of patient for enteral nutrition; choice of tube(NG; NJ; PEG PEJ; jejunostomy) and feed type/amount	X	X					X	1
Assessment of patient for parenteral nutrition; choice of intravenous catheter and feed type	X	X					X	1
Prescription of appropriate enteral or parenteral feed	X	X					X	1
Care of the patient on enteral and parenteral support, monitoring of outcome and management of complications	X	X					X	1
Assessment of obesity and appropriate referral	X	X					X	1,3
TECHNICAL SKILLS								
Insertion of nasogastric tube and confirmation of position			X					
Insertion of nasojejunal tube, using bedside imager, radiological screening or endoscopy			X					
PEG tube insertion / replacement, including jejunal extensions			X					
Formation of feeding enterostomy (open / lap)			X					
Vascular access for parenteral feeding, including peripheral access, PICC and tunnelled or cuffed central lines or implantable ports			X					
OUTPATIENT SKILLS								
OBJECTIVE								
Assess individual outpatients adequately, manage a single outpatient clinic.								
Individual patient assessment: Ability to assess individual outpatients.								
Organise a consultant led OP service								
KNOWLEDGE								
Individual patient assessment:								
Relevant anatomy, physiology and clinical knowledge for the system involved		X				X	X	
Organisation of outpatient service:								
Understanding of the administrative system of the hospital		X			X			2
Relevant guidelines for disease management		X				X		1,2
CLINICAL SKILLS								
Individual patient assessment:								
Focused history taking and examination.	X						X	1
Organise appropriate investigations.		X					X	1
Management of an outpatient clinic:								
Ability to allocate patients to appropriate staff members					X			3,4
Ability to prioritise urgent patient investigations and operation		X			X			3,4
Organisation of outpatient service:Prioritisation of patient appointments					X			3,4
TECHNICAL SKILLS								
Individual patient assessment:								
Sigmoidoscopy-rigid.			X					1
Haemorrhoids-OP treatment(injection/banding or infrared coagulation)			X	X				1
LAPAROSCOPIC SURGERY								
Objective								
To understand the principles of laparoscopic surgery including technical aspects and common complications								
Knowledge								
Physiology of pneumoperitoneum						X	X	1
Technology of video imaging, cameras and insufflator				X			X	1
Laparoscopic instruments, clips, staplers and port types				X			X	1
Use and dangers of diathermy				X		X	X	1
Management of equipment failure				X				1
Anaesthetic problems in laparoscopic surgery						X	X	1
Informed consent for laparoscopic procedures	X						X	1
Recognition and management of laparoscopic complications				X		X	X	1
Clinical Skills								
Pre and postoperative management of laparoscopic cases		X					X	1
Port complications				X			X	1
Technical Skills								
Closed and open techniques for port insertion			X	X				1
Diagnostic laparoscopy			X	X				1
Laparoscopic suturing and knotting				X				1
Control of laparoscopic bleeding				X				1

EMERGENCY								
	CEX	CBD	DOPS	PBA	MSF	FRCS Section1	FRCS Section 2	GMP
SUPERFICIAL SEPSIS INCLUDING NECROTISING INFECTIONS								
OBJECTIVE								
Diagnosis and basic management of superficial sepsis, gas gangrene and other necrotising infections.								
KNOWLEDGE								
Infected sebaceous cyst / carbuncle								
Natural history		X				X	X	1
Bacteriology		X				X	X	1
Associated medical conditions		X				X	X	1
Superficial abscess								
Aetiology		X				X	X	1
Natural history		X				X	X	1
Bacteriology		X				X	X	1
Cellulitis								
Aetiology		X				X	X	1
Associated medical conditions		X				X	X	1
Immunocompromised patients		X				X	X	1
Bacteriology		X				X	X	1
Antibiotic therapy		X				X	X	1
Infected ingrowing toenail / paronychia								
Aetiology		X				X	X	1
Bacteriology		X				X	X	1
Atherosclerosis		X				X	X	1
Diabetes		X				X	X	1
Gas gangrene and other Necrotising Infections								
Natural history		X				X	X	1
Vulnerable individuals		X				X	X	1
Associated medical conditions Diabetes, atherosclerosis, Steroids and immunocompromised		X				X	X	1
Bacteriology and toxins		X				X	X	1
Mechanisms of septic shock		X				X	X	1
Appropriate antibiotic therapy		X				X	X	1
Necrotising fasciitis		X				X	X	1
CLINICAL SKILLS								
Infected sebaceous cyst / carbuncle								
History and examination	X						X	1
Medical management of diabetes periop	X						X	1
Superficial abscess History and Examination	X						X	1
Breast abscess - Arrange imaging modalities	X						X	1
Cellulitis								
History and examination	X						X	1
IV therapy	X						X	1
Infected ingrowing toenail / paronychia	X						X	1
Warning signs of necrotising fasciitis	X						X	1
TECHNICAL SKILLS								
Infected sebaceous cyst / carbuncle			X					1
Abscess drainage			X					1
Benign skin or subcutaneous lesion - excision biopsy			X					1
Aspiration of breast abscess			X					1
Infected ingrowing toenail / paronychia								
Nail avulsion / wedge resection / phenolisation			X					1
Radical excisional surgery								
Fournier's gangrene, necrotising fasciitis, gas gangrene, debridement, diabetic foot			X	X				1
PERITONITIS / ACUTE ABDOMEN (combined)								
OBJECTIVE								
Recognition and management of peritonitis.								
KNOWLEDGE								
Anatomy of abdomen and pelvis		X				X	X	1
Aetiology		X				X	X	1
Differential diagnosis		X				X	X	1
Pathophysiology of shock		X				X	X	1
Pathophysiology of peritonitis and sepsis - generalised and intraperitoneal, septic shock		X				X	X	1
Patholophysiology of obstruction / strangulation		X				X	X	1
Conditions which do not require surgery		X				X	X	1
CLINICAL SKILLS								
History and examination	X	X					X	1
Recognition of severity of disease	X	X			X		X	1
Investigation	X	X				X	X	1
Resuscitation, antibiotics, invasive monitoring	X	X				X	X	1
Treat symptoms	X	X					X	1
Recognition of success or failure of non-operative treatment	X	X			X		X	1,2
Ability to perform emergency laparotomy	X	X						1
Indication for and timing of intervention	X	X					X	1
Recognition and management of complications	X	X			X		X	1,2
TECHNICAL SKILLS								
Central line insertion			X					1
Laparotomy / laparoscopy				X				1
Gastro / duodenal - perforated peptic ulcer closure				X				1
Hartmann's procedure				X				1
Cholecystectomy				X				1
Cholecystostomy				X				1
ACUTE INTESTINAL OBSTRUCTION								
OBJECTIVE								
Recognise and manage most cases of intestinal obstruction								

KNOWLEDGE								
Abdominal anatomy		X				X	X	1
Aetiology of intestinal obstruction		X				X	X	1
Pathophysiology of shock / sepsis		X				X	X	1
Differential diagnosis		X				X	X	1
Treatment options		X				X	X	1
CLINICAL SKILLS								
History and examination	X	X					X	1
Resuscitation	X	X					X	1
Investigation	X	X				X	X	1
Nutritional support	X	X				X	X	1
Differentiate between mechanical obstruction and pseudo-obstruction	X	X					X	1
Ability to perform emergency laparotomy	X	X						1
TECHNICAL SKILLS								
Central line insertion			X					1
Laparotomy and division of adhesions				X				1
Small bowel resection				X				1
Colectomy-left				X				1
Colectomy-right				X				1
Colectomy-transverse				X				1
Colectomy-sigmoid				X				1
Colectomy-total+ileostomy				X				1
Colostomy-construction				X				1
Ileostomy-construction				X				1
ACUTE APPENDICITIS								
OBJECTIVE								
Recognition and management of acute appendicitis								
KNOWLEDGE								
Anatomy of abdomen and pelvis		X				X	X	
Natural history of appendicitis		X				X	X	1
Pathophysiology of appendicitis		X				X	X	1
Effects of overwhelming sepsis and management		X				X	X	1
CLINICAL SKILLS								
History and examination		X					X	1
Investigation		X					X	1
Resuscitation		X					X	1
Postoperative management		X					X	1
TECHNICAL SKILLS				X				
Appendicectomy - open / lap								1
STRANGULATED HERNIA								
OBJECTIVES								
Recognise and treat most common strangulated hernias								
Strangulated inguinal hernia: Recognise and treat strangulated inguinal hernia.								
Strangulated femoral hernia: Recognise and treat strangulated femoral hernia								
Strangulated incisional hernia: Recognise and treat strangulated incisional hernia								
Strangulated internal hernia: Recognise and treat strangulated hernia.								
KNOWLEDGE								
Strangulated inguinal hernia								
Anatomy - Inguinal and femoral canal		X				X	X	1
Anatomy - Abdominal wall, retroperitoneum, soft tissues		X				X	X	1
Pathophysiology		X				X	X	1
Postoperative complications		X				X	X	1
Strangulated femoral hernia								
Anatomy - Inguinal and femoral canal		X				X	X	1
Anatomy - Abdominal wall, retroperitoneum, soft tissues		X				X	X	1
Pathophysiology		X				X	X	1
Postoperative complications		X				X	X	1
Strangulated incisional hernia								
Anatomy of abdominal wall		X				X	X	1
Pathophysiology		X				X	X	1
Postoperative complications		X				X	X	1
Strangulated internal hernia								
Anatomy								1
Pathophysiology								1
Postoperative complications								1
CLINICAL SKILLS								
History and examination	X	X					X	1
Resuscitation	X	X					X	1
Investigation of possible strangulated hernia								
Inguinal		X				X	X	1
Femoral		X				X	X	1
Incisional		X				X	X	1
Internal		X				X	X	1
Operative strategy								
Strangulated inguinal hernia		X					X	1
Strangulated femoral hernia		X					X	1
Strangulated incisional hernia		X					X	1
Strangulated internal hernia		X					X	1
Postoperative complications		X					X	1
TECHNICAL SKILLS								
Small bowel resection				X				1
Repair - inguinal hernia				X				1
Repair - femoral hernia				X				1
Repair - incisional hernia				X				1
Repair internal hernia				X				1

ACUTE GYNAECOLOGICAL DISEASE								
OBJECTIVE								
To recognise, manage and appropriately refer acute gynaecological disease.								
KNOWLEDGE								
Pelvic inflammatory disease/Endometriosis/salpingitis								
Anatomy of pelvis		X				X	X	1
Physiology of pelvic organs		X				X	X	1
Infective intra-abdominal conditions		X				X	X	1
Appropriate management - antibiotics - referal pathway		X				X	X	1,3
Obstruction secondary to ovarian carcinoma								
Anatomy of pelvis		X				X	X	1
Physiology of pelvic organs		X				X	X	1
Investigation of obstructed colon		X				X	X	1
Management of ovarian carcinoma		X				X	X	1
Intra-abdominal haemorrhage from ruptured ovarian cyst / ectopic pregnancy								
Anatomy of pelvis		X				X	X	1
Physiology of pelvic organs		X				X	X	1
Management of diagnosed condition		X				X	X	1
Iatrogenic injury								
Anatomy of pelvis		X				X	X	1
Physiology of pelvic organs		X				X	X	1
CLINICAL SKILLS								
Pelvic inflammatory disease/endometriosis/salpingitis								
History and examination	X						X	1
Organise pelvic ultrasound / pregnancy test	X						X	1
CT scan / tumour markers	X					X	X	1
Ability to perform diagnostic laparoscopy / laparotomy				X				1
Obstruction secondary to ovarian carcinoma								
History and examination	X						X	1
Nonoperative management	X						X	1
Perform emergency laparotomy				X				1
Intra-abdominal haemorrhage of gynaecological origin								
History and examination	X						X	1
Organise pelvic ultrasound and pregnancy test	X						X	1
Ability to perform diagnostic laparotomy / laparoscopy				X				1
Iatrogenic injury								
Recognition of nature and extent of injury				X				1
Ability to perform emergency laparotomy				X				1
TECHNICAL SKILLS								
Laparotomy / laparoscopy				X				1
Hartmann's procedure				X				1
Sigmoid colectomy				X				1
GASTROINTESTINAL BLEEDING (see also acute gastric bleeding)								
OBJECTIVE								
Assessment of all cases of gastrointestinal bleeding, management and referral to subspecialists as needed.								
Blood loss and Hypotension:Understanding and management of blood loss.								
Recognition of cause: Assessment of likely cause of GI bleeding								
Treatment: Assessment and management of all cases of gastrointestinal bleeding with referral to subspecialist if needed.								
Postoperative care: Post-op care of patients who have had surgery for GI bleeding.								
Complications: Manage complications after GI bleeding								
KNOWLEDGE								
Blood loss and hypotension								
Physiology of hypovolaemia		X				X	X	1
Coagulopathy		X				X	X	1
Recognition of all causes of GI bleeding		X				X	X	1
Treatment								
Treatment options		X				X	X	1
Indications for operation		X					X	1
Role of endoscopic procedures and therapeutic radiology		X				X	X	1
Postoperative care - fluid balance		X				X	X	1
Complications		X				X	X	1
CLINICAL SKILLS								
Blood loss and hypotension								
Resuscitation of hypotensive patient	X	X					X	1
HDU care		X					X	1
Cause of bleeding								
Clinical assessment	X						X	1
Organise appropriate endoscopy or other investigation	X							1,3
Treatment - appropriate surgery		X					X	1
Postoperative care								
Analgesia		X					X	1
Nutrition		X					X	1
Recognition of complications		X					X	1
Complications		X					X	1
Rebleeding and postoperative problems - early recognition		X					X	1
Treatment of complications		X					X	1
TECHNICAL SKILLS								
Diagnostic gastroscopy				X				
Flexible sigmoidoscopy				X				
COMPLICATIONS OF ABDOMINAL SURGERY								
OBJECTIVE								
Recognition and management of septic complications of GI surgery								

Recognition and management of obstructive complications of GI surgery								
Recognition and management of bleeding complications of GI surgery								
KNOWLEDGE								
Risk factors for major complications and the differential risk of further interventions		X				X	X	1
Septic complications of GI anastomosis		X				X	X	1
Abdominal abscesses after GI surgery		X				X	X	1
Bowel obstruction after GI surgery		X				X	X	1
Physiological and haematological consequences of post op bleeding		X				X	X	1
Biliary leakage after cholecystectomy		X				X	X	1
Intestinal fistula		X				X	X	1
Surgeons role in multiple organ failure		X				X	X	1
CLINICAL SKILLS								
Logical and prioritised approach to complications	X						X	1
Assessment of the post operative GI surgical patient with emergency complications	X						X	1
Assessment of the patient with multiple organ failure from a surgical perspective	X						X	1
Interpretation of Investigations	X						X	1
Management decisions for early and late complications of GI surgery presenting as emergencies		X					X	1
Involve specialists and colleagues appropriately, including referral for embolisation		X					X	1,3
TECHNICAL SKILLS								
Re-laparotomy				X				1
Damage control laparotomy for sepsis / MOF				X				1
Laparotomy for identification and control of post op bleeding, including packing				X				1
Surgery for anastomotic leak (take down, defunction, drain)				X				1
Laparostomy / open abdomen				X				1
Surgical tube gastrostomy (Stamm etc)				X				1
ABDOMINAL PAIN IN CHILDHOOD								
OBJECTIVES								
The ability to assess and manage a child with abdominal pain including appendicectomy.								
KNOWLEDGE								
Pattern of symptoms and relation to likely pathology and age of child		X				X	X	1
Differential diagnosis		X				X	X	1
Place and value of investigations		X				X	X	1
Place of operative intervention, and associated outcomes		X				X	X	1
CLINICAL SKILLS								
Ability to assess ill child	X						X	1,3
Ability to form a viable investigation and treatment plan	X						X	1
TECHNICAL SKILLS								
Appendicectomy				X				1
Laparotomy/laparoscopy				X				1
INTUSSUSCEPTION								
Objective								
The ability to assess and manage a child with intussusception including referral for radiological or surgical reduction								
Knowledge								
Pattern of symptoms and relation to likely pathology and age of child		X				X	X	1
Role of radiology both for diagnosis and interventional management		X				X	X	1
Differential diagnosis		X				X	X	1
Clinical Skills								
Ability to assess child and recognise severity of illness	X						X	1
Ability to take appropriate resuscitative measures and form a viable investigation and treatment plan	X						X	1,3
Treatment Plan								
Ability to communicate with all relevant groups, including referral for specialist treatment					X			1,3
Reduction of intussusception			X					1
ACUTE GROIN CONDITION								
Objective								
The ability to assess and manage a child with incarcerated inguinal hernia								
The ability to assess and manage a child with an acute scrotal condition								
Knowledge								
Inguinal Hernia								
Developmental anatomy		X				X	X	1
Natural history		X				X	X	1
Indications for and outcomes of surgery		X				X	X	1
Acute scrotum								
Natural history		X				X	X	1
Place of conservative management		X				X	X	1
Indications for and outcomes of surgery		X				X	X	1
CLINICAL SKILLS								
Inguinal Hernia								
Ability to assess child and reach appropriate diagnosis	X						X	1,3
Ability to form a treatment plan and refer on when necessary	X						X	1,3
Acute scrotum								
Ability to access child and reach appropriate diagnosis	X						X	1,3
Ability to form a treatment plan and refer on when necessary	X						X	1,3
TECHNICAL SKILLS								

Inguinal hernia								
Inguinal hernia (not neonatal) operation				X				1
Acute scrotum								
Operation for testicular torsion				X				1
ACUTE DYSPHAGIA								
OBJECTIVES								
Assessment and initial management of patients presenting with acute dysphagia								
KNOWLEDGE								
Applied Anatomy								
Oesophagus and levels of constriction		X				X	X	1
Aetiology								
Carcinoma, peptic stricture, achalasia		X				X	X	1
CLINICAL SKILLS								
History and Examination	X						X	1,3
Investigation - Endoscopy; CT	X						X	1
Initial symptomatic management	X						X	1
Referral to specialist unit for definitive management	X						X	1,3
TECHNICAL SKILLS								
Endoscopy				X				1
Endoscopic palliation incl stenting				X				1
OESOPHAGEAL VARICES								
OBJECTIVES								
Assessment, initial and emergency management of patients presenting with oesophageal varices								
KNOWLEDGE								
Anatomy		X				X	X	1
Pathophysiology								
Aetiology of portal hypertension		X				X	X	1
Clinical presentation		X				X	X	1
Diagnosis		X				X	X	1
Treatment options								
Endoscopic - injection, banding; Sengstaken tube		X				X	X	1
Medical treatment		X				X	X	1
Porto-systemic shunt - TIPSS		X				X	X	1
Indications for surgery		X				X	X	1
Complications								
Child's classification of liver disease		X				X	X	1
CLINICAL SKILLS								
History and Examination	X						X	1,3
Investigation - Endoscopic assessment	X						X	1
Resuscitation	X						X	1
Decision making	X	X					X	1
Non-operative treatment - sclerotherapy / banding		X					X	1
Referral to specialist unit for definitive management		X			X			1,3
Operative options								
Porto-caval shunt; Oesophageal transection		X				X	X	1
Postoperative management		X				X	X	1
TECHNICAL SKILLS								
Endoscopy				X				1
Variceal injection			X					1
Balloon tamponade			X					1
BOERHAAVE'S								
OBJECTIVES								
Assessment and initial management of patients presenting with Boerhaave's								
KNOWLEDGE								
Anatomy		X				X	X	1
Pathophysiology - aetiology		X				X	X	1
Clinical presentation		X				X	X	1
Investigations - contrast radiology		X				X	X	1
Complications - empyema		X				X	X	1
CLINICAL SKILLS								
History and Examination	X						X	1,3
Investigation	X	X					X	1
Decision making	X	X					X	1
Non-operative treatment	X	X					X	1
Referral to specialist unit for definitive management		X			X		X	1,3
Interventional options - primary repair, nutritional support		X					X	1
Postoperative management		X					X	1
TECHNICAL SKILLS								
Endoscopy				X				1
Thoracotomy + non-resectional management				X				1
Oesophagectomy				X				1
IATROGENIC OESOPHAGEAL PERFORATION								
OBJECTIVES								
Assessment and initial management of patients presenting with iatrogenic oesophageal perforation								
KNOWLEDGE								
Anatomy - Oesophagus and mediastinal relationships		X				X	X	1
Clinical presentation - Post-instrumentation		X				X	X	1
Investigation - Contrast radiology		X				X	X	1
Pathophysiology - Mediastinitis		X				X	X	1
Complications - Mediastinitis		X				X	X	1

CLINICAL SKILLS								
History and Examination	X						X	1,3
Investigation	X	X					X	1
Decision making		X					X	1
Non-operative treatment - Pleural drainage; antibiotics; nutritional support		X					X	1
Interventional options		X					X	1
Referral to specialist unit for definitive management		X			X		X	1,3
Postoperative management		X					X	1
TECHNICAL SKILLS								
Endoscopy				X				1
Endoscopic interventions incl stent				X				1
Thoracotomy + lavage				X				1
Oesophagectomy				X				1
ACUTE GASTRIC DILATION								
OBJECTIVES								
Assessment, initial and emergency management of patients presenting with acute gastric dilatation								
KNOWLEDGE								
Applied Anatomy		X				X	X	1
Pathophysiology								
Spontaneous; postsplenectomy		X				X	X	1
Clinical presentation		X				X	X	1
Complications		X				X	X	1
CLINICAL SKILLS								
History and Examination	X	X					X	1,3
Investigation - contrast radiology, CT	X	X					X	1
Resuscitation		X					X	1
Decision making		X					X	1
Non-operative treatment NG aspiration		X					X	1
Referral to specialist unit for definitive management		X					X	1,3
Operative options		X					X	1
Postoperative management		X					X	1
TECHNICAL SKILLS								
NG tube insertion			X					1
Endoscopy				X				1
Gastrectomy				X				1
ACUTE GASTRIC HAEMORRHAGE								
OBJECTIVES								
Assessment, initial and emergency management of patients presenting with upper GI haemorrhage								
KNOWLEDGE								
Anatomy		X				X	X	1
Pathophysiology		X				X	X	1
Differential diagnosis - Benign ulcer; cancer; vascular malformation; GIST		X				X	X	1
Complications - hypovolaemic shock		X				X	X	1
CLINICAL SKILLS	X							
History and Examination	X	X					X	1,3
Investigation - endoscopy		X					X	1
Resuscitation - management of hypovolaemic shock		X					X	1
Decision making - indications for intervention		X					X	1
Referral to specialist unit for definitive management		X					X	1,3
Non-operative treatment - sclerotherapy		X					X	1
Operative options		X					X	1
Postoperative management - rebleeding							X	1
TECHNICAL SKILLS								
Endoscopy				X				1
Endoscopic therapy				X				1
Gastrotomy + non-resectional treatment - histology				X				1
Partial gastrectomy				X				1
Total gastrectomy				X				1
ACUTE PERFORATION								
OBJECTIVES								
Diagnosis and management of perforated peptic ulcer.								
Diagnosis and preop management: Diagnosis of perforated peptic ulcer and assess for operation								
Operative management:Operation for perforated peptic ulcer.								
Postoperative management: postoperative management of patients who have had surgery for perf peptic ulcer								
KNOWLEDGE								
Anatomy		X				X	X	1
Pathophysiology		X				X	X	1
Differential diagnosis - perf DU, GU, Ca		X				X	X	1
Complications - subphrenic abscess		X				X	X	1
CLINICAL SKILLS								
History and Examination - peritonitis	X	X					X	1,3
Investigation	X	X					X	1
Resuscitation		X					X	1
Decision making - comorbidity		X					X	1
Operative options - closure, local excision, resection		X					X	1
Postoperative management		X					X	1
TECHNICAL SKILLS								
Laparoscopy				X				1
Local treatment, ulcer closure or excision				X				1
Partial gastrectomy				X				1
Total gastrectomy				X				1

ACUTE GASTRIC VOLVULUS								
OBJECTIVES								
Assessment and initial management of patients presenting with acute gastric volvulus								
KNOWLEDGE								
Applied Anatomy - para-oespohageal hernia		X				X	X	1
Pathophysiology		X				X	X	1
Clinical presentation		X				X	X	1
Investigation - contrast radiology, CT		X				X	X	1
Complications - gastric necrosis		X				X	X	1
CLINICAL SKILLS								
History and Examination		X	X				X	1,3
Investigation		X	X				X	1
Resuscitation - fluid			X				X	1
Decision making - indications for surgery			X				X	1
Referral to specialist unit for definitive management			X				X	1,3
Operative options - endoscopic, urgent or delayed surgery			X				X	1
Postoperative management			X				X	1
TECHNICAL SKILLS								
Endoscopy				X				1
Gastropexy				X				1
Hiatus hernia repair				X				1
Total Gastrectomy				X				1
GALLSTONE DISEASE								
OBJECTIVES								
Diagnosis and management of acute gallstone disease, including operation.								
Acute gall stone disease including acute cholecystitis, empyema, acute biliary colic and cholangitis								
KNOWLEDGE								
Anatomy		X				X	X	1
Pathophysiology		X				X	X	1
Microbiology		X				X	X	1
Complications								
Acute cholecystitis		X				X	X	1
Empyema		X				X	X	1
Mucocoele		X				X	X	1
Acute pancreatitis		X				X	X	1
Chronic cholecystitis		X				X	X	1
Biliary colic		X				X	X	1
Common bile duct stone		X				X	X	1
Obstructive jaundice, all causes including gall stones, tumour and inflammatory conditions		X				X	X	1
Cholangitis		X				X	X	1
Gall stone ileus		X				X	X	1
Gall bladder cancer		X				X	X	1
Postoperative problems								
Bile duct injury		X				X	X	1
CLINICAL SKILLS								
History and Examination - elective, acute, emergency	X						X	1
Investigation - U/S, ERCP, MRCP, CT	X	X					X	1
Resuscitation		X					X	1
Decision making		X					X	1
Non-operative treatment - ERCP, U/S cholecystotomy		X					X	1
Operative options - lap chole		X					X	1,2
Postoperative management		X					X	1,2
TECHNICAL SKILLS								
Cholecystectomy - lap / open				X				1
Cholecystostomy				X				1
Exploration CBD				X				1
Hepaticodocho-jejunostomy				X				1
ACUTE PANCREATITIS								
OBJECTIVES								
Diagnosis and management of most patients with acute pancreatitis								
KNOWLEDGE								
Applied Anatomy		X				X	X	1
Pathophysiology - scoring systems		X				X	X	1
Microbiology		X				X	X	1
Clinical presentation		X				X	X	1
Investigations - CT, ERCP		X				X	X	1
Complications		X				X	X	1
CLINICAL SKILLS								
History and Examination	X						X	1
Investigation	X	X					X	1
Resuscitation		X					X	1
Decision making		X					X	1
Non-operative treatment incl nutrition, use of antibiotics		X					X	1
Interventional options - ERCP, radiological drainage		X					X	1
Postoperative management								
Abscess; Pseudocyst; Haemorrhage		X					X	1
TECHNICAL SKILLS								
Cholecystectomy				X				1
Exploration CBD				X				1
ERCP				X				1
Necrosectomy				X				1
Pseudocyst drainage				X				1

CHRONIC PANCREATITIS								
OBJECTIVES								
Assessment and management of patients with chronic pancreatitis								
KNOWLEDGE								
Applied Anatomy		X				X	X	1
Pathophysiology		X				X	X	1
Clinical presentation		X				X	X	1
Investigation		X				X	X	1
Complications		X				X	X	1
Postoperative problems		X				X	X	1
CLINICAL SKILLS								
History and Examination	X						X	1
Investigation	X	X					X	1
Resuscitation		X					X	1
Decision making		X					X	1
Non-operative treatment incl ERCP		X					X	1
Operative options		X					X	1
Postoperative management		X					X	1
TECHNICAL SKILLS								
ERCP				X				1
Pancreaticojejunostomy				X				1
Pancreaticoduodenectomy				X				1
Distal pancreatectomy				X				1
Hepaticodocho-jejunostomy				X				1
Pseudocyst drainage				X				1
PERI-ANAL SEPSIS								
OBJECTIVE								
Recognise and manage acute peri-anal sepsis								
CLINICAL SKILLS								
Differentiate cryptoglandular abscess and fistula from other causes	X	X					X	1
Assessment of abscess/fistula by techniques designed to elucidate pathological anatomy: Goodsall's rule and digital examination, fistulogram, injections, MRI, endoanal ultrasound		X				X	X	1
TECHNICAL SKILLS								
Management of anorectal abscess including preoperative and postoperative care and the appropriate procedure based on anatomical spaces				X				1
PILONIDAL DISEASE								
OBJECTIVE								
Emergency management of pilonidal abscess								
KNOWLEDGE								
Pathophysiology of pilonidal disease		X				X	X	1
CLINICAL SKILLS								
Assess the symptoms and signs of pilonidal disease: abscess, sinus	X	X					X	1
TECHNICAL SKILLS								
Drainage of pilonidal abscess			X	X				1
ACUTE PAINFUL PERI-ANAL CONDITIONS								
OBJECTIVE								
Diagnose and initially manage anal fissure, thrombosed haemorrhoids and perianal haematoma								
KNOWLEDGE								
Aetiology of anal fissure, haemorrhoids and perianal haematoma		X				X	X	1
Anatomical location of a classic anal fissure, thrombosed haemorrhoids and perianal haematoma		X				X	X	1
CLINICAL SKILLS								
Assessment of the symptoms and signs	X	X					X	1
Initial conservative management of anal fissure and thrombosed haemorrhoids and planning of surgical treatment for perianal haematoma		X						1
TECHNICAL SKILLS								
EUA, rigid sigmoidoscopy, drain perianal haematoma			X	X				1
ACUTE COLONIC DIVERTICULITIS								
OBJECTIVES								
Ability to assess and manage acute presentations of diverticular disease								
KNOWLEDGE								
Aetiology of colonic diverticular disease		X				X	X	1
Incidence and epidemiology of colonic diverticular disease		X				X	X	1
Complications and classification of diverticular disease including : bleeding, perforation, abscess, fistula, stricture		X				X	X	1
Hinchey classification of complicated diverticular disease		X				X	X	1
CLINICAL SKILLS								
Recognise the clinical patterns (including right sided diverticular disease) presenting symptoms, physical findings and natural history of colonic diverticular disease	X	X					X	1
Arrange appropriate diagnostic studies in suitable sequence in the evaluation of acute colonic diverticular disease		X					X	1
Medical and dietary management of colonic diverticular disease		X					X	1
Medical management for acute diverticulitis		X					X	1
Preoperative assessment including the indications for surgery, surgical procedures, and complications for acute diverticulitis		X					X	1
Choose appropriate surgical procedures including CT guided drainage for the management of acute diverticulitis		X					X	1
Recognise the indications for appropriate resection for diverticular disease including consideration of the extent of resection, use of ureteric stents, and indications for diversion		X					X	1
Appropriate surgical procedures for dealing with complications (fistula,stricture,recurrent episodes) of acute diverticulitis		X					X	1
TECHNICAL SKILLS								
Perform laparoscopy and washout with drainage for appropriate patients				X				1
Colectomy-left				X				1
Colectomy-sigmoid				X				1
Colostomy-construction				X				1

Hartmann's procedure				X				1
VOLVULUS								
OBJECTIVE								
Diagnosis and initial treatment of colonic volvulus								
KNOWLEDGE								
Aetiology of volvulus of the colon		X				X	X	1
Incidence and epidemiology of volvulus of the colon		X				X	X	1
Complications of colonic volvulus including obstruction, ischaemia, perforation		X				X	X	1
CLINICAL SKILLS								
Recognise the clinical patterns, presenting symptoms, physical findings, and natural history of colonic volvulus based upon its site	X	X					X	1
Arrange diagnostic studies in appropriate sequence		X					X	1
Appropriate operative procedures for volvulus depending on site		X					X	1
TECHNICAL SKILLS								
Sigmoidoscopy-rigid			X					1
Sigmoidoscopy-flexible			X					1
Colonoscopy-diagnostic				X				1
Colonoscopy-therapeutic - insertion of PEC button				X				1
MASSIVE LOWER GI BLEEDING								
OBJECTIVE								
Management of massive lower GI tract bleeding								
KNOWLEDGE								
Aetiology of massive lower GI bleeding, including Meckel's		X				X	X	1
Utility, specificity and sensitivity of colonoscopy, angiography and radio-iscope scintigraphy in evaluation of lower GI bleeding		X				X	X	1
Angiographic treatment of lower GI bleeding		X				X	X	1
CLINICAL SKILLS								
Assess haemodynamic stability and outline a resuscitation plan	X	X					X	1
Understand algorithm for the evaluation of lower GI bleeding including exclusion of coagulopathy, gastroscopy, colonoscopy, selective mesenteric angiography, radio-isotope scintigraphy, on table colonoscopy with antegrade lavage		X					X	1
Endoscopic treatment of lower GI bleeding including coagulation, injection therapy and laser ablation		X					X	1
Manage the patient with regard to the indications for radiological intervention or surgery, arrange radiologcial intervention or appropriate surgical procedures and recognise their possible complications based upon cause, location, patient age and medical condition		X					X	1,3
Perform intraoperative evaluation and management of persistent massive lower GI bleeding without an identified site		X					X	1
Manage postoperative lower GI bleeding		X					X	1
TECHNICAL SKILLS								
Colonoscopy-diagnostic				X				1
Colonoscopy-therapeutic				X				1
Colectomy-total+ileostomy				X				1
Colectomy-right				X				1
Colectomy-left				X				1
Colectomy-sigmoid				X				1
Colostomy-construction				X				1
Meckel's diverticulectomy				X				1
Hartmann's procedure				X				1
Ileostomy-construction				X				1
ACUTE COLITIS								
OBJECTIVES								
Diagnosis and management of acute colitis including ischaemic, inflammatory and infective								
KNOWLEDGE								
Vascular anatomy of the colon		X				X	X	1
The aetiology and pathology of acute colonic ischaemia, inflammatory bowel disease and infective colitis		X				X	X	1
CLINICAL SKILLS								
Recognise the clinical presentation of all types of acute colitis	X						X	1
Recognise the natural history, diagnosis, and be able to initially manage all types of colitis		X					X	1
Recognise and manage ischaemic colitis after abdominal aortic aneurysm repair		X					X	1,3
TECHNICAL SKILLS								
Colectomy-right				X				1
Colectomy-transverse				X				1
Colectomy-left				X				1
Colectomy-sigmoid				X				1
Colectomy-total+ileostomy				X				1
Colectomy-total+ileorectal anastomosis				X				1
Crohn's-ileocaecectomy				X				1
EMERGENCY ANEURYSM DISEASE								
OBJECTIVES								
Assessment and management of emergency aneurysm disease								
KNOWLEDGE								
risk factors for rupture		X				X	X	1
presentation		X				X	X	1
differential diagnosis		X				X	X	1
treatment options: open, endovascular		X				X	X	1
complications of repair		X				X	X	1
emergency presentations of other aneurysms: popliteal, false, dissection		X				X	X	1
CLINICAL SKILLS								
history	X						X	1
examination	X						X	1
resuscitation		X					X	1
assessment of comorbidity	X	X					X	1
investigation: CT		X					X	1

selection for intervention		X					X	1
recognition of complications		X					X	1
management of complications		X					X	1
TECHNICAL SKILLS								
endovascular AAA repair				X				1
open AAA repair				X				1
MESENTERIC VASCULAR DISEASE								
OBJECTIVES								
Assessment and management of patients with acute and chronic mesenteric ischaemia								
KNOWLEDGE								
anatomy of mesenteric arterial and venous system		X				X	X	1
pathophysiology of mesenteric ischaemia		X				X	X	1
presentation of mesenteric vascular disease								
acute		X				X	X	1
chronic		X				X	X	1
venous		X				X	X	1
investigation:								
duplex, MR, CT, catheter angiography		X				X	X	1
treatment options:								
endovascular		X				X	X	1
operative		X				X	X	1
complications of treatment		X				X	X	1
CLINICAL SKILLS								
history	X						X	1
examination	X						X	1
resuscitation		X					X	1
patient selection for intervention		X					X	1
TECHNICAL SKILLS								
endovascular intervention				X				
mesenteric bypass				X				
ACUTE LIMB ISCHAEMIA								
OBJECTIVE								
Ability to recognise acute and chronic limb ischaemia and understand emergency management								
KNOWLEDGE								
Anatomy of arterial system		X				X	X	1
Pathophysiology								
embolism		X				X	X	1
thrombosis		X				X	X	1
trauma		X				X	X	1
iatrogenic		X				X	X	1
Investigations								
doppler		X				X	X	1
duplex		X				X	X	1
angiography		X				X	X	1
CT		X				X	X	1
Management								
Resuscitation		X				X	X	1
Principles and indications for conservative treatment		X				X	X	1
Principles and indications for embolectomy		X				X	X	1
Principles and indications for angioplasty / stenting		X				X	X	1
Principles and indications for bypass		X				X	X	1
Principles and indications for thrombolysis		X				X	X	1
Principles and indications for primary amputation		X				X	X	1
CLINICAL SKILLS								
History	X						X	1
Examination	X						X	1
Recognition of acute, acute on chronic and chronic limb ischaemia	X						X	1
Ability to assess the degree of limb ischaemia	X						X	1
Investigations								
doppler		X					X	1
duplex		X					X	1
angiography		X					X	1
CT		X					X	1
echocardiogram, 24 hour ECG		X					X	1
TECHNICAL SKILLS								
Exposure and control of femoral artery bifurcation				X				1
Exposure and control of brachial artery bifurcation				X				1
Embolectomy				X				1
Emergency arterial reconstruction				X				1
Fasciotomy				X				1
TRAUMA PRINCIPLES (includes Abdominal Injuries from 2010)								
OBJECTIVE								
Identify and manage the majority of abdominal injuries								
KNOWLEDGE								
Anatomy of abdomen		X				X	X	1
Aetiology and Epidemiology		X				X	X	1
Pathophysiology of shock		X				X	X	1
Reognition of the possibility of non-accidental injury		X				X	X	1,2,3
Differences in children and the elderly		X				X	X	1
Principles of management of severely injured patients		X				X	X	1
Importance of mechanism of injury - gun shot, stabbing, seat belt		X				X	X	1
Indications for uncross matched blood		X				X	X	1
Coagulopathy		X				X	X	1
Pathophysiology of peritonitis and sepsis		X				X	X	1

Trauma Scoring Systems		X				X	X	1
CLINICAL SKILLS								
Triage	X							
History and examination	X						X	1,2
Resuscitation		X					X	1
Investigations		X					X	1
Appropriate use of radiographs, CT and ultrasound		X					X	1
Indications for intervention		X					X	1
Recognition of injuries requiring other specialties		X					X	1,3
Management of hollow organ injury		X					X	1
Understand indications for Damage Control vs Definitive Surgery		X					X	1
ABDOMEN AND THORAX TRAUMA								
OBJECTIVES								
Assessment and management of blunt and penetrating injury.								
Closed thoracic injury: Assessment and emergency management of blunt injury of the thorax								
Penetrating thoracic injury: Assessment and emergency management of penetrating injury of the thorax.								
Closed and penetrating abdominal injury: Assessment and management of blunt and penetrating abdominal injury.								
KNOWLEDGE								
Closed and penetrating thoracic injury								
Anatomy		X				X	X	1
Concept of low energy, high energy transfer injury		X				X	X	1
Pathogenesis of shock		X				X	X	1
Closed and penetrating abdominal injury								
Anatomy		X				X	X	1
Concept of energy, low high energy transfer injury		X				X	X	1
Pathogenesis of shock		X				X	X	1
CLINICAL SKILLS								
Indications for and interpretation of CT		X				X	X	1
Indications for radiological intervention for haemorrhage control		X					X	1
Closed thoracic injury								
Assessment and initial management of multiply injured patient	X						X	1
Recognise need for operative intervention and organise		X					X	1
Understand indications for ER thoracotomy		X					X	1
Postoperative management and recognition of complications		X					X	1
Penetrating thoracic injury								
Assessment and initial management of multiply injured patient	X						X	1
Recognise need for operative intervention and organise		X					X	1
Recognise and treat sucking chest wound		X					X	1
Understand indications for ER thoracotomy		X					X	1
Postoperative management and recognition of complications		X					X	1
Closed and penetrating abdominal injury								
Assessment and initial management of multiply injured patient	X						X	1
Recognise need for laparotomy and organise		X					X	1
Arrest haemorrhage by suture/ligation/packing				X			X	1
Indication for pelvic fixator		X					X	1
Drains for biliary / pancreatic injury		X					X	1
Management of retroperitoneal haematoma		X					X	1
Postoperative management and recognition of complications		X					X	1
TECHNICAL SKILLS								
Closed and Penetrating thoracic injury								
Chest drain insertion			X					1
Lateral thoracotomy				X				1
Median sternotomy				X				1
Clamshell thoracotomy				X				1
Hilar control of massive pulmonary haemorrhage				X				1
Non-segmental lung resection				X				1
Pulmonary tractotomy using staplers				X				1
Pericardotomy				X				1
Control and suture of myocardial laceration				X				1
Closed and penetrating abdominal injury								
Laparotomy - trauma				X				1
Packing / debridement of liver trauma				X				1
Splenectomy				X				1
Splenic repair				X				1
Small bowel resection				X				1
Distal pancreatectomy				X				1
Pancreatic debridement and drainage				X				1
Mobilisation and repair of the duodenum				X				1
Medial rotation of left hemicolon and colectomy when appropriate				X				1
Medial rotation of right hemicolon and colectomy when appropriate				X				1
Hartmann's Procedure				X				1
Nephrectomy				X				1
Bladder repair				X				1
Ileostomy - construction				X				1
Colostomy - construction				X				1
Temporary abdominal closure Bogota Bag or Topical Negative Pressure Dressing				X				1
				X				
HEAD AND NECK TRAUMA								
OBJECTIVE								
Identification, assessment and initial management of trauma to the Head and Neck								
KNOWLEDGE								
Anatomy of the Head and Neck		X				X	X	1

CLINICAL SKILLS								
Immobilisation of patients with suspected cervical spine injury	X						X	1
Observation of patients with head injury	X						X	1
Interpretation of plain rediographs and CT scans of cervical spine	X	X					X	1
Interpretation of CT brain/skull	X	X					X	1
Decision to refer to Neurosurgeon		X					X	1,3
TECHNICAL SKILLS								
Exposure, control and repair of vascular, airway or GI tract structures in the neck				X				1
Crycothyroidotomy				X				1
Formal tracheostomy				X				1
Burr holes				X				1
Craniotomy/Craniectomy				X				1
Evacuation of Extradural/Subdural haematoma				X				1
Debridement of injured brain				X				1
Lateral canthotomy for orbital decompression				X				1
EXTREMITY AND SOFT TISSUE TRAUMA								
OBJECTIVE								
Assessment and management of blunt and penetrating injury of the soft tissues and skeleton.								
KNOWLEDGE								
Anatomy of the limbs						X	X	
Blunt and penetrating soft tissue and skeletal injury								
Anatomy		X				X	X	1
Concept of low energy, high energy transfer injury		X				X	X	1
Pathogenesis of shock		X				X	X	1
Principles of soft tissue coverage and simple flaps		X				X	X	1
Principles of Topical Negative Pressure Dressings		X				X	X	1
Understanding of wound contamination/infection		X				X	X	1
CLINICAL SKILLS								
Blunt and penetrating soft tissue and skeletal injury								
Assessment and initial management of multiply injured patient	X						X	1
Arrest haemorrhage by pressure and tourniquet	X							1
Appropriate immobilisation during assessment	X						X	1
Recognition of major vascular trauma	X	X					X	1
Assessment of ischaemic limb	X	X					X	1
Recognition and treatment of acute compartment syndrome	X	X					X	1
Postoperative management and recognition of complications	X	X					X	1
TECHNICAL SKILLS								
Proximal arterial control								
Femoral				X				1
Brachial				X				1
Subclavian				X				1
Soft Tissue Management								
Wound debridement and lavage				X				1
Fasciotomy -Lower leg				X				1
Fasciotomy -Thigh				X				1
Fasciotomy -Upper limb				X				1
Application of dressings				X				1
Application of Topical Negative Pressure Dressings				X				1
Split skin grafting				X				1
VASCULAR TRAUMA								
OBJECTIVE								
Identification, assessment and management of injuries to blood vessels								
KNOWLEDGE								
Surgical anatomy								
Relationship of vascular structures to fractures, nerves, associated structures		X				X	X	1
Mechanisms of vascular injury								
Traumatic		X				X	X	1
Iatrogenic		X				X	X	1
Pathophysiology of trauma and muscle ischaemia		X				X	X	1
Pathophysiology of A-V fistula		X				X	X	1
Investigations								
Indications		X				X	X	1
Invasive		X				X	X	1
Non-invasive		X				X	X	1
Operative approach to specific injuries								
Arterial or venous		X				X	X	1
Open surgery		X				X	X	1
Endovascular		X				X	X	1
Combined arterial and venous		X				X	X	1
Orthopaedic / neurological		X				X	X	1
Technical options for repair		X				X	X	1
Fasciotomy		X				X	X	1
CLINICAL SKILLS								
Symptoms and signs of acute arterial / venous injury	X	X				X	X	
Investigation								
Ankle / brachial pressure index	X	X					X	
Duplex		X					X	
CT angiogram		X					X	
DSA		X					X	
Manage multiply injured patient	X	X					X	
Manage systemic effects of arterial trauma - rhabdomyolysis		X					X	
TECHNICAL SKILLS								
control with compression				X				
Surgical options								
Exposure and control of major vessels				X				

thoracic aorta				X				
abdominal aorta (infra and supra renal)				X				
subclavian and axillary arteries				X				
femoral and popliteal arteries				X				
use of shunts				X				
Ligation				X				
Direct suture repair				X				
End to end anastomosis				X				
Interposition vein / prosthetic graft				X				
Panel / spiral grafts				X				
Fasciotomy				X				
Radiological								
Intra-operative imaging techniques		X		X				
options for control of bleeding		X		X				
ADVANCED TRAUMA / MILITARY - GENERAL PRINCIPLES (for those intending to work in a trauma centre or in the military)								
Objectives								
To provide the Military consultant surgeon on deployment with the ability to perform life and limb saving procedures in arduous conditions. The purpose is to stabilise the patient for evacuation no longer than 48 hours from wounding.								
Pathophysiology of trauma: Knowledge of the pathophysiology of different types of trauma								
Safe patient transfer: Ability to make the correct decision re patient transfer.								
Trauma Laparotomy: Ability to perform trauma laparotomy.								
Paediatric trauma laparotomy: Ability to perform paediatric trauma laparotomy.								
Trauma thoracotomy: Ability to perform trauma thoracotomy.								
Damage control surgery: Judgement in performing damage control surgery if definitive laparotomy inappropriate.								
Difficult peripheral haemorrhage: Ability to manage difficult peripheral haemorrhage								
Severely traumatised ischaemic limbs: Appropriate urgent management of severely traumatised ischaemic limbs.								
Head Injury: Urgent management of head injury.								
Pregnant woman with severe abdominal trauma: Urgent management of pregnant woman with abdominal trauma.								
Burns: Management of burns in the first 48 hours.								
Surgical airway management in severe head and neck injury: Safe management of the airway in severe head and neck injury.								
Stabilisation of the jaw after severe facial injury: Stabilise the jaw after severe facial injury								
KNOWLEDGE								
Pathophysiology of trauma								
Pathophysiology of blunt trauma		X						1
Penetrating injury (low and high energy trauma)		X						1
Blast injury		X						1
Burns		X						1
Safe patient transfer: Understanding of strategic/tactical situation								1,2,3
Trauma Laparotomy		X						1
Indications for laparostomy		X						1
Paediatric trauma								
Paediatric physiology		X						1
Paediatric trauma laparotomy		X						1
Trauma thoracotomy: Indications for thoracotomy		X						1
Incisions used in particular circumstances		X						1
Damage control surgery: Damage control vs. definitive laparotomy		X						1
Difficult peripheral haemorrhage: Anatomical approach to major vessels		X						1
Severely traumatised ischaemic limbs: Anatomical approach to major vessels		X						1
Pregnant woman with severe abdominal trauma: Indications for Caesarean section		X						1
Burns:								
Knowledge of fluid replacement regimes for burns patients		X						1
Clinical Skills								
Safe patient transfer: Awareness of evacuation assets	X	X						1,2,3
Interventional surgery only if the patient cannot be transferred safely within the relevant timeframe	X	X						1,2,3
Trauma Laparotomy:								
Use of Focussed Abdominal Sonography for Trauma	X	X						1
Exposure of retroperitoneal structures				X				1
Techniques for arresting haemorrhage including liver packing		X		X				1
Safe anastomotic techniques for gut and blood vessels		X		X				1
Appropriate formation of stomas		X		X				1
Trauma thoracotomy: Lung resection		X		X				1
Cardiac repair without bypass		X		X				1
Damage control surgery:								
Management of the postoperative patient in difficult circumstances e.g. acidosis,coagulopathy, rewarming		X		X				1
Difficult peripheral haemorrhage: Safe control of major vessels		X		X				1
Severely traumatised ischaemic limbs: Safe control of major vessels		X		X				1
Repair of vessels		X		X				1
Use of temporary shunts		X		X				1
Fasciotomy		X		X				1
Decision to amputate		X		X				1
Amputation AK		X		X				1
Amputation BK		X		X				1
Amputation upper limb		X		X				1
Pregnant woman with severe abdominal trauma: Caesarean section		X		X				1
Burns: Escharotomy		X		X				1
Fluid replacement		X		X				1
Surgical airway management in severe head and neck injury: Cricothyroidotomy		X		X				1
Tracheostomy		X		X				1
Stabilisation of the jaw after severe facial injury: Interdental wiring		X		X				1
Technical Skills								

Trauma Laparotomy: Laparotomy-trauma				X				1
Trauma thoracotomy: Thoracotomy-trans-sternal				X				1
Thoracotomy-lateral				X				1
Thoracotomy-clamshell				X				1
Severely traumatised ischaemic limbs Amputation-AK				X				1
Amputation-BK				X				1
Amputation-upper limb				X				1
Surgical airway management in severe head and neck injury: Cricothyroidotomy (percutaneous tracheostomy)				X				1

UPPER GI								
	CEX	CBD	DOPS	PBA	MSF	FRCS Section 1	FRCS Section 2	GMP
GASTRO-OESOPHAGEAL REFLUX DISEASE								
OBJECTIVES								
Assessment and management of patients presenting with GORD								
KNOWLEDGE								
Anatomy								
Lower third of oesophagus; oesophageal sphincter		X				X	X	1
Pathophysiology								
Acid or bile reflux; pH abnormalities; motility disorder		X				X	X	1
Pathology								
Classification of oesophagitis		X				X	X	1
Complications								
Barrett's metaplasia; stricture		X				X	X	1
CLINICAL SKILLS								
History and Examination	X						X	1,3
Investigation								
Endoscopy, pH studies, Manometry		X					X	1
Decision making								
Indications for surgery		X					X	1
Non operative options								
Medical management; postural changes		X					X	1
Operative options								
Indications for surgery; antireflux surgery - open or laparoscopic		X					X	1
Postoperative management		X					X	1
TECHNICAL SKILLS								
Endoscopy				X				1
Antireflux surgery				X				1
Revisional antireflux surgery				X				1
HIATUS HERNIA								
OBJECTIVES								
Assessment of patients presenting with hiatus hernia								
KNOWLEDGE								
Applied Anatomy - Sliding; para-oesophageal		X				X	X	1
Pathophysiology		X				X	X	1
Pathology		X				X	X	1
Complications - incarceration		X				X	X	1
CLINICAL SKILLS								
History and Examination	X						X	1
Investigation - contrast radiology, manometry		X				X	X	1
Decision making - indications for operation		X					X	1
Non operative options								
Medical management: weight loss, posture		X				X	X	1
Postoperative management		X					X	1
TECHNICAL SKILLS								
Endoscopy				X				1
Open repair				X				1
Laparoscopic repair				X				1
Revisional antireflux surgery				X				1
PEPTIC STRICTURE								
OBJECTIVES								
Assessment and management of patients presenting with peptic stricture								
KNOWLEDGE								
Anatomy		X				X	X	1
Pathophysiology - Physiology of reflux - pH; motility		X				X	X	1
Pathology - Differential diagnosis		X				X	X	1
Complications - perforation		X				X	X	1
CLINICAL SKILLS								
History and Examination	X						X	1,3
Investigation								
Endoscopy; contrast radiology; pH studies; manometry		X				X	X	1
Decision making - Indications for dilatation		X					X	1
Postoperative management - Diagnosis and management of perforation		X					X	1
TECHNICAL SKILLS								
Endoscopy				X				1
Oesophageal dilatation				X				1
ACHALASIA								
OBJECTIVES								
Assessment and management of patients presenting with achalasia								
KNOWLEDGE								
Anatomy		X				X	X	1
Pathophysiology		X				X	X	1
Pathology		X				X	X	1
Complications		X				X	X	1
CLINICAL SKILLS								
History and Examination	X						X	1,3
Investigation		X					X	1
Decision making		X					X	1
Non operative options		X					X	1
Postoperative management		X					X	1
TECHNICAL SKILLS								
Endoscopy				X				1

Endoscopic dilation				X				1
Endoscopic botox injection				X				1
Laparoscopic cardiomyotomy				X				1
MOTILITY DISORDERS								
OBJECTIVES								
Assessment and management of patients presenting with oesophageal mpotility disorders								
KNOWLEDGE								
Anatomy		X				X	X	1
Pathophysiology		X				X	X	1
Pathology		X				X	X	1
Complications		X				X	X	1
CLINICAL SKILLS							X	
History and Examination	X					X	X	1,3
Investigation		X					X	1
Decision making		X					X	1
Non operative options		X				X	X	1
Postoperative management		X					X	1
TECHNICAL SKILLS								
Endoscopy				X				1
IATROGENIC OESOPHAGEAL PERFORATION								
OBJECTIVES								
Assessment and initial management of patients presenting with iatrogenic oesophageal perforation								
KNOWLEDGE								
Anatomy - Oesophagus and mediastinal relationships		X				X	X	1
Clinical presentation - Post-instrumentation		X				X	X	1
Investigation - Contrast radiology		X				X	X	1
Pathophysiology - Mediastinitis		X				X	X	1
Complications - Mediastinitis		X				X	X	1
CLINICAL SKILLS								
History and Examination	X						X	1,3
Investigation		X					X	1
Decision making		X					X	1
Non-operative treatment - Pleural drainage; antibiotics; nutritional support		X					X	1
Interventional options		X					X	1
Referral to specialist unit for definitive management		X			X		X	1,3
Postoperative management		X					X	1
TECHNICAL SKILLS								
Endoscopy				X				1
Endoscopic interventions incl stent				X				1
Thoracotomy + lavage				X				1
Oesophagectomy				X				1
BOERHAAVE'S								
OBJECTIVES								
Assessment and initial management of patients presenting with Boerhaave's								
KNOWLEDGE								
Anatomy		X				X	X	1
Pathophysiology - aetiology		X				X	X	1
Clinical presentation		X				X	X	1
Investigations - contrast radiology		X				X	X	1
Complications - empyema		X				X	X	1
CLINICAL SKILLS								
History and Examination	X						X	1,3
Investigation		X					X	1
Decision making		X					X	1
Non-operative treatment		X					X	1
Referral to specialist unit for definitive management		X			X		X	1,3
Interventional options - primary repair, nutritional support		X					X	1
Postoperative management		X					X	1
TECHNICAL SKILLS								
Endoscopy				X				1
Thoracotomy + non-resectional management				X				1
Oesophagectomy				X				1
CARCINOMA OF THE OESOPHAGUS								
OBJECTIVES								
Assessment and management of patients presenting with oesophageal carcinoma								
KNOWLEDGE								
Applied Anatomy								
Oesophageal and Oesophago-gastric junctional cancer; lymph node		X				X	X	1
Pathology								
Epidemiology; aetiology : SCC or ACA		X				X	X	1
Staging - TNM		X				X	X	1
Clinical Presentation - dysphagia		X				X	X	1
Investigations - CT, EUS, PET-CT, laparoscopy		X				X	X	1
Complications		X				X	X	1
CLINICAL SKILLS								
History and Examination	X						X	1,3
Investigation - Endoscopy; CT; EUS; PET-CT; Laparoscopy		X					X	1
Decision making		X					X	1
Assessment of medical comorbidity for radical therapy		X					X	1
Nutritional support		X					X	1
Chemotherapy - neoadjuvant		X					X	1

Radiotherapy								
Combination with chemotherapy		X					X	1,3
Difference in treatment for SCC or ACA		X					X	1
Other non-operative treatment incl palliation		X					X	1
Indications for surgery		X					X	1
Postoperative management								
Anastomotic leak; chylothorax; recurrent laryngeal nerve injury		X					X	1
Follow-up - Detection of recurrence		X					X	1
TECHNICAL SKILLS								
Endoscopy				X				1
Endoscopic palliation incl stenting				X				1
EMR				X				1
Open Oesophagogastrectomy								
2 field lymph node dissection				X				1
Transthoracic				X				1
Transhiatal				X				1
MIO				X				1
OESOPHAGEAL VARICES								
OBJECTIVES								
Assessment, initial and emergency management of patients presenting with oesophageal varices								
KNOWLEDGE								
Anatomy		X				X	X	1
Pathophysiology								
Aetiology of portal hypertension		X				X	X	1
Clinical presentation		X				X	X	1
Diagnosis		X				X	X	1
Treatment options								
Endoscopic - injection, banding; Sengstaken tube		X				X	X	1
Medical treatment		X				X	X	1
Porto-systemic shunt - TIPSS		X				X	X	1
Indications for surgery		X				X	X	1
Complications								
Child's classification of liver disease		X				X	X	1
CLINICAL SKILLS								
History and Examination	X						X	1,3
Investigation - Endoscopic assessment	X						X	1
Resuscitation	X						X	1
Decision making	X	X					X	1
Non-operative treatment - sclerotherapy / banding		X					X	1
Referral to specialist unit for definitive management		X			X		X	1,3
Operative options								
Porto-caval shunt; Oesophageal transection		X					X	1
Postoperative management		X					X	1
TECHNICAL SKILLS								
Endoscopy				X				1
Variceal injection			X					1
Balloon tamponade			X					1
GASTRIC ULCER								
OBJECTIVES								
Assessment and management of patients presenting with gastric ulcer								
KNOWLEDGE								
Anatomy		X				X	X	1
Pathophysiology		X				X	X	1
Clinical presentation - differential diagnosis of Ca		X				X	X	1
Complications - perf, bleeding, pyloric stenosis		X				X	X	1
CLINICAL SKILLS								
History and Examination	X						X	1
Investigation - endoscopy and biopsy		X					X	1
Decision making - indications for surgery		X					X	1
Operative options		X					X	1
Postoperative management		X					X	1
TECHNICAL SKILLS								
Endoscopy				X				1
Endoscopic therapy				X				1
Laparoscopy				X				1
Local treatment, ulcer excision				X				1
Gastroenterostomy				X				1
Partial gastrectomy				X				1
Total gastrectomy				X				1
DUODENAL ULCER								
OBJECTIVES								
Assessment and management of patients with duodneal ulceration and its complications								
KNOWLEDGE								
Clinical presentation		X				X	X	1
Pathophysiology		X				X	X	1
Complications - perf, bleeding, pyloric stenosis		X				X	X	1
CLINICAL SKILLS								
History and Examination	X						X	1,3
Investigation - OGD		X					X	1
Resuscitation		X					X	1
Decision making - indications for operation		X					X	1

Operative options		X					X	1
Postoperative management		X					X	1
TECHNICAL SKILLS								
Endoscopy				X				1
Endoscopic therapy				X				1
Laparoscopy				X				1
Local treatment, ulcer underrun/oversew				X				1
Gastroenterostomy				X				1
Partial gastrectomy				X				1
Vagotomy and pyloroplasty				X				1
GASTRIC AND DUODENAL POLYPS								
OBJECTIVES								
Assessment and management of patients presenting with gastric and duodenal polyps								
KNOWLEDGE								
Anatomy		X				X	X	1
Clinical presentation - incidental, bleeding		X				X	X	1
Pathology - adenoma, hamartoma, GIST, FAP		X				X	X	1
Complications - malignancy		X				X	X	1
CLINICAL SKILLS								
History and Examination	X						X	1
Investigation - OGD and polypectomy		X					X	1
Decision making		X					X	1
Operative options		X					X	1
Postoperative management		X					X	1
TECHNICAL SKILLS								
Endoscopy				X				1
Endoscopic excision				X				1
EMR				X				1
Laparoscopy				X				1
Open excision				X				1
Partial gastrectomy				X				1
ACUTE PERFORATION								
OBJECTIVES								
Diagnosis and management of perforated peptic ulcer.								
Diagnosis and preop management: Diagnosis of perforated peptic ulcer and assess for operation								
Operative management:Operation for perforated peptic ulcer.								
Postoperative management: postoperative management of patients who have had surgery for perf peptic ulcer								
KNOWLEDGE								
Anatomy		X				X	X	1
Pathophysiology		X				X	X	1
Differential diagnosis - perf DU, GU, Ca		X				X	X	1
Complications - subphrenic abscess		X				X	X	1
CLINICAL SKILLS								
History and Examination - peritonitis	X						X	1,3
Investigation		X					X	1
Resuscitation		X					X	1
Decision making - comorbidity		X					X	1
Operative options - closure, local excision, resection		X					X	1
Postoperative management		X					X	1
TECHNICAL SKILLS								
Laparoscopy				X				1
Local treatment, ulcer closure or excision				X				1
Partial gastrectomy				X				1
Total gastrectomy				X				1
ACUTE UPPER GI HAEMORRHAGE								
OBJECTIVES								
Endoscopic diagnosis of upper GI haemorrhage, endoscopic management of most cases, operative management of cases where endostasis has failed, including management of complications.								
Diagnosis: Endoscopic diagnosis of upper GI haemorrhage.								
Management: Endoscopic management of most cases of upper GI haemorrhage, operative management where endostasis has failed.								
Post-operative care: Post-operative care of all patients who have had surgery for UGI haemorrhage, including management of complications.								
KNOWLEDGE								
Anatomy		X				X	X	
Pathophysiology		X				X	X	
Differential diagnosis - Benign ulcer; cancer; vascular malformation; GIST		X				X	X	
Complications - hypovolaemic shock		X				X	X	
CLINICAL SKILLS								
History and Examination	X						X	
Investigation - endoscopy		X					X	
Resuscitation - management of hypovolaemic shock		X					X	
Decision making - indications for intervention		X					X	
Non-operative treatment - sclerotherapy		X					X	
Operative options		X					X	
Postoperative management - rebleeding		X					X	
TECHNICAL SKILLS								
Endoscopy				X				
Endoscopic therapy				X				
Gastrotomy + non-resectional treatment - histology				X				

Partial gastrectomy				X				
Total gastrectomy				X				
ACUTE GASTRIC DILATION								
OBJECTIVES								
Assessment, initial and emergency management of patients presenting with acute gastric dilatation								
KNOWLEDGE								
Applied Anatomy		X				X	X	1
Pathophysiology								
Spontaneous; postsplenectomy		X				X	X	1
Clinical presentation		X				X	X	1
Complications		X				X	X	1
CLINICAL SKILLS								
History and Examination	X						X	1,3
Investigation - contrast radiology, CT		X					X	1
Resuscitation		X					X	1
Decision making		X					X	1
Non-operative treatment NG aspiration		X					X	1
Referral to specialist unit for definitive management		X					X	1,3
Operative options		X					X	1
Postoperative management		X					X	1
TECHNICAL SKILLS								
NG tube insertion			X					1
Endoscopy				X				1
Gastrectomy				X				1
ACUTE GASTRIC VOLVULUS								
OBJECTIVES								
Assessment and initial management of patients presenting with acute gastric volvulus								
KNOWLEDGE								
Applied Anatomy - para-oespohageal hernia		X				X	X	1
Pathophysiology		X				X	X	1
Clinical presentation		X				X	X	1
Investigation - contrast radiology, CT		X				X	X	1
Complications - gastric necrosis		X				X	X	1
CLINICAL SKILLS								
History and Examination		X					X	1,3
Investigation			X				X	1
Resuscitation - fluid			X				X	1
Decision making - indications for surgery			X				X	1
Referral to specialist unit for definitive management			X				X	1,3
Operative options - endoscopic, urgent or delayed surgery			X				X	1
Postoperative management			X				X	1
TECHNICAL SKILLS								
Endoscopy				X				1
Gastropexy				X				1
Hiatus hernia repair				X				1
Total Gastrectomy				X				1
GASTRIC CARCINOMA								
OBJECTIVES								
Assessment and managemenrt of patients presenting with gastric cancer								
KNOWLEDGE								
Applied Anatomy								
Arterial blood supply; Lymph node tiers		X				X	X	1
Pathology								
Epidemiology; Aetiology - Helicobacter		X				X	X	1
Stage - TNM; pattern of spread		X				X	X	1
Clinical presentation								
Early gastric cancer; advanced gastric cancer		X				X	X	1
Investigation								
Endoscopy, CT, EUS, Laparoscopy		X				X	X	1
Complications								
CLINICAL SKILLS								
History and Examination	X						X	1,3
Investigation								
Endoscopy; CT; EUS; laparoscopy		X					X	1
Decision making								
Comorbidity assessment; nutritional support		X					X	1
Chemotherapy								
Neoadjuvant; adjuvant		X					X	1,3
Chemoradiotherapy								
Adjuvant		X					X	1,3
Other non-operative treatment incl palliation								
Chemotherapy; pain control		X					X	1,3
Interventional options								
Endoscopic; resectional; extended lymphadenectomy		X					X	1
Postoperative management								
Anastomotic leak; Duodenal stump disruption		X					X	1
TECHNICAL SKILLS								
Endoscopy				X				1
Endoscopic palliation incl stenting				X				1
EMR				X				1
Gastrojejunostomy				X				1
Palliative gastrectomy				X				1
D2 Subtotal gastrectomy				X				1

D2 Total gastrectomy				X				1
GIST								
OBJECTIVES								
Assessment and management of patients presenting with gastrointestinal stromal tumours								
KNOWLEDGE								
Applied Anatomy		X				X	X	1
Clinical presentation incidental, bleed		X				X	X	1
Pathology - benign, malignant		X				X	X	1
Complications		X				X	X	1
CLINICAL SKILLS								
History and Examination	X						X	1,3
Investigation - OGD, biopsy, CT		X					X	1
Decision making		X					X	1,3
Chemotherapy - imatinib		X					X	1,3
Operative options - resection, excision		X					X	1
Postoperative management		X					X	1
TECHNICAL SKILLS								
Endoscopy				X				1
Laparoscopy				X				1
Open excision				X				1
Small bowel resection				X				1
Partial gastrectomy				X				1
Total gastrectomy				X				1
GASTRIC LYMPHOMA								
OBJECTIVES								
Assessment and management of patients presenting with gastric lymphoma								
KNOWLEDGE								
Applied Anatomy		X				X	X	
Clinical presentation		X				X	X	
Investigation - OGD, CT, PET-CT		X				X	X	
Pathology - extranodal lymphoma, MALToma		X				X	X	
Complications - perforation		X				X	X	
CLINICAL SKILLS								
History and Examination	X						X	
Investigation - OGD, CT, PET-CT		X					X	
Decision making		X					X	
Medical management - chemo, helicobacter eradicaiton		X					X	
Interventional options		X					X	
Postoperative management		X					X	
TECHNICAL SKILLS								
Endoscopy				X				
Gastrojejunostomy				X				
Total gastrectomy				X				
MORBID OBESITY								
OBJECTIVES								
Basic management of the patient who is morbidly obese and an understanding of the surgical treatment of morbid obesity including early and late complications. A knowledge of the different patterns of presentations complications								
KNOWLEDGE								
Indications for surgery in morbid obesity		X				X	X	1
Therapeutic options for morbid obesity. Types of operations performed		X				X	X	1
General principles of the management of the obese patient perioperatively		X				X	X	1
Long term management of the bariatric patient post surgery		X				X	X	1
CLINICAL SKILLS								
History and Examination of the Obese patient	X						X	1,3
Assessment of the post operative bariatric patient	X	X					X	1
Interpretation of Investigations in the obese patient		X					X	1
Management decisions for early and late complications of morbid obesity		X					X	1
TECHNICAL SKILLS								
Laparoscopic access in the morbidly obese				X				1
Aspiration of lap band port				X				1
Emergency release of lap band for slippage				X				1
Insertion of lap band				X				1
Repair of internal hernia after gastric bypass				X				1
Roux en Y gastric bypass				X				1
Revisional gastric surgery for obesity				X				1
General Surgery for the super morbidly obese patient				X				1
GALLSTONE DISEASE								
OBJECTIVES								
Diagnosis and management of acute gallstone disease, including operation.								
Acute gall stone disease including acute cholecystitis, empyema, acute biliary colic and cholangitis								
KNOWLEDGE								
Anatomy		X				X	X	1
Pathophysiology		X				X	X	1
Microbiology		X				X	X	1
Complications								
Acute cholecystitis		X				X	X	1
Empyema		X				X	X	1
Mucocoele		X				X	X	1

Acute pancreatitis		X				X	X	1
Chronic cholecystitis		X				X	X	1
Biliary colic		X				X	X	1
Common bile duct stone		X				X	X	1
Obstructive jaundice, all causes including gall stones, tumour and inflammatory conditions		X				X	X	1
Cholangitis		X				X	X	1
Gall stone ileus		X				X	X	1
Gall bladder cancer		X				X	X	1
Postoperative problems								
Bile duct injury		X				X	X	1
CLINICAL SKILLS								
History and Examination - elective, acute, emergency	X						X	1
Investigation - U/S, ERCP, MRCP, CT		X					X	1
Resuscitation		X					X	1
Decision making		X					X	1
Non-operative treatment - ERCP, U/S cholecystotomy		X					X	1
Operative options - lap chole		X					X	1,2
Postoperative management		X					X	1,2
TECHNICAL SKILLS								
Cholecystectomy - lap / open				X				1
Cholecystostomy				X				1
Exploration CBD				X				1
Hepaticodocho-jejunostomy				X				1
ACUTE PANCREATITIS								
OBJECTIVES								
Diagnosis and management of most patients with acute pancreatitis								
KNOWLEDGE								
Applied Anatomy		X				X	X	1
Pathophysiology - scoring systems		X				X	X	1
Microbiology		X				X	X	1
Clinical presentation		X				X	X	1
Investigations - CT, ERCP		X				X	X	1
Complications		X				X	X	1
CLINICAL SKILLS								
History and Examination	X						X	1
Investigation		X					X	1
Resuscitation		X					X	1
Decision making		X					X	1
Non-operative treatment incl nutrition, use of antibiotics		X					X	1
Interventional options - ERCP, radiological drainage		X					X	1
Postoperative management								
Abscess; Pseudocyst; Haemorrhage		X					X	1
TECHNICAL SKILLS								
Cholecystectomy				X				1
Exploration CBD				X				1
ERCP				X				1
Necrosectomy				X				1
Pseudocyst drainage				X				1
CHRONIC PANCREATITIS								
OBJECTIVES								
Assessment and management of patients with chronic pancreatitis								
KNOWLEDGE								
Applied Anatomy		X				X	X	1
Pathophysiology		X				X	X	1
Clinical presentation		X				X	X	1
Investigation		X				X	X	1
Complications		X				X	X	1
Postoperative problems		X				X	X	1
CLINICAL SKILLS								
History and Examination	X						X	1,3
Investigation		X					X	1
Resuscitation		X					X	1
Decision making		X					X	1
Non-operative treatment incl ERCP		X					X	1
Operative options		X					X	1
Postoperative management		X					X	1
TECHNICAL SKILLS								
ERCP				X				1
Pancreaticojejunostomy				X				1
Pancreaticoduodenectomy				X				1
Distal pancreatectomy				X				1
Hepaticodocho-jejunostomy				X				1
Pseudocyst drainage				X				1
PANCREATIC CANCER / PERIAMPULLARY CANCER								
OBJECTIVES								
Assessment and management of patients with pancreatic and ampullary cancer								
KNOWLEDGE								
Applied Anatomy		X				X	X	1
Pathophysiology								
Epidemiology; aetiology		X				X	X	1
Stage - TNM		X				X	X	1
Pathology - ACa pancreas, ampullary		X				X	X	1
Clinical presentation - jaundice, pain		X				X	X	1
Investigation - CT, MRCP, MRI, EUS		X				X	X	1

Complications		X				X	X	1
CLINICAL SKILLS								
History and Examination	X						X	1,3
Investigation - CT, MRCP, MRI, EUS		X					X	
Decision making								
Comorbidity; Nutritional assessment		X					X	1
Non-operative treatment incl palliation, nutrition		X					X	1
Interventional options eg ERCP, PTC		X					X	1
Postoperative management		X					X	1
TECHNICAL SKILLS								
Pancreaticoduodenectomy				X				1
Distal pancreatectomy				X				1
ERCP				X				1
Biliary bypass				X				1
Gastroenterostomy				X				1
CYSTIC TUMOURS								
OBJECTIVES								
Assessment and management of patients with cystic tumours of the pancreas								
KNOWLEDGE								
Applied Anatomy		X				X	X	1
Pathophysiology - epidemiology, aetiology		X				X	X	1
Pathology - benign, malignant		X				X	X	1
Clinical presentation		X				X	X	1
Investigation - CT, MRCP, EUS		X				X	X	1
Complications		X				X	X	1
CLINICAL SKILLS								
History and Examination	X						X	1,3
Investigation - CT, MRCP, EUS		X					X	1
Decision making		X			X		X	1
Non-operative treatment incl palliation, nutrition		X					X	1
Interventional options eg ERCP, PTC		X					X	1
Postoperative management		X					X	1
TECHNICAL SKILLS								
Pancreaticoduodenectomy				X				1
Distal pancreatectomy				X				1
ERCP				X				1
Biliary bypass				X				1
Gastroenterostomy				X				1
NEUROENDOCRINE TUMOURS								
OBJECTIVES								
Diagnosis, assessment and management of pancreatic endocrine tumours (level of involvement in diagnosis and operation may vary between HPB and endocrine units).								
Diagnosis: Diagnosis and assessment of possible pancreatic endocrine tumours, often in consultation with other specialists.								
Management: Management of pancreatic endocrine tumours, level of operative skill expected dependent on local arrangements.								
Post-operative care: Management of both immediate and longterm care after surgery for pancreatic endocrine tumour.								
KNOWLEDGE								
Applied Anatomy		X				X	X	1
Pathophysiology		X				X	X	1
Pathology - functioning, non-functioning		X				X	X	1
Clinical presentation - symptoms of functioning tumour		X				X	X	1
Investigation - CT, EUS, MRCP		X				X	X	1
Complications		X				X	X	1
CLINICAL SKILLS								
History and Examination	X						X	1,3
Investigation - CT, EUS, MRCP		X					X	1
Decision making		X			X		X	1
Non-operative treatment incl palliation, nutrition		X					X	1
Interventional options eg ERCP, PTC		X					X	1
Postoperative management		X					X	1
TECHNICAL SKILLS								
Pancreaticoduodenectomy				X				1
Distal pancreatectomy				X				1
Enucleation				X				1
ERCP				X				1
Biliary bypass				X				1
Gastroenterostomy				X				1
INTRADUCTAL PAPILLARY MUCINOUS NEOPLASMS								
OBJECTIVES								
Assessment and management of IPMN								
KNOWLEDGE								
Applied Anatomy		X				X	X	1
Pathophysiology		X				X	X	1
Pathology		X				X	X	1
Complications		X				X	X	1
CLINICAL SKILLS								
History and Examination	X						X	1,3
Investigation		X					X	1
Decision making		X					X	1
Non-operative treatment incl palliation, nutrition		X					X	1
Interventional options eg ERCP, PTC		X					X	1
Postoperative management		X					X	1
TECHNICAL SKILLS								

Pancreaticoduodenectomy				X				1
Distal pancreatectomy				X				1
Total pancreatectomy				X				1
ERCP				X				1
Biliary bypass				X				1
Gastroenterostomy				X				1
PANCREATIC TRAUMA								
OBJECTIVES								
Assessment and management of patients with pancreatic trauma								
KNOWLEDGE								
Applied Anatomy		X				X	X	1
Pathophysiology		X				X	X	1
Clinical presentation - blunt and penetrating		X				X	X	1
Investigation - CT, MRI		X				X	X	1
Complications - fistula		X				X	X	1
CLINICAL SKILLS								
History and Examination	X						X	1,3
Investigation - CT, MRI, laparoscopy		X					X	1
Resuscitation		X					X	1
Decision making		X			X		X	1,3
Non-operative treatment		X					X	1
Interventional options eg ERCP, radiological drainage		X					X	1
Postoperative management - fistula, nutritional support		X					X	1
TECHNICAL SKILLS								
Cholecystectomy				X				1
Debridement & drainage				X				1
Pancreaticojejunostomy				X				1
Pancreaticoduodenectomy				X				1
Distal pancreatectomy				X				1
Pseudocyst drainage				X				1
LIVER METASTASES								
OBJECTIVES								
Assessment and management of liver metastases.								
KNOWLEDGE								
Applied Anatomy - liver segments		X				X	X	1
Pathophysiology - liver function		X				X	X	1
Pathology								
Solitary; multiple; extrahepatic synchronous disease; colorectal; non-colorectal		X				X	X	1
Clinical Presentation		X				X	X	1
Complications		X				X	X	1
CLINICAL SKILLS								
History and Examination	X						X	1,3
Investigation - CT, PET-CT, MRI		X					X	1
Decision making including scheduling treatment		X			X		X	1,3
Non-operative treatment incl chemotherapy and biological therapy		X					X	1
Interventional options e.g. ablation		X					X	1
Postoperative management		X					X	1
TECHNICAL SKILLS								
Major hepatectomy + intra-op ultrasound				X				1
Extended hepatectomy				X				1
Peripheral wedge or segmental resection				X				1
PRIMARY LIVER CANCER								
OBJECTIVES								
Assessment and management of primary liver cancer								
KNOWLEDGE								
Applied Anatomy		X				X	X	1
Pathophysiology - hepatitis C		X				X	X	1
Pathology - differential diagnosis, HCC		X				X	X	1
Clinical Presentation		X				X	X	1
Complications		X				X	X	1
CLINICAL SKILLS								
History and Examination	X						X	1,3
Investigation		X					X	
Decision making		X			X		X	1,3
Assessment and management of liver insufficiency, Child's classification		X					X	1
Non-operative treatment incl chemoembolisation and biological therapy		X					X	1
Interventional options eg ablation		X					X	1
Postoperative management		X					X	1
TECHNICAL SKILLS								
Major hepatectomy				X				1
Periperal wedge or segmental resection				X				1
CHOLANGIOCARCINOMA AND GALLBLADDER CANCER								
OBJECTIVES								
Assessment and management of cholangiocarcinoma and gallbladder cancer								
KNOWLEDGE								
Applied Anatomy		X				X	X	1
Pathophysiology, incidental finding at cholecystectomy		X				X	X	1
Pathology, classification of cholangiocarcinoma		X				X	X	1
Clinical presentation		X				X	X	1
Complications		X				X	X	1
CLINICAL SKILLS								

History and Examination	X						X	1,3
Investigation, ERCP, MRCP, ST, MRU		X					X	1
Decision making		X			X		X	1,3
Non-operative treatment incl PDT, brachytherapy		X					X	1
Interventional options eg stenting		X					X	1
Postoperative management		X					X	1
TECHNICAL SKILLS								
Extended hepatectomy				X				1
Central liver resection				X				1
Hepatic artery lymphadenectomy				X				1
Hepaticodochojejunostomy				X				1
BENIGN AND CYSTIC TUMOURS								
OBJECTIVES								
Assessment and management of benign and cystic tumours of the liver								
KNOWLEDGE								
Applied Anatomy		X				X	X	1
Pathophysiology, simple and complex cysts, hydatid disease		X				X	X	1
Pathology		X				X	X	1
Clinical Presentation		X				X	X	1
Complications		X				X	X	1
CLINICAL SKILLS								
History and Examination	X						X	1,3
Investigation, CT, MRI		X					X	1
Decision making		X			X		X	1,3
Non operative options eg medical tratment of hydatid disease		X					X	1
Interventional options eg embolisation		X					X	1
Postoperative management		X					X	1
TECHNICAL SKILLS								
Fenestration				X				1
Liver resection				X				1
LIVER TRAUMA								
OBJECTIVES								
Diagnosis and early management of liver trauma including laparotomy and liver packing or resection.								
KNOWLEDGE								
Applied Anatomy - liver segments		X				X	X	1
Pathophysiology		X				X	X	1
Clinical Presentation - blunt and penetrating		X				X	X	1
Investigations - CT		X				X	X	1
Complications - haemobilia		X				X	X	1
CLINICAL SKILLS								
History and Examination	X						X	1,3
Investigation		X					X	1
Resuscitation		X					X	1
Decision making		X			X		X	1,3
Non-operative treatment		X					X	1
Interventional options eg hepatic artery embolisation, laparotomy		X					X	1
Postoperative management		X					X	1
TECHNICAL SKILLS								
Salvage surgery eg packing				X				1
Debridement & hepatectomy				X				1

COLORECTAL								
	CEX	CBD	DOPS	PBA	MSF	FRCS Section1	FRCS Section 2	GMP
HAEMORRHOIDS								
OBJECTIVES								
Competency in the diagnosis and all medical and surgical treatments for haemorrhoids								
KNOWLEDGE								
Aetiology of internal and external haemorrhoids		X				X	X	1
Anatomical distinctions between internal and external haemorrhoids		X				X	X	1
Classifications for internal haemorrhoids		X				X	X	1
Indications, contraindications and complications of non-operative treatment of haemorrhoids –topical applications, stool modifiers/softeners		X				X	X	1
Indications, contraindications and complications of office treatment of haemorrhoids		X				X	X	1
Indications, contraindications and complications of operative treatment of haemorrhoids		X				X	X	1
CLINICAL SKILLS								
Diagnosis of thrombosed external haemorrhoids, internal haemorrhoids, skin tags	X	X					X	1
Diagnosis and treatment of complications of office treatment of haemorrhoids – pain, bleeding, sepsis	X	X					X	1
Diagnosis and treatment of complications of operative treatment of haemorrhoids – urinary retention, haemorrhage, faecal impaction, infection stenosis, incontinence	X	X					X	1
Ability to manage haemorrhoids in IBD, pregnancy, HIV, Coagulopathy, portal hypertension		X					X	1
TECHNICAL SKILLS								
Haemorrhoids-OP treatment(injection/banding/infrared)			X					1
Haemorrhoidectomy-operative				X				1
Haemorrhoidectomy-stapled				X				1
ANAL FISSURE								
OBJECTIVE								
Competency in the diagnosis and the medical and surgical treatment of anal fissure								
KNOWLEDGE								
Aetiology of anal fissure		X				X	X	1
Anatomical location of a classic anal fissure		X				X	X	1
CLINICAL SKILLS								
Assessment of the signs and symptoms of anal fissure	X						X	1
Arrange the nonoperative management of anal fissure, including indications, contraindications,and complications of stool modifications/softeners, topical anaesthetics, topical pharmacology, botulinium toxin		X					X	1
Indications, contraindications, and complications of the following: lateral internal sphincterotomy anal stretch, anal advancement flap		X					X	1
Pre and postop care of lateral sphincterotomy, anal advancement flap for fissure		X					X	1
Treat complications resulting from operations; persistent fissure, incontinence, stenosis, ?key-hole? deformity		X					X	1
TECHNICAL SKILLS								
Lateral sphincterotomy				X				1
Anal advancement flap for fissure/stenosis				X				1
ABSCESS AND FISTULA								
OBJECTIVE								
Competency in the diagnosis and the medical and surgical treatment of abscess and fistula-in-ano								
KNOWLEDGE								
The origin of cryptoglandular abscess and fistula		X				X	X	1
Classification of anorectal cryptoglandular abscess-based on anatomical spaces		X				X	X	1
Parks classification of anal fistula		X				X	X	1
The natural history of surgically-treated anal abscess, including the risk of fistula formation		X				X	X	1
Operative strategy for anal fistula based on sphincter involvement/location		X				X	X	1
Complications resulting from abscess/fistula surgery: recurrence, incontinence		X				X	X	1
CLINICAL SKILLS								
Differentiate cryptoglandular abscess and fistula from other causes	X						X	1
Assessment of abscess/fistula by techniques designed to elucidate pathological anatomy: Goodsall's rule and digital examination, fistulogram, injections, MRI, endoanal ultrasound	X	X					X	1
Management of anorectal abscess including preoperative and postoperative care and the appropriate procedure based on anatomical spaces		X					X	1
Treatment options for fistula-in-ano including fibrin glue / fistula plug		X					X	1
Modify therapy for: necrotising fasciitis/Fournier's gangrene, Leukaemia, other immunocompromised patients, inflammatory bowel disease		X					X	1
Manage rectovaginal fistula with regard to classification, preoperative evaluation, and treatment of rectovaginal fistula, based on location and aetiology		X					X	1
Arrange pre and postop care for rectovaginal fistula due to obstetric injury		X					X	1
Manage rectourethral fistula depending on location and aetiology		X					X	1
TECHNICAL SKILLS								
Fistula-in-ano-low-lay open				X				1
Fistula-in-ano-high-drainage Seton				X				1
Fistula-in-ano-high-cutting seton				X				1
Fistula-in-ano-high-advancement flap				X				1
Fistula-in-ano - placement of fistula plug				X				1
Fistula-operation for rectovaginal fistula				X				1
HIDRADENITIS SUPPURITIVA								
OBJECTIVE								
Competency in the diagnosis and management of hidradenitis suppuritiva								
Knowledge								
Pathophysiology of hidradenitis suppurativa						X		1
Clinical skills								
Assess the symptoms and signs of hidradrenitis suppurativa	X	X					X	1,3
Manage hidradenitis suppuritiva by both medical and surgical means		X					X	1
PILONIDAL DISEASE								
OBJECTIVE								
Competency in the management of pilonidal disease.								
KNOWLEDGE								

Pathophysiology of pilonidal disease		X				X	X	1
CLINICAL SKILLS								
Assess the symptoms and signs of pilonidal disease: abscess, sinus		X					X	1,3
Surgical management of pilonidal disease		X					X	1
TECHNICAL SKILLS								
Pilonidal sinus-lay open				X				1
Pilonidal sinus-excision + suture				X				1
Pilonidal sinus-graft or flap				X				1
ANAL STENOSIS								
OBJECTIVE								
Competency in the management of anal stenosis.								
KNOWLEDGE								
Aetiology		X				X		1
CLINICAL SKILLS								
Arrange nonoperative management		X					X	1
Operative management of anal stenosis including division of stricture and flap procedures		X					X	1
TECHNICAL SKILLS				X				
Anal advancement flap for fissure/stenosis								1
PRURITUS ANI								
OBJECTIVE								
Competency in the management of pruritis ani.								
KNOWLEDGE								
Aetiology and clinical presentation of pruritus ani	X	X				X	X	1
CLINICAL SKILLS								
Arrange medical management and surgical management of pruritus ani with attention to: hygiene, diet, anatomical (obesity, deep anal cleft), coexisting anal pathology, systemic disease, gynaecologic-associated, infections, postantibiotic syndrome, contact dermatitis, dermatology, radiation, neoplasm, idiopathic pruritis ani		X					X	1
SEXUALLY TRANSMITTED DISEASE								
OBJECTIVE								
Appropriate management of sexually transmitted disease in consultation with other specialists								
KNOWLEDGE								
Aetiology of condylomata acuminata		X				X	X	1
Aetiology of HIV, syphilis, gonorrhoea, chlamydia, herpes		X				X	X	1
Influence of human papilloma virus serotypes on the subsequent development of cancer		X				X	X	1
CLINICAL SKILLS								
Diagnosis of condylomata acuminata	X						X	1,3
Diagnosis and treatment of HIV, syphilis, gonorrhoea, chlamydia, herpes		X					X	1
Medical (topical chemicals) and surgical treatment options for condylomata acuminata		X					X	1
TECHNICAL SKILLS								
Anal skin tags/warts-excision				X				1
VASCULAR MALFORMATIONS								
OBJECTIVES								
Management of patients with vascular malformations of the lower GI tract								
KNOWLEDGE								
Aetiology of angiodysplasia		X				X	X	1
Classification of haemangiomas, their clinical presentations and predominant GI sites		X				X	X	1
CLINICAL SKILLS								
Assess clinical presentation and endoscopic findings of angiodysplasia	X	X					X	1,3
Manage the patient with regard to indications for intervention and the operative and nonoperative management of angiodysplasia		X					X	1
Arrange radiologic and endoscopic evaluation of patients with haemangiomas		X					X	1
Arrange nonoperative and operative management, based on location		X					X	1
TECHNICAL SKILLS								
Colonoscopy-diagnostic				X				1
Colonoscopy-therapeutic				X				1
DIVERTICULAR DISEASE								
OBJECTIVES								
Ability to assess and manage diverticular disease								
KNOWLEDGE								
Aetiology of colonic diverticular disease		X				X	X	1
Incidence and epidemiology of colonic diverticular disease		X				X	X	1
Complications and classification of diverticular disease including : bleeding, perforation, abscess, fistula, stricture		X				X	X	1
Hinchey classification of complicated diverticular disease		X				X	X	1
CLINICAL SKILLS								
Recognise the clinical patterns (including right sided diverticular disease) presenting symptoms, physical findings and natural history of colonic diverticular disease	X	X					X	1,3
Arrange appropriate diagnostic studies in suitable sequence in the evaluation of both acute and chronic colonic diverticular disease		X					X	1
Medical and dietary management of colonic diverticular disease		X					X	1
Medical management for acute diverticulitis		X					X	1
Preoperative assessment including the indications for surgery, surgical procedures, and complications for acute diverticulitis		X					X	1
Choose appropriate surgical procedures including CT guided drainage for the management of acute diverticulitis		X					X	1
Perform laparoscopy and washout with drainage for appropriate patients				X			X	1
Recognise the indications for appropriate resection for diverticular disease including consideration of the extent of resection, use of ureteric stents, and indications for diversion		X		X			X	1
Appropriate surgical procedures for dealing with complications (fistula,stricture,recurrent episodes) of acute diverticulitis		X		X			X	1
Patient selection and techniques for reversal of Hartmann's procedure including use of ureteric stents and indications for diversion	X	X					X	1

TECHNICAL SKILLS								
Colectomy-left				X				1
Colectomy-sigmoid				X				1
Colostomy-construction				X				1
Hartmann's procedure				X				1
Hartmann's reversal				X				1
VOLVULUS								
OBJECTIVE								
Competency in the diagnosis and treatment of colonic volvulus								
KNOWLEDGE								
Aetiology of volvulus of the colon		X				X	X	1
Incidence and epidemiotogy of volvulus of the colon		X				X	X	1
Complications of colonic volvulus including obstruction, ischaemia, perforation		X				X	X	1
CLINICAL SKILLS								
Recognise the clinical patterns, presenting symptoms, physical findings, and natural history of colonic volvulus based upon its site	X	X					X	1,3
Arrange diagnostic studies in appropriate sequence		X					X	1
Appropriate operative procedures for volvulus depending on site		X		X			X	1
TECHNICAL SKILLS								
Sigmoidoscopy-rigid			X					1
Sigmoidoscopy-flexible				X				1
Colonoscopy-diagnostic				X				1
Colonoscopy-therapeutic - insertion of PEC button				X				1
RECTAL BLEEDING								
OBJECTIVE								
Ability to appropriately investigate rectal bleeding								
KNOWLEDGE								
Aetiology of lower GI bleeding		X				X	X	1
CLINICAL SKILLS								
Arrange appropriate evaluation of the patient based on age and other medical conditions	X	X					X	1
MASSIVE LOWER GI BLEEDING								
OBJECTIVE								
Management of massive lower GI tract bleeding								
KNOWLEDGE								
Aetiology of massive lower GI bleeding		X				X	X	1
Utility, specificity and sensitivity of colonoscopy, angiography and radio-iscope scintigraphy in evaluation of lower GI bleeding		X				X	X	1
Angiographic treatment of lower GI bleeding		X				X	X	1
Evaluation of recurrent lower GI bleeding, including use of enteroscopy, exploratory laparotomy and intraoperative endoscopy		X				X	X	1
CLINICAL SKILLS								
Assess haemodynamic stability and outline a resuscitation plan	X	X					X	1,3
Practice an algorithm for the evaluation of lower GI bleeding including exclusion of coagulopathy, gastroscopy, colonoscopy, selective mesenteric angiography, radio-isotope scintigraphy, on table colonoscopy with antegrade lavage		X					X	1
Endoscopic treatment of lower GI bleeding including coagulation, injection therapy and laser ablation		X		X			X	1
Manage the patient with regard to the indications for surgery, appropriate surgical procedures and their possible complications based upon cause, location, patient age and medical condition		X					X	1
Intraoperative evaluation and management of persistent massive lower GI bleeding without an identified site		X		X			X	1
Manage postoperative lower GI bleeding		X					X	1
TECHNICAL SKILLS								
Colonoscopy-diagnostic				X				1
Colonoscopy-therapeutic				X				1
Colectomy-total+ileostomy				X				1
Colectomy-right				X				1
Colectomy-left				X				1
Colectomy-sigmoid				X				1
Colostomy-construction				X				1
Hartmann's procedure				X				1
Ileostomy-construction				X				1
ENDOMETRIOSIS								
OBJECTIVE								
Management of endometriosis affecting the GI tract with the gynaecologists								
KNOWLEDGE								
Pathophysiology of endometriosis		X				X	X	1
Indications for intervention and the operative and non-operative management of endometriosis		X				X	X	1
CLINCIAL SKILLS								
Recognition of the clinical presentation and the endoscopic and laparoscopic findings of endometriosis	X	X					X	1
TECHNICAL SKILLS								
Assessment of degree of bowel involvement by endometriosis at laparoscopy				X				1
Laparoscopic resection of endometriosis from bowel wall by shave or disc excision				X				1
Laparoscopic anterior resection for endometriosis				X				1
COLON TRAUMA								
OBJECTIVE								
Competency in the appropriate diagnosis and treatment of colon trauma								
KNOWLEDGE								
Uses and limitations of the following imaging and diagnostic tests in the evaluation of blunt abdominal trauma								
Plain abdominal films		X				X	X	1
Computed tomography scan		X				X	X	1

Ultrasound		X				X	X	1
CLINICAL SKILLS								
Manage the patient with penetrating abdominal trauma with understanding of the criteria for exploratory laparotomy, wound exploration, peritoneal lavage	X	X					X	1,3
Appropriate surgical management of colon trauma in the context of the severity of associated injuries and stability of medical condition,		X		X			X	1
Manage a patient, either operatively or non-operatively with colonic trauma due to colonscopic perforation or laparoscopic perforation		X		X			X	1
TECHNICAL SKILLS								
Colon-primary repair				X				1
Colectomy-right				X				1
Colectomy-left				X				1
Colectomy-sigmoid				X				1
Colectomy-transverse				X				1
Colectomy-total+ileostomy				X				1
Hartmann's procedure				X				1
Colostomy-construction				X				1
Ileostomy-construction				X				1
RECTAL TRAUMA								
OBJECTIVE								
Competency in the diagnosis and treatment of rectal trauma								
KNOWLEDGE								
Identify clinical situations requiring evaluation for rectal trauma		X				X	X	1
CLINICAL SKILLS								
Diagnosis of rectal trauma and associated injuries	X	X					X	1,3
Surgical management of rectal trauma including drainage, faecal diversion, rectal washout, primary repair		X		X			X	1
TECHNICAL SKILLS								
Colostomy-construction				X				1
Hartmann's procedure				X				1
Ileostomy construction				X				1
Rectum-operation for trauma				X				1
ANAL TRAUMA								
OBJECTIVE								
Competency in the management of anal trauma								
KNOWLEDGE								
Be aware of the aetiology of anal trauma including obstetric injuries		X				X	X	1
CLINICAL SKILLS								
Manage traumatic anal injuries by faecal diversion, and/or repair	X	X		X			X	1,3
TECHNICAL SKILLS								
Colostomy construction				X				1
Anal sphincter repair including postanal repair, anterior sphincter repair + rectocele repair				X				1
FOREIGN BODIES								
OBJECTIVE								
Manage patients with rectal foreign bodies								
KNOWLEDGE								
Discuss risk of colonic or rectal perforation		X				X	X	X
CLINICAL SKILLS								
Evaluate patients with rectal foreign bodies	X						X	1.3
Perform various methods of extraction of foreign bodies and assess the indications for surgery				X				1
Manage postextraction evaluation with regard to indications for inpatient observation and indications for surgery		X					X	1
COLORECTAL NEOPLASIA								
OBJECTIVE								
Epidemiology of Colorectal Cancer and Polyps: Knowledge of the epidemiology of colorectal cancer and polyps								
Aetiology: Detailed knowledge of the aetiology of colorectal neoplasia.								
Colorectal Cancer Screening: Knowledge of the principles of colorectal cancer screening.								
Clinical Presentation: Recognise the symptoms and signs of colorectal cancer at different sites								
Staging and Prognostic Factors: Detailed understanding of staging and prognostic factors for colorectal cancer								
Management of Colon Cancer: Management of all patients with colon cancer								
KNOWLEDGE								
Epidemiology of colorectal cancer and polyps including incidence and prevalence, influence of socio economic, racial and geographic factors		X				X	X	1
Current screening strategies for the following								
General population,; moderate risk; high risk		X				X	X	1
Aetiology								
Diet: fat, fibre, calcium, selenium, vitamins (antioxidants), dietary inhibitors, alcohol and smoking, prostaglandin inhibitors		X				X	X	1
Adenoma-carcinoma sequence: evidence, categorise adenomas into low risk, intermediate and high risk and discuss screening procedures, significance of metaplastic polyps		X				X	X	1
De novo carcinoma		X				X	X	1
Susceptibility to colorectal cancer (CRC): family history, Personal Past History (CRC, Polyps, Other Cancers), groups at risk, genetic pathways for colorectal carcinogenesis		X				X	X	1
Hereditary nonpolyposis colorectal cancer (HNPCC): clincal features, Amsterdam criteria and modifications, extracolonic cancer risk, genetic basis, genetic testing/counselling, surveillance options/limitations, surgical options/limitations		X				X	X	1
Familial adenomatous polyposis: clinical definition, extracolonic lesions, cancer risk, genetic basis (genotype/phenotype correlation), genetic testing/counselling, variants, evolution of surgical management, management of desmoid disease, post-surgery surveillance		X				X	X	1
Hamartomas: definition, juvenile polyposis, Peutz-Jeghers syndrome		X				X	X	1
Clinical presentation - Distribution of CRC within the colon		X				X	X	1
Staging and prognostic factors								
The evolution of staging systems		X				X	X	1
Current staging systems (Dukes, TNM)		X				X	X	1

Clinical prognostic factors: age, mode of presentation,clinical stage, blood transfusion		X				X	X	1
Histologic/biochemical features: histological grade, mucin secretion, signet-cell histology, venous invasion, perineural invasion, nodal involvement/apical node, "pushing" vs infiltrating margin, tumour infiltrating lymphocytes, microsatellite instability (MSI), carcinoembryonic antigen		X				X	X	1
The significance of extent of disease including patterns of spread: direct continuity, intramural, transmural, distal margins, circumferential margins, transperitoneal, lymphatic, haematogenous, implantation		X				X	X	1
The assessment of disease extent: detection and management of synchronous lesions, distant metastatic disease, preop detection of local invasion, regional metastatic disease		X				X	X	1
Management of colorectal cancer								
Special considerations in the operative management of Colon cancer: colonic stents, intraluminal cytotoxic irrigation, on-table lavage, perforation, synchronous lesions, ureteric stenting, oophorectomy, "No-touch" technique, pregnancy		X				X	X	1
The rationale and indications for the use of adjuvant chemotherapy		X				X	X	1
CLINICAL SKILLS								
Recognise the clinical signs and symptoms of colorectal cancer	X	X					X	1,3
Manage malignant change within an adenomatous polyp		X					X	1
Familiarity with the indications and contraindications to surgery, operative technique, pre- and postoperative care, outcomes and the complications of colon cancer		X				X	X	1
En-bloc resections of adjacent organs		X		X			X	1
Extended resections to include total abdominal colectomy		X		X			X	1
TECHNICAL SKILLS								
Colonoscopy-diagnostic				X				1
Colonoscopy-therapeutic				X				1
Colectomy-left				X				1
Colectomy-right				X				1
Colectomy-transverse				X				1
Colectomy-sigmoid				X				1
Colectomy-total+ileostomy				X				1
Colostomy-construction				X				1
Ileostomy-construction				X				1
RECTAL CANCER								
OBJECTIVES								
Management of patients with rectal cancer.								
KNOWLEDGE								
Indications and contraindications, operative technique, pre and postop care, complications and outcomes for:								
Local therapy: transanal, Kraske transsacral, York-Mason transsphincteric, transanal endoscopic microsurgery(TEM), fulguration, laser, endocavitary radiation.		X				X	X	1
Sphincter-sparing resections: high and low anterior resection, tumour specific mesorectal excision, total mesorectal excision, coloanal anastomosis with or without colonic J pouch		X				X	X	1
Rationale and indications for the use of adjuvant chemoradiotherapy		X				X	X	1
Current preop staging techniques and role of pre and postop radiotherapy		X				X	X	1
CLINICAL SKILLS								
Recognise the clinical signs and symptoms of rectal cancer	X	X					X	1,3
Familiarity with endoscopic diagnosis and CT and MRI imaging approaches		X					X	1
Indications for transanal treatment		X					X	1
TECHNICAL SKILLS								
Transanal microsurgery				X				1
Peranal excision of rectal lesion				X				1
Rectum-posterior approach				X				1
Rectum-anterior resection (stapled)				X				1
Rectum-anterior resection - coloanal anastomosis				X				1
Rectum-AP excision (including ELAPE)				X				1
Posterior pelvic clearance				X				1
Pelvic exenteration				X				1
Reoperation-pelvic malignancy				X				1
DETECTION AND TREATMENT OF RECURRENT AND METACHRONOUS COLORECTAL CANCER								
OBJECTIVES								
The Detection and Treatment of Recurrent and Metachronous Colon Cancer: Ability to detect and manage recurrent colon and rectal cancer.								
Pain Management:Ability to manage severe pain								
KNOWLEDGE								
Patterns of recurrence		X				X	X	1
Detection of recurrence using CEA, colonoscopy and imaging		X				X	X	1
Pain Management, including programmes for intractible pain		X				X	X	1
CLINICAL SKILLS								
Treatment of recurrent colorectal cancer: natural history, chemotherapy, resection, local ablation		X					X	1
Treatment of pelvic recurrence with radiation, chemotherapy, resection		X					X	1
Manage Carcinomatosis: with bowel obstruction, with ureteral obstruction		X					X	1
Palliative care		X					X	1
TECHNICAL SKILLS								
Pelvic malignancy - reoperation				X				1
MISCELLANEOUS MALIGNANT LESIONS								
OBJECTIVES								
Ability to manage more unusual tumours of the colon and rectum.								
CLINICAL SKILLS								
Recognise the clinical presentation, assess prognostic factors, and manage carcinoid ? Ileal, appendiceal, colonic, rectal, carcinoid syndrome		X				X	X	1,3
Recognise the clinical presentation, assess prognostic factors, and manage lymphoma including its classification, treatment and risk factors	X	X				X	X	1,3
Recognise the clinical presentation, assess prognostic factors, and manage gastrointestinal stromal tumours	X	X				X	X	1,3
Recognise the clinical presentation, assess prognostic factors, and manage tumours metastasising to the colon - breast, melanoma, ovary	X	X				X	X	1,3

ANAL NEOPLASIA								
OBJECTIVES								
Understanding of the pathophysiology and the management of anal neoplasia								
Ability to diagnose and manage anal canal neoplasia								
Ability to diagnose and manage anal margin neoplasia								
KNOWLEDGE								
The significance of the anatomical distinction between the anal margin and the anal canal tumours		X				X	X	1
The differential lymphatic drainage of the anal canal and margin		X				X	X	1
The histological transition of the anal canal		X				X	X	1
Demographics of anal neoplasia		X				X	X	1
Changing incidence of anal neoplasia		X				X	X	1
Association with sexual practices		X				X	X	1
High-risk groups		X				X	X	1
Staging classification of anal neoplasia		X				X	X	1
Epidermoid carcinoma: histologic types, routes of metastasis/recurrence		X				X	X	1
Role of salvage therapies: abdominoperineal resection, chemotherapy, radiotherapy		X				X	X	1
Other anal canal malignancies: adenocarcinoma, small cell cancer, melanoma		X				X	X	1
CLINICAL SKILLS								
Diagnosis and management of lesions of the anal canal including HPV genotypes associated with cancer, HIV infection, anal intraepithelial neoplasia(AIN), immunosuppression	X	X					X	1,3
Squamous cell carcinoma: clinical features, differential diagnosis, surgical management by local excision, chemoradiotherapy and abdominoperineal resection		X					X	1
Basal cell carcinoma: clinical features, differential diagnosis, management		X					X	1
Bowen's disease: histology, differential diagnosis, natural history, related cancers, management including anal mapping, wide local excision, reconstruction and observation in patients with HIV		X					X	1
Paget's disease: theories of histiogenesis, clinical features, management		X					X	1
Buschke-Lowenstein tumour: clinical presentation and course, treatment options		X					X	1
Treatment of epidermoid carcinomas based on stage: local excision, chemoradiotherapy, abdominoperineal resection, inguinal node management		X					X	1
TECHNICAL SKILLS								
Anal tumour-excision				X				1
Rectum-AP excision				X				1
PRESACRAL LESIONS								
OBJECTIVES								
Ability to manage presacral lesions								
CLINICAL SKILLS								
presentation, differential diagnosis, diagnostic evaluation and treatment of congenital lesions: epidermoid cysts, teratoma, anterior sacral meningocele, rectal duplication	X	X					X	1
clinical presentation, differential diagnosis, diagnostic evaluation and treatment of neoplastic lesions: osseous (Ewing;s sarcoma, giant-cell tumour), chordoma, neurogenic, miscellaneous	X	X					X	1
FAECAL INCONTINENCE								
OBJECTIVES								
Faecal Incontinence-Epidemiology: Understanding of the epidemiology of faecal incontinence								
Faecal Incontinence-Evaluation: Understanding of the causes, clinical findings and physiological findings in faecal incontinence								
Faecal Incontinence-Non-operative Management: Ability to manage faecal incontinence by non operative means								
Faecal Incontinence-Operative management: Competency in the operative treatment of faecal incontinence								
KNOWLEDGE								
Epidemiology								
Classification of the various types of incontinence, their incidence and their pathophysiology		X				X	X	1
Evaluation								
Anatomical, neurological, dermatological, and endoscopic findings that differentiate various types of incontinence		X				X	X	1
Normal and abnormal findings in imaging studies used in incontinence including MRI		X				X	X	1
Knowledge of a scoring system for faecal incontinence		X				X	X	1
Indications, uses and results of biofeedback in incontinence		X				X	X	1
Indications for and techniques used in surgery for incontinence, including complications and functional results: postanal repair, anal sphincter repair, muscle transpositions, artificial bowel sphincter, sacral nerve stimulation		X				X	X	1
Understand the concept of antegrade continent enema conduits		X				X	X	1
CLINICAL SKILLS								
Take a directed history to differentiate types of incontinence	X						X	1,3
Perform a physical examination to differentiate types of incontinence	X						X	1,3
Identify and interpret anorectal physiology tests		X					X	1
Outline a non-operative bowel management plan incorporating : dietary measures, medications, enemas, perineal skin care, anal plug		X					X	1
Make a treatment plan for a patient with incontinence, including knowledge of side-effects		X					X	1
Select patients for operation according to the physical and laboratory findings		X					X	1
Select type of operative repair		X					X	1
Select patients for temporary and permanent faecal diversion		X					X	1
TECHNICAL SKILLS								
Anal sphincter repair including postanal repair, anterior sphincter repair				X				1
Anal sphincter - artificial sphincter/sacral nerve stimulation				X				1
RECTAL PROLAPSE								
OBJECTIVES								
Competency in the management of all patients with rectal prolapse								
KNOWLEDGE								
The incidence, pathophysiology and epidemiology of rectal prolapse		X				X	X	1
Understanding of internal intussusception, with its radiological findings and treatment options		X				X	X	1
Understand the perineal and abdominal surgical options for prolapse with the indications for each approach, complications, recurrence rate and functional results		X				X	X	1
CLINICAL SKILLS								

Identify the associated anatomical findings of rectal prolapse and its clinical presentation including functional disturbances and physical findings	X	X					X	1,3
Differentiate between mucosal prolapse, prolapsing internal haemorrhoids and rectal prolapse	X	X					X	1,3
Appropriate management of incarcerated and strangulated rectal prolapse		X					X	1
Manage constipation and incontinence in the context of rectal prolapse		X					X	1
Perform operation for rectal prolapse - perineal or abdominal; open or laparoscopic		X		X			X	1
Manage a patient with recurrent rectal prolapse		X					X	1
TECHNICAL SKILLS								
Prolapse-abdominal rectopexy				X				
Prolapse -rectopexy + sigmoid resection				X				
Prolapse-perineal repair				X				
STARR Procedure				X				
Ventral mesh rectopexy				X				
SOLITARY RECTAL ULCER								
OBJECTIVES								
Ability to diagnose and manage solitary ulcer syndrome								
Knowledge								
Understand the associated pelvic floor disorder		X				X	X	1
CLINICAL SKILLS								
Recognise the clinical presentation, endoscopic and histological findings in a patient with solitary rectal ulcer	X	X					X	1,3
Utilise appropriate medica/surgical treatment options		X					X	1
CONSTIPATION								
OBJECTIVE								
Investigation of patients with constipation and treatment of patients with non-specific constipation.								
Competency in the management of outlet obstruction constipation								
Motility Disorders: Competency in the management of colonic inertia and colonic pseudo-obstruction.								
KNOWLEDGE								
Normal colonic physiology (including gut hormones and peptides) and the process of defaecation		X				X	X	1
Definition of constipation and its epidemiology		X				X	X	1
Classification of types and causes of constipation differential diagnosis in a patient with constipation		X				X	X	1
Different types of laxatives and describe the indications, contraindications, modes of action, and complications of each: stimulant, osmotic, bulk-forming, lubricant		X				X	X	1
Diagnostic criteria for anismus		X				X	X	1
Indications, techniques, complications and results of rectocele repair		X				X	X	1
Role of colectomy in colonic inertia including indications, complications and expected results		X				X	X	1
Common causative factors for colonic pseudo-obstruction		X				X	X	1
CLINICAL SKILLS								
Take a directed history for a patient with constipation and perform a directed physical examination	X						X	1,3
Arrange a treatment plan based on endoscopic, radiological and physiology tests: defaecating proctogram, transit studies, anorectal manometry, EMG, ballooon expulsion, contrast enema, endoscopy		X					X	1
Identify melanosis coli on endoscopy and discuss its significance		X		X			X	1
Plan a treatment programme for a patient with constipation that may include the following: dietary measures, fibre, laxatives, prokinetic medications, enemas, suppositories, psychological support		X					X	1
Management of anismus: medical management, biofeedback, botulinum toxin, surgery		X					X	1
Manage short segment/adult Hirschsprung's disease		X					X	1
Recognise the clinical presentation of symptomatic rectocele		X					X	1
Diagnosis and both non-operative and operative management of enterocele and sigmoidocele		X					X	1
Evaluation and management of recurrent constipation after colectomy		X					X	1
Evaluate a patient with suspected colonic pseudo-obstruction	X	X					X	1
Manage a patient with colonic pseudo-obstruction by medical or surgical means		X		X			X	1
TECHNICAL SKILLS								
Rectocele repair				X				1
IRRITABLE BOWEL SYNDROME								
OBJECTIVE								
Competency in the management of irritable bowel sydrome								
CLINICAL SKILLS								
Diagnose irritable bowel syndrome and outline a medical treatment programme that may include the following: diet, fibre, laxatives, prokinetic medications, enemas, suppositories, psychological support	X	X				X	X	1
CHRONIC RECTAL PAIN SYNDROME								
OBJECTIVE								
Competency in the management of chronic rectal pain syndromes								
KNOWLEDGE								
Differential diagnosis for rectal pain including levator ani syndrome, proctalgia fugax, chronic idiopathic pelvic pain, coccygodynia		X				X	X	1
CLINICAL SKILLS								
Manage pelvic pain by means of: bowel management programmes, analgesics, antidepressants, levator massage, electrogalvanic stimulation, nerve blocks, steroid injections, botulinum toxin injections, biofeedback, psychiatric or psychological treatment, surgery	X	X					X	1,3
INFLAMMATORY BOWEL DISEASE - GENERAL								
OBJECTIVES								
History: Knowledge of the history of IBD								
Aetiology: Knowledge of the aetiology of inflammatory bowel disease								
Epidemiology: Knowledge of the epidemiology of inflammatory bowel disease								
Clinical manifestations: Recognition of the clinical manifestations of inflammatory bowel disease and its severity.								

Differential diagnosis: Competency in the diagnosis of inflammatory bowel disease including indeterminate colitis.								
Reproduction and inflammatory bowel disease: Ability to advise on reproduction and IBD and to manage IBD during pregnancy.								
KNOWLEDGE								
Aetiology		X				X	X	1
The contribution of genetics and immune function to the development of inflammatory bowel disease (IBD)		X				X	X	1
The possible influence of infectious agents, psychological issues and environmental factors		X				X	X	1
Epidemiology - Crohn's and ulcerative colitis		X				X	X	1
Clinical manifestations								
The criteria for severity of disease as defined by Crohn's disease activity index and Truelove classification		X				X	X	1
Differential Diagnosis								
The endoscopic, radiographic, and laboratory findings of ulcerative colitis and Crohn's disease		X				X	X	1
The distinguishing histologic characteristics of ulcerative colitis and Crohn's disease		X				X	X	1
The differential diagnosis of Inflammatory Bowel Disease		X				X	X	1
Indeterminate colitis		X				X	X	1
Reproduction and Inflammatory Bowel Disease								
The interaction of IBD and pregnancy		X				X	X	1
The impact of IBD on fertility		X				X	X	1
Drug therapy, investigations and surgery during pregnancy		X				X	X	1
CLINICAL SKILLS								
Recognise and compare the clinical pattern, presenting symptoms, physical findings and natural history of ulcerative colitis and Crohn?s disease	X	X					X	1,3
The extraintestinal manifestations of IBD		X					X	1
Diagnostic assessment for inflammatory bowel disease to exclude other colitides		X					X	1
ULCERATIVE COLITIS								
OBJECTIVES								
Medical management of ulcerative colitis: Competency in the medical management of ulcerative colitis in consultation with gastroenterology.								
Cancer in ulcerative colitis: Understanding of the risk of cancer in ulcerative colitis and its management.								
Surgical management of ulcerative colitis: Competency in the surgical treatment of ulcerative colitis.								
Postoperative management of ulcerative colitis: Competency in the postoperative care of patients with ulcerative colitis, including ileoanal pouch and its complications.								
KNOWLEDGE								
Medical management								
The mechanism of action, indication, appropriate dosage, side effects, and toxicity of the drugs used for the treatment of ulcerative colitis: aminosalicylates, corticosteroids, antibiotics, immunosuppressive drugs, other drugs		X				X	X	1
Understand the role of nutritional support in the management of ulcerative colitis		X				X	X	1
The risk of cancer, with the factors increasing risk		X				X	X	1
Surgical Management								
Be able to identify the indications for surgery for ulcerative colitis including: intractability, severe acute colitis, toxic megacolon, haemorrhage, prophylaxis for carcinoma/dysplasia, carcinoma, complications of extraintestinal manifestations, complications of medications		X				X	X	1
Understand the operative management of indeterminate colititis		X				X	X	1
CLINICAL SKILLS								
Recognise the presentation and manage proctitis, left-sided colitis, extensive colitis, severe acute colitis, toxic megacolon	X	X					X	1,3
Joint management of a patient unresponsive to initial treatment		X			X		X	1,3
Organise surveillance and interpret biopsy results of dysplasia		X					X	1
Indications and contraindications, operative technique, postoperative care, functional results, and complications of the operations for ulcerative colitis		X					X	1
Postoperative management								
Recognise and manage the following conditions associated with the ileoanal pouch anal anastomosis: intestinal obstruction, pelvic sepsis, pouchitis, anastomotic/pouch vaginal and perineal fistula, stenosis, sexual dysfunction, retained mucosa	X	X					X	1
Follow-up for retained rectum after colectomy		X					X	1
TECHNICAL SKILLS								
Colectomy-total+ileostomy				X				1
Colectomy-total+ileorectal anastomosis				X				1
Rectum-panproctocolectomy+ileostomy				X				1
Ileoanal anastomosis+creation of pouch				X				1
CROHNS DISEASE								
OBJECTIVES								
Medical management of Crohn's disease: Competency in the medical management of Crohn's disease in consultation with gastroenterology.								
Cancer in Crohn's disease: Understanding of the risk of cancer in Crohn's disease and its management.								
Complications of Crohn's disease: Competency in the management of the complications of Crohn's disease.								
Surgical management of Crohn's disease: Competency in the surgical management of Crohn's disease.								
Anorectal Crohn's Disease: Competency in the management of anorectal Crohn's disease.								
KNOWLEDGE								
Medical Management								
The mechanism of action, indication, appropriate dosage, side effects, and toxicity of the drugs used for the treatment of Crohn's disease: aminosalicylates, corticosteroids, antibiotics, immunosuppressive drugs, cytokine modulators		X				X	X	X
Understand the role of nutritional support in Crohn's disease		X				X	X	X
Risk of large and small bowel carcinoma in Crohn's disease and risk factors		X				X	X	X
Awareness of the indications for surgery for Crohn's disease including: intractability, intestinal obstruction, fistula/abscess, complications		X				X	X	X
CLINICAL SKILLS								
Treatment specific to the site of involvement in a patient with Crohn's disease		X					X	X
Medical management of a patient unresponsive to initial treatment		X					X	X
Organise surveillance and interpret biopsy results of dysplasia		X					X	X

Recognise and outline the management of the following complications of Crohn's disease: obstruction/stenosis, fistula, abscess, perforation, haemorrhage, toxic megacolon, severe acute colitis, genito-urinary disease, growth retardation, malnutrition, extraintestinal manifestations		X					X	X
Indications and contraindications, operative technique, postoperative care, functional results, risk of recurrence, and complications of operations for Crohn's disease		X					X	X
Recognise and discuss the management of the following manifestations of anorectal Crohn's disease: abscess, anal fistula, fissure, rectovaginal fistula, stricture, ulceration, incontinence, skin tags, haemorrhoids		X					X	X
TECHNICAL SKILLS								
Rectum-panproctocolectomy+ileostomy				X				X
Colectomy-right				X				X
Colectomy-transverse				X				X
Colectomy-left				X				X
Colectomy-sigmoid				X				X
Colectomy-total+ileostomy				X				X
Colectomy-total+ileorectal anastomosis				X				X
Crohn's-ileocaecectomy				X				X
Strictureplasty-Crohn's				X				X
Gastroenterostomy				X				X
Intestinal fistula operation				X				X
Fistula-in-ano-high-advancement flap				X				X
Fistula-in-ano-high-cutting seton				X				X
Fistula in ano-high-drainage seton				X				X
Fistula-in-ano-high-other				X				X
Fistula-in-ano-low-lay open				X				X
Fistula-operation for rectovaginal fistula				X				X
ISCHAEMIC COLITIS								
OBJECTIVES								
Competency in the management of ischaemic colitis.								
KNOWLEDGE								
Vascular anatomy of the colon		X				X	X	1
The aetiology of acute colonic ischemia		X				X	X	1
CLINICAL SKILLS								
Recognise the clinical presentation of ischaemic colitis	X	X					X	1
Recognise the natural history, diagnosis, and be able to manage ischaemic colitis		X					X	1
Recognise and manage ischaemic colitis after abdominal aortic aneurysm repair		X					X	1,3
RADIATION COLITIS								
OBJECTIVE								
Competency in the management of radiation bowel disease.								
KNOWLEDGE								
Risk factors for and susceptibility to injury from radiotherapy		X				X	X	1
Mechanisms of acute and chronic radiation injury		X				X	X	1
Microscopic findings of radiation injury		X				X	X	1
Understand surgical options for radiotherapy injuries		X				X	X	1
CLINICAL SKILLS								
Complications of radiotherapy: fistula, obstruction, malabsorption, necrosis, haemorrhage		X					X	1
Arrange local therapy for radiation proctitis		X					X	1,3
INFECTIOUS COLITIS								
OBJECTIVES								
Diagnosis and management of infectious colitis in consultation with infectious disease physicians								
KNOWLEDGE								
Epidemiology, aetiology, pathogenesis, laboratory and endoscopic evaluation, medical management and indications for surgery for clostridium difficile colitis		X				X	X	1
In suspected infectious colitis understand relevance of travel history, role of stool culture, testing for ova, cysts and parasites and hot stool sample for amoebiasis, role of lower GI endoscopy with biopsy for histological evaluation and culture, role of rectal and perineal swabs, role of serology in the detection of amoebiasis and strongyloidiasis, infectious colitis as a precipitating factor for inflammatory bowel disease		X				X	X	1
Management of diarrhoea in the immunocompromised patient including HIV		X					X	1
MISCELLANEOUS COLITIDES								
OBJECTIVES								
Competency in the management of the less common colitides.								
CLINICAL SKILLS								
Manage the following: diversion colitis, neutropenic enterocolitis, collagen-vascular colitis, microscopic colitis	X	X		X		X	X	1
STOMAS								
OBJECTIVES								
Indications for stomas: Understanding of the indications for stomas and different types of stoma								
Preoperative Evaluation for stomas: Competency in the preoperative care of a patient requiring a stoma								
Stoma creation and closure: Competency in the construction and closure of an ileostomy and a colostomy								
Postoperative Care: Competency in the postoperative care of patients after stoma formation								
Complications: Competency in the management of early and late complications of stoma formation								
Stoma Management: Competency in the management of stomas in consultation with stoma care nurses								
Stoma Physiology: Knowledge of the physiology of different stomas.								
Patient Education and Counselling: Knowledge of the information needed by a patient with a stoma								
KNOWLEDGE								
Indication for stoma								
Indications for colostomy		X				X	X	1

Indications for ileostomy		X				X	X	1
Types of stomas (loop, end, end loop, double barrel) in relation to indications		X				X	X	1
Complications - High-output ileostomy		X				X	X	1
Stoma management								
Stoma appliances, and appropriate selection		X				X	X	1
Indications, contraindications and complications for stoma irrigation		X				X	X	1
Stoma Physiology								
The physiologic changes associated with ileostomy, colostomy, urostomy		X				X	X	1
Normal ileostomy function including anticipated daily outputs and changes that occur in output with postoperative adaptation		X				X	X	1
Causes of high output stomas		X				X	X	1
Differential diagnosis of high output		X				X	X	1
Patient Education and Counselling - medication dosage and absorbtion		X				X	X	1
CLINICAL SKILLS								
Preoperative evaluation								
Discuss ostomy expectations with patients regarding function and anticipated output along with precautions for fluid and electrolyte balance, depending upon the type of stoma involved	X	X					X	1,3
Demonstrate proper siting and marking techniques for all stoma placement, including such considerations as scars, the umbilicus, skin creases, belt and clothing and positioning (standing, sitting and supine positions)	X	X					X	1,3
Stoma creation and closure								
Stoma construction and closure				X			X	1
Organise preparation for stoma closure in the case of temporary faecal diversion including: timing of closure, necessary preoperative evaluation, care of the postoperative stoma site wound		X					X	1
Postoperative Care								
Appreciate the normal postoperative course for colostomy and ileostomy function		X					X	1
Recognise the signs, symptoms and management for the following complications that occur in the immediate postoperative period: ischaemia, mucocutaneous separation		X					X	1
Complications								
Recognise and manage high-output ileostomy		X					X	1
Recognise parastomal skin irritation of significance, list a differential diagnosis, and make recommendations for appropriate management	X	X					X	1
Manage ileostomy and colostomy prolapse		X					X	1
Management of parastomal hernia		X					X	1
Recognise and manage skin conditions associated with stomas		X					X	1
Recognise and manage ileostomy food obstruction		X					X	1
Stoma Management								
Early postoperative management of conventional stoma		X					X	1
Advise on various skin barriers and accessory products available for the management of stomas	X	X					X	1,3
Management of a retracted stoma		X					X	1
Advise on dietary considerations for patients with an ileostomy or a colostomy, including impact of diet on stoma output, flatus, odour, bolus obstruction	X	X					X	1,3
Appropriately manage fluid and electrolyte abnormalities		X					X	1
Patient education and counselling								
Demonstrate stoma bag emptying, stoma bag changing, management of leakage	X	X						1
TECHNICAL SKILLS								
Ileostomy-construction								1
Colostomy-construction				X				1
Ileostomy-closure				X				1
Colostomy-closure				X				1
Hartmann's reversal				X				1
Colostomy-revision				X				1
Ileostomy-revision				X				1
Hernia repair-parastomal				X				1

BREAST								
	CEX	CBD	DOPS	PBA	MSF	FRCS Section 1	FRCS Section 2	GMP
BREAST ASSESSMENT								
OBJECTIVES								
Understand principle features of breast anatomy, physiology								
Assess and manage patients presenting with breast symptoms								
KNOWLEDGE								
Normal anatomy								
Breast and nipple		X				X	X	1
Axilla and related drainage		X				X	X	1
Chest wall		X				X	X	1
Abdominal wall		X				X	X	1
Breast aesthetics - measurements		X				X	X	1
Embryology / developmental abnormalities								
Accessory nipples, hypo/hypertrophy, asymmetry		X				X	X	1
Breast and endocrine physiology								
Endogenous hormones								
Puberty / menarche		X				X	X	1
Pregnancy		X				X	X	1
Lactation		X				X	X	1
Menopause		X				X	X	1
Exogenous hormones								
OCP, HRT, SERMS etc		X				X	X	1
Breast assessment								
Triple assessment								
Understand indications,use, interpretation		X				X	X	1
Diagnostic grid/concordance		X				X	X	1
Imaging:								
Ultrasound, mammography: standard views		X				X	X	1
Pathology								
Cytology - FNAC		X				X	X	1
Histology		X				X	X	1
core biopsy		X				X	X	1
Punch biopsy		X				X	X	1
Extended assessment								
Additional mammography views		X				X	X	
MRI		X				X	X	
vacuum biopsy		X				X	X	
surgical biopsy		X				X	X	
Management								
Record findings - diagnostic grid		X				X	X	
Interpret findings		X				X	X	
develop plan		X				X	X	
communicate findings and plan		X				X	X	
CLINICAL SKILLS								
History	X						X	1,3
Examination								
Breast, nodal basin, relevant systems	X						X	1,3
Investigation								
Triple assessment	X	X					X	1
Imaging techniques								
Ultrasound interpretation	X	X					X	1
Mammography interpretation	X	X					X	1
TECHNICAL SKILLS								
Fine needle aspiration								
Cytology; cyst/abscess drainage			X					1
Image guided			X					1
Core biopsy								
Clinical			X					1
Image guided			X					1
Punch biopsy			X					1
BENIGN BREAST CONDITIONS								
OBJECTIVES								
Assess and manage benign breast lumps, breast pain, nodularity and conditions affecting the nipple								
Assess and manage congenital, developmental and aesthetic problems of the breast								
KNOWLEDGE								
Applied Anatomy		X				X	X	1
Embryology		X				X	X	1
Pathophysiology								
BBC		X				X	X	1
Cysts		X				X	X	1
Fibroadenoma		X				X	X	1
Duct disease / ectasia / papilloma		X				X	X	1
Breast pain		X				X	X	1
Skin conditions eg eczema		X				X	X	1
Gynaecomastia		X				X	X	1
Breast sepsis - Lactational microbiology		X				X	X	1
Breast sepsis - non lactational		X				X	X	1
Periductal - microbiology		X				X	X	1
Other - microbiology		X				X	X	1
CLINICAL SKILLS								
History and Examination								
Breast, nodal basin, relevant systems	X						X	1,3
Investigation								

Triple assessment	X	X					X	1
Imaging techniques								
Ultrasound interpretation	X	X					X	1
Mammography interpretation	X	X					X	1
MRI - indications and interpretation	X	X					X	1
Management plan	X	X					X	1
TECHNICAL SKILLS								
Drainage of breast abscess								
Open				X				1
Image guided			X					1
Breast lump excision				X				1
Excision image guided lesion				X				1
Microdochectomy				X				1
Major duct excision				X				1
Fistulectomy				X				1
Nipple eversion				X				1
Reduction Mammoplasty				X				1
Mastopexy				X				1
Augmentation				X				1
BREAST CANCER								
OBJECTIVES								
Diagnose, assess, manage breast cancer - symptomatic and screen detected								
Assess and manage atypical and precancerous lesions								
Diagnose, assess and manage less common and advanced presentations of breast cancer								
Assess and select patients for oncoplastic and reconstructive procedures								
Perform oncoplastic and plsatic surgical breast procedures and manage postoperative care and follow-up								
KNOWLEDGE								
Genetics of breast cancer								
Family History		X				X	X	1
NICE Guidelines		X				X	X	1
Risk lesions - LCIS, ADH		X				X	X	1
Pathology of in-situ breast cancer								
Clinicopathology		X				X	X	1
Epidemiology		X				X	X	1
Invasive breast cancer								
Taxonomy		X				X	X	1
Staging		X				X	X	1
Epidemiology		X				X	X	1
Cancer biology		X				X	X	1
Prognostic factors								
Chief prognostic factors		X				X	X	1
Relevance to treatment		X				X	X	1
Risk assessment / genetic testing / counselling								
Advice, diet, lifestyle, screening, risk reduction surgery		X				X	X	1
Screening								
Evidence, organisation		X				X	X	1
Delivery, imaging modality, results		X				X	X	1
Cancer staging								
Bone scan, MRI, CT, PET, tumour markers etc		X				X	X	1
Management/treatment								
Risks and benefits of treatment/no treatment		X				X	X	1
Treatment								
Indications for breast conservation / mastectomy / reconstruction		X				X	X	1
Neoadjuvant therapies including primary medical therapy		X				X	X	1
Indications for radiotherapy		X				X	X	1
Adjuvant chemotherapy - principles and indications		X				X	X	1
Endocrine therapies		X				X	X	1
Herceptin		X				X	X	1
Breast Service Delivery and QA								
Multidisciplinary Teams	X	X			X		X	1,2,3
Guidelines and protocols - network, national, etc								
NICE		X				X	X	1
ABS		X				X	X	1
NHSBSP		X				X	X	1
Others: ASCO, ST Gallen,		X				X	X	1
CLINICAL SKILLS								
History and Examination								
Breast, nodal basin, relevant systems	X	X					X	1,3
Investigation								
Triple assessment	X	X				X	X	1
Imaging techniques								
Ultrasound interpretation	X	X					X	1
Mammography interpretation	X	X					X	1
MRI - indications and interpretation	X	X					X	1
Management plan								
Develop and record plan		X					X	1
Communication / informed consent		X			X		X	1,3
TECHNICAL SKILLS								
Wide local excision								
Palpable lesion				X				1
impalpable - localised - wire/skin mark etc				X				1
Re-coning				X				1
therapuetic mammoplasty - various pedicles/incisions				X				1
Grisotti flap				X				1

Round block (Benelli)				X				1
Mastectomy								
Simple				X				1
Modified radical				X				1
skin sparing - nipple preserving				X				1
skin sparing - nipple sacrificed				X				1
Skin reducing				X				1
Axillary surgery								
removal axillary breast tissue/nipple				X				1
Lymph node biopsy				X				1
Axillary clearance -Primary . Level 1-3				X				1
Axillary clearance -completion (delayed)				X				1
Axillary surgery - repeat (recurrence)				X				1
SLNB (dual technique)				X				1
SLNB (blue dye only)				X				1
Reconstructive surgery - immediate and delayed								
Implant only - variations				X				1
Latissimus dorsi flap + implant				X				1
Latissimus dorsi flap - autologous				X				1
TRAM flap pedicled				X				1
TRAM flap free				X				1
DIEP flap				X				1
Other flaps				X				1
Nipple areolar complex								
Nipple free graft				X				1
Nipple reconstruction								
local flap				X				1
Skin graft				X				1
Nipple tattoo				X				1
Nipple sharing				X				1
Symmetrisation surgery								
Reduction mammoplasty				X				1
Mastopexy				X				1
Augmentation				X				1
Gyneacomastia				X				1
Developmental corections - hypoplasia				X				1
Lipomodelling				X				1
Liposuction - Mammotome/encore system				X				1
Vacuum excision				X				1
Skin grafting - Chest wall resurfacing				X				1
Salvage surgery - VAC dressings				X				1
Complex wound management				X				1
New techniques				X				1
Breast Aesthetics								
Breast dimensions	X							1
Reduction mammoplasty				X				1
Mastopexy				X				1
Oncoplastic techniques				X				1
Therapeutic mammoplasty				X				1
Round block				X				1
Grisotti				X				1
Symmetrisation surgery				X				1

ENDOCRINE								
	CEX	CBD	DOPS	PBA	MSF	FRCS Section 1	FRCS Section 2	GMP
NECK SWELLINGS								
OBJECTIVE								
Assesment and Management of Neck Swellings								
KNOWLEDGE								
Anatomy of triangles of neck								
Submental, submandibular, anterior, posterior		X				X	X	1
Causes of enlargement of salivary glands / thyroid gland								
Thyroglossal cyst, lymph nodes,		X				X	X	1
Skin and soft tissue including branchial cyst		X				X	X	1
Investigation of neck swellings								
Diagnostic imaging, ENT assessment, pathology and biochemistry		X				X	X	1
CLINICAL SKILLS								
History and examination of neck swellings	X						X	1,3
Investigation		X					X	1
Diagnostic imaging		X					X	1
ENT assessment		X					X	1
Pathology		X				X	X	1
Biochemistry		X				X	X	1
TECHNICAL SKILLS								
Biopsy - FNA			X					1
Cervical lymph node biopsy			X					1
THYROID								
OBJECTIVE								
Investigation and perioperative management of thyroid swellings and thyrotoxicosis								
Preop assessment: diagnosis and assessment of thyroid swellings and thyrotoxicosis								
Operative management: operative management of thyroid swellings (benign and malignant) and thyrotoxicosis								
Post operative management: postoperative care after thyroid surgery								
KNOWLEDGE								
Anatomy of the neck, in particular thyroid and parathyroid glands		X				X	X	1
Pathophysiology of thyroid swellings								
Generalised/solitary; functioning/non-functioning		X				X	X	1
Benign disorders of thryroid growth								
Diffuse enlargement, nodular disease		X				X	X	1
Disorders of thyroid function								
Causes, Treatment options		X				X	X	1
Medical treatment of thyrotoxicosis		X				X	X	1
Thyroid malignancy								
Differentiated, medullary, anaplastic, lymphoma		X				X	X	1
Genetic implications of thyroid malignancy		X				X	X	1
Principles of operation for thyroid swellings and thyrotoxicosis		X				X	X	1
Complications of thyroid surgery		X				X	X	1
Thyroid replacement therapy in benign disease		X				X	X	1
Follow up and non surgical management / treatment of thyroid malignancy		X				X	X	1
CLINICAL SKILLS								
History and examination	X						X	1,3
Investigations								
Thyroid function, autoantibodies		X				X	X	1
FNA, Ultrasound, Isotope scan		X				X	X	1
Indications for surgery								
Thyroxicosis, benign nodular disease, malignancy		X					X	1
Decisions for operative or non-operative management		X					X	1
Choice of operation		X					X	1
Postoperative management		X					X	1
Postop bleeding, airway problems, hypercalcaemia		X					X	1
Diagnosis and management of recurrent thyroid disease								
benign / malignant, MDT discussions		X					X	1
TECHNICAL SKILLS								
Thyroid lobectomy				X				1
Subtotal thyroidectomy				X				1
Total Thyroidectomy				X				1
Thyroidectomy - toxic goitre				X				1
Thyroidectomy - total + cervical node dissection - central and lateral compartments				X				1
Thyroid surgery - reoperation				X				1
Cervical approach to retrosternal goitre				X				1
Sternotomy for retrosternal goitre				X				1
Thymectomy - transcervical approach				X				1
PARATHYROID								
OBJECTIVE								
Assessment and treatment of disorders of parathyroid function								
Diagnosis /Assessment: Diagnosis and assessment of disorders of parathyroid function								
Operative Management: Understanding of the principles of surgery for disorders of parathyroid function including re-exploraton of the neck								
Post operative management: post operative management after parathyroid surgery								
KNOWLEDGE								
Anatomy / embryology / pathophysiology		X				X	X	1
Genetic implication of parathyroid disease		X				X	X	1
Hypercalcaemia								
Causes		X				X	X	1
Investigation		X				X	X	1
Medical management		X				X	X	1
Hypocalcaemia								
Causes		X				X	X	1

Investigation		X				X	X	1
Medical management		X				X	X	1
Causes of hyperparathyroidism								
Primary, renal, MEN, persistent or recurrent carcinoma		X				X	X	1
Diagnosis and assessment		X				X	X	1
Indications for and types of imaging		X				X	X	1
Indications for surgery in renal parathyroid disease		X				X	X	1
Surgical strategies for hyperparathyroidism		X				X	X	1
Intraoperative management								
Frozen section, PTH assay		X				X	X	1
Complications of parathyroid surgery		X				X	X	1
Options for and organisation of follow-up		X				X	X	1
CLINICAL SKILLS								
History and examination	X						X	1,3
Investigations - biochemical, radiological		X				X	X	1
Selection for surgery		X					X	1
Options								
4 gland exploration, single gland exploration		X					X	1
Subtotal resection, Transcervical thymectomy		X					X	1
Focussed approach to parathyroid surgery		X					X	1
Indications for mediastinal exploration		X					X	1
Postop complications								
Bleeding, airway problems, hypocalcaemia		X				X	X	1
TECHNICAL SKILLS								
Parathyroidectomy				X				1
Parathyroid surgery - reoperation				X				1
Thymectomy - transcervical				X				1
ADRENAL								
OBJECTIVE								
Assessment and management of enlarged adrenal gland including operation								
Diagnosis and assessment of adrenal swellings								
Operative management: principles of operative management of adrenal swellings								
Postoperative management: basic postoperative management of patients who have had adrenalectomy								
KNOWLEDGE								
Anatomy and physiology of adrenal		X				X	X	1
Genetic implications of adrenal disease		X				X	X	1
Causes of adrenal mass		X				X	X	1
Disorders of adrenal function								
Hyperadrenalism		X				X	X	1
Hypoadrenalism		X				X	X	1
Indications for surgery		X				X	X	1
Effect of hormone producing tumours in perioperative period		X				X	X	1
Open or laparoscopic surgery		X				X	X	1
Different approaches to adrenal - Anterior, posterior, laparoscopic		X				X	X	1
Complications of adrenalectomy		X				X	X	1
CLINICAL SKILLS								
History and examination	X						X	1,3
Investigations - Biochemical, radiological		X					X	1
Selection for surgery		X				X	X	1
Preoperative preparation for hormone secreting tumours								
Endocrinologist, Anaesthetist consultation		X			X		X	1,3
Postop management of acute adrenal insufficiency		X					X	1
Postoperative management of patients with hormone secreting tumours		X					X	1
Management of postop bleeding and infection		X					X	1
Appropriate follow-up		X					X	1
TECHNICAL SKILLS								
Adrenalectomy				X				1
PANCREATIC ENDOCRINE								
OBJECTIVE								
Diagnosis, assessment and management of pancreatic endocrine tumours (level of involvement in diagnosis and operation may vary between HPB and endocrine units)								
Diagnosis: Diagnosis and assessment of possible pancreatic endocrine tumours, often in consultation with other specialists								
Management: Management of pancreatic endocrine tumours, level of operative skill expected dependent on local arrangements								
Post-operative care: Management of both immediate and long-term care after surgery for pancreatic endocrine tumour								
KNOWLEDGE								
Presentation of neuroendocrine tumours								
Insulinoma, gastrinoma, MEN1, glucagonoma, VIPoma, nonfunctioning tumour		X				X	X	1
Investigation		X				X	X	1
Treatment options		X				X	X	1
Complications								
Bleeding, fistulae, diabetes		X				X	X	1
CLINICAL SKILLS								
History and examination	X						X	1,3
Investigations								
Biochemical, radiological, preop and intraop, ERCP, EUS		X				X	X	1
Treatment options (Laparoscopic or open) and preop preparation								
Pancreatic resection, enucleation, biliary bypass, hepatic resection, ablation of tumour		X				X	X	1
Metastatic disease management		X					X	1
Postop complications								
Indication for re-operation, Pancreatic leak / fistula, nutrition		X					X	1
TECHNICAL SKILLS								

Reoperation				X				1
Pancreas enucleation				X				1
Distal pancreatectomy				X				1
Pancreatico-duodenectomy				X				1
Biliary bypass				X				1
Left hepatectomy				X				1
Right hepatectomy				X				1
Ablation of hepatic tumour				X				1
MEN SYNDROMES								
OBJECTIVE								
Management of patients and families with proven or suspected MEN								
Multiple endocrine neoplasia syndromes including MEN1, MEN2 and familial medullary thyroid cancer: A knowledge of the genetics and various presentations of patients with MEN								
Diagnosis and management of MEN Disorders: Ability to diagnose and assess patients with MEN syndromes								
Operative Management: Operative management of MEN disorders								
Post operative management: Post op care, Follow Up								
KNOWLEDGE								
MEN syndromes								
MEN1, MEN2, Familial medullary thyroid cancer		X				X	X	1
Genetics and screening		X				X	X	1
Pathophysiology		X				X	X	1
Clinical presentation		X				X	X	1
Subclinical disease		X				X	X	1
Natural history		X				X	X	1
Diagnosis and management								
Medullary thyroid cancer, hyperparathyroidism		X				X	X	1
Phaeochromocytoma, pancreatic neuroendocrine disease		X				X	X	1
Indications and timing for surgery								
Recurrent MTC, parathyroid disease		X				X	X	1
Complications of organ related operation		X				X	X	1
Recurrent disease		X				X	X	1
CLINICAL SKILLS								
History and examination	X						X	1,3
Investigations								
Biochemistry, radiology, cytology/histology, genetic		X				X	X	1
Management of at risk patients / families								
Counselling, endocrinologist and genetics consultation		X					X	1
Choice of appropriate operation		X					X	1
Postoperative management								
Relevant to specific operation		X					X	1
MDT Liasion		X			X		X	1
TECHNICAL SKILLS								
Appropriate endocrine operation				X				1
Liasion with appropriate specialist eg pancreatic surgeon				X				1
Thyroid lobectomy				X				1
Total thyroidectomy				X				1
Thyroidectomy - retrosternal goitre				X				1
Total thyroidectomy + cervical node dissection				X				1
Thyroid surgery - reoperation				X				1
Transcervical thymectomy				X				1
Parathyroidectomy				X				1
Parathyroid surgery - reoperation				X				1
Adrenalectomy				X				1

TRANSPLANT								
	CEX	CBD	DOPS	PBA	MSF	FRCS Section 1	FRCS Section 2	GMP
ACCESS FOR DIALYSIS								
OBJECTIVE								
ST4: Gain an understanding of access for renal dialysis: principles of pre- and post-operative care, peritoneal access and vascular access								
ST6: Develop skills for providing access for renal dialysis								
ST8: Provide access for renal dialysis for most patients with renal failure.								
KNOWLEDGE								
Renal failure								
Classification, causes pathophysiology, treatment options		X				X	X	1
Renal dialysis								
Indications		X				X	X	1
Types of dialysis		X				X	X	1
Access sites		X				X	X	1
Timing of access		X				X	X	1
Complications		X				X	X	1
Vascular anatomy of upper and lower limbs		X				X	X	1
Preoperative and postoperative management		X				X	X	1
Cardiac function and venous conduits		X				X	X	1
CLINICAL SKILLS								
Preop preparation including investigations	X						X	1,3
Identify access site	X						X	1,3
Needling techniques								
Buttonhole		X					X	1
Rope-ladder		X					X	1
PTFE grafts - indications		X					X	1
Postop investigations		X					X	1
Fluid management		X					X	1
Drug therapy		X					X	1
Vascular complications diagnosis								
Steal, Venous hypertension, cardiac failure, aneurysm	X	X					X	1
Postop complications								
Thrombosis		X					X	1
Haemorrhage		X					X	1
Infection		X					X	1
CAPD peritonitis incl. sclerosing peritonitis		X					X	1
TECHNICAL SKILLS								
Insert central venous dialysis catheter (tunnelled)			X					1
Insert and remove peritoneal catheters				X				1
A-V fistula ligation				X				1
Construct a-v fistula								
radio-cephalic, brachio-cephalic, brachio-basilic, basilic vein transposition				X				1
Access secondary vascular				X				1
ORGAN RETRIEVAL								
OBJECTIVE								
The ability to retrieve abdominal organs for transplantation								
KNOWLEDGE								
Contraindications to organ donation								
General		X				X	X	1
Organ specific		X				X	X	1
Criteria for brain stem death and circulatory death		X				X	X	1
Pathophysiology of brain stem death and circulatory death		X				X	X	1
Principles of donor management		X				X	X	1
Principles of organ preservation		X				X	X	1
Surgical anatomy of multi-organ retrieval		X				X	X	1
CLINICAL SKILLS								
Assess and manage donors - living and deceased	X	X					X	1,3
Multiple abdominal organ retrieval from deceased donors		X					X	1
TECHNICAL SKILLS								
Kidney retrieval - donor: deceased				X				1
Kidney retrieval - donor: live				X				1
Liver retrieval - donor: deceased hepatectomy				X				1
Pancreatic transplant - donor pancreatectomy				X				1
KIDNEY TRANSPLANT								
OBJECTIVE								
ST4: Gain early exposure to kidney transplantation; understand and apply principles of pre- and post-operative care and observe deceased and living donor transplantation.								
ST6: Ability to assess patients for kidney transplantation and manage their care with assistance.								
ST8: Ability to assess patients for kidney transplantation and manage their care.								
KNOWLEDGE								
Causes of acute kidney injury (AKI) and chronic kidney disease (CKD)		X				X	X	1
Pathophysiology of AKI & CKD		X				X	X	1
Treatment options		X				X	X	1
Complications		X				X	X	1
Indications for kidney transplantation		X				X	X	1
Deceased and living kidney donation		X				X	X	1
Kidney anatomy and anomalies		X				X	X	1
Implantation site		X				X	X	1
Immunology								
HLA matching, cytotoxic cross match, rejection, immunosuppression		X				X	X	1
Cytotoxic cross match		X				X	X	1
Rejection		X				X	X	1
Immunosuppression		X				X	X	1

Principles of pre and postop management		X				X	X	1
CLINICAL SKILLS								
Select appropriate patient from waiting list	X	X					X	1,3
Postop care - Fluid balance, drug therapy, renal biopsy		X					X	1
Postop complications								
Vascular, ureteric complications		X					X	1
Rejection		X					X	1
Infection		X					X	1
Drug side effects		X					X	1
TECHNICAL SKILLS								
Transplant - donor operation - deceased				X				1
Transplant - donor operation - live donor				X				1
Kidney transplant - complete operation - deceased donor				X				1
Kidney transplant - complete operation - live donor				X				1
Kidney transplant - complete operation - regraft				X				1
PAEDIATRIC KIDNEY TRANSPLANTATION								
OBJECTIVE								
Ability to assess patients for kidney transplantation and manage their care								
KNOWLEDGE								
Acute and chronic renal failure								
Causes, pathophysiology, treatment options, Complications		X				X	X	1
Indications and contraindications								
Kidney transplantation		X				X	X	1
Deceased and living kidney donation		X				X	X	1
Kidney anatomy and anomalies		X				X	X	1
Implantation site		X				X	X	1
Immunology								
HLA matching, cytotoxic cross match, rejection, immunosuppression		X				X	X	1
Preop and postop management		X				X	X	1
CLINICAL SKILLS								
Select appropriate patient	X	X					X	1,3
Postop care with paediatric nephrologist		X			X		X	1,3
Fluid management, drug therapy, renal biopsy		X					X	1
Postop complications								
Vascular, ureteric		X					X	1
Rejection, infection drug side effects		X					X	1
TECHNICAL SKILLS								
Paediatric - deceased donor kidney transplant				X				1
Paediatric live donor nephrectomy				X				1
Paediatric live donor transplant				X				1
PANCREATIC TRANSPLANTATION								
OBJECTIVE								
Assessment of patients for pancreatic transplantation in consultation with physicians; operative management and post operative care. Full competency is not expected by CCT.								
KNOWLEDGE								
Diabetes								
Causes		X				X	X	1
Pathophysiology		X				X	X	1
Treatment options		X				X	X	1
Complications		X				X	X	1
Indications and contraindications for transplant in diabetes								
Kidney transplant alone		X				X	X	1
Simultaneous kidney + pancreas transplant		X				X	X	1
Pancreas transplant alone		X				X	X	1
Pancreas transplant after kidney transplant		X				X	X	1
Indications and contraindications for pancreatic donation		X				X	X	1
Anatomy of pancreas		X				X	X	1
Implantation site		X				X	X	1
Immunology								
HLA match, cytotoxic cross match, rejection, immunosuppression		X				X	X	1
Preop preparation and postop management		X				X	X	1
CLINICAL SKILLS								
Select appropriate patient	X	X					X	1,3
Postop care								
Fluid management, drug therapy, pancreatic biopsy		X					X	1
Postop complications								
Vascular, duct leaks, pancreatitis		X					X	1
Rejection, infection, drug side effects		X					X	1
TECHNICAL SKILLS								
Pancreatic transplant - donor pancreatectomy				X				1
Pancreatic transplant implant graft				X				1
Convert bladder drainage to enteric drainage				X				1
LIVER TRANSPLANTATION								
OBJECTIVE								
ST6: Assess and manage patients undergoing liver transplantation with assistance								
ST8: Assess and manage patients undergoing liver transplantation								
KNOWLEDGE								
Acute and chronic liver failure								
Causes		X				X	X	1
Pathophysiology		X				X	X	1
Complications		X				X	X	1
Treatment options		X				X	X	1
Indications and contraindications								

Liver transplant		X				X	X	1
Deceased and live liver donation		X				X	X	1
Liver anatomy								
Anatomical variants		X				X	X	1
Sugical anatomy for splitting, reduction, live donation		X				X	X	1
Immunology								
Rejection		X				X	X	1
Immunosuppression		X				X	X	1
Preop preparation and postop management		X				X	X	1
Perioperative management		X				X	X	1
Complications of liver transplantation		X				X	X	1
CLINICAL KNOWLEDGE								
Select appropriate patients	X	X					X	1,3
Postop care								
Fluid management, drug therapy, liver biopsy		X					X	1
Diagnose and treat complications								
Vascular, biliary		X					X	1
Rejection		X					X	1
Infection		X					X	1
Recurrent disease		X					X	1
Drug side effects		X					X	1
Liver biopsy		X	X					1
TECHNICAL SKILLS								
Liver transplant - donor - deceased hepatectomy				X				1
Liver transplant - recipient operation				X				1

GSoC								
	CEX	CBD	DOPS	PBA	MSF	FRCS Section 1	FRCS Section 2	GMP
ABDOMINAL PAIN IN CHILDHOOD								
OBJECTIVES								
The ability to assess and manage a child with abdominal pain including appendicectomy.								
KNOWLEDGE								
Pattern of symptoms and relation to likely pathology and age of child		X				X	X	1
Differential diagnosis		X				X	X	1
Place and value of investigations		X				X	X	1
Place of operative intervention, and associated outcomes		X				X	X	1
CLINICAL SKILLS								
Ability to assess ill child	X						X	1,3
Ability to form a viable investigation and treatment plan	X	X					X	1
TECHNICAL SKILLS								
Appendicectomy				X				1
Laparotomy/laparoscopy				X				1
INTUSSUSCEPTION								
Objective								
The ability to assess and manage a child with intussusception including management with								
an expert radiologist and operation.								
Knowledge								
Pattern of symptoms and relation to likely pathology and age of child		X				X	X	1
Role of radiology both for diagnosis and interventional management		X				X	X	1
Differential diagnosis		X				X	X	1
Clinical Skills								
Ability to assess child and recognise severity of illness	X						X	1,3
Ability to take appropriate resuscitative measures and form a viable investigation and treatment plan	X	X					X	1
Treatment Plan								
Ability to communicate with all relevant groups, including referral for specialist treatment		X					X	1,3
Reduction of intussusception			X					1
CHILD WITH VOMITING								
Objective								
The ability to assess a child with vomiting.								
Knowledge								
Patterns of symptoms and relation to likely pathology		X				X	X	1
Significance of bile stained vomiting		X				X	X	1
Place and value of investigations		X				X	X	1
Differential diagnosis		X				X	X	1
Methods of medical management		X				X	X	1
Place of operative intervention, and associated outcomes		X				X	X	1
Clinical Skills								
Ability to assess ill child including an assessment of severity of dehydration	X						X	1,3
Ability to form a viable investigation and treatment plan		X					X	1
Technical Skills								
Pyloromyotomy				X				1
CONSTIPATION								
Objective								
The ability to assess and manage a child with constipation								
Knowledge								
Pattern of symptoms and relation to likely pathology and age of child		X				X	X	1
Place and value of investigations		X				X	X	1
Differential diagnosis to include medical anomalies and sociopsychological aspects of symptom		X				X	X	1
Clinical Skills								
Ability to assess child	X						X	1,3
Ability to form a viable investigation and treatment plan		X					X	1
To include community aspects of further management		X					X	1,3
Technical Skills								
Manual evacuation			X					
ABDOMINAL WALL CONDITIONS								
OBJECTIVE								
The abillity to assess and manage a child with abdominal wall hernia								
The ability to assess and manage a child with epigastric hernia								
The ability to assess and manage a child with supra-umbilical hernia								
The ability to assess and manage a child with umbilical hernia								
KNOWLEDGE								
Epigastric hernia:								
Developmental anatomy		X				X	X	1
Natural history		X				X	X	1
Indications for and outcomes of surgery		X				X	X	1
Supra-umbilical hernia:								
Developmental anatomy		X				X	X	1
Natural history to include contrast with umbilical hernia		X				X	X	1
Indications for and outcomes of surgery		X				X	X	1
Umbilical hernia:								
Developmental anatomy		X				X	X	1
Natural history		X				X	X	1
Indications for and outcomes of surgery		X				X	X	1
Place of conservative management		X				X	X	1
CLINICAL SKILLS								
Epigastric hernia:								
Ability to assess child and reach appropriate diagnosis	X						X	1,3

Ability to form a treatment plan		X					X	1
Supra-umbilical hernia:								
Ability to assess child and reach appropriate diagnosis	X						X	1,3
Ability to form a treatment plan		X					X	1
Umbilical hernia:								
Ability to assess child and reach appropriate diagnosis	X						X	1,3
Ability to form a treatment plan		X					X	1
TECHNICAL SKILLS								
Epigastric hernia:								
Abdominal wall hernia operation				X				1
Supra-umbilical hernia:								
Abdominal wall hernia operation				X				1
Umbilical hernia:								
Abdominal wall hernia operation				X				1
CHILD WITH GROIN CONDITION								
Objective								
The ability to assess and manage a child with a common groin condition								
The ability to assess and manage a child with undescended testis including orchidopexy								
in straightforward cases								
The ability to assess and manage a child with penile inflammation								
The ability to assess and manage a child with inguinal hernia								
The ability to assess and manage a child with hydrocele								
The ability to assess and manage a child with an acute scrotal condition								
Knowledge								
Undescended testis								
Developmental anatomy		X				X	X	1
Natural history of undescended testis and retractile testis		X				X	X	1
Place of conservative management		X				X	X	1
Indications for and outcomes of surgery		X				X	X	1
Penile inflammatory conditions								
Developmental anatomy		X				X	X	1
Natural history		X				X	X	1
Place of conservative management		X				X	X	1
Indications for and outcomes of surgery		X				X	X	1
Inguinal Hernia								
Developmental anatomy		X				X	X	1
Natural history		X				X	X	1
Indications for and outcomes of surgery		X				X	X	1
Hydrocele								
Developmental anatomy		X				X	X	1
Natural History		X				X	X	1
Place of conservative management		X				X	X	1
Indications for and outcomes of surgery		X				X	X	1
Acute scrotum								
Natural history		X				X	X	1
Place of conservative management		X				X	X	1
Indications for and outcomes of surgery		X				X	X	1
CLINICAL SKILLS								
Undescended testis								
Ability to assess child and reach appropriate diagnosis	X						X	1,3
Ability to form a treatment plan		X					X	1
Ability to differentiate true undescended testis from retractile variant	X						X	1,3
Penile inflammatory conditions								
Ability to assess child and reach appropriate diagnosis	X						X	1,3
Ability to form a treatment plan		X					X	
Inguinal Hernia								
Ability to assess child and reach appropriate diagnosis	X						X	1,3
Ability to form a treatment plan		X					X	
Hydrocele								
Ability to assess child and reach appropriate diagnosis	X						X	1,3
Ability to form a treatment plan		X					X	
Acute scrotum								
Ability to access child and reach appropriate diagnosis	X						X	1,3
Ability to form a treatment plan		X					X	1
TECHNICAL SKILLS								
Undescended testis								
Orchidopexy				X				1
Penile inflammatory conditions								
Circumcision				X				1
Inguinal hernia								
Inguinal hernia (not neonatal) operation				X				1
Hydrocele								
Hydrocele operation				X				1
Acute scrotum								
Inguinal hernia (not neonatal) operation				X				1
Hydrocele operation				X				1
Operation for testicular torsion				X				1
UROLOGICAL CONDITIONS								
Objective								
The ability to assess and manage a child with a common urological condition								
The ability to assess a child with haematuria								
The ability to assess a child with urinary tract infection								
The ability to assess whether circumcision is indicated and carry it out.								

Knowledge								
Haematuria								
Pattern of symptoms and relation to likely pathology and age of child		X				X	X	1
Place and value of investigations		X				X	X	1
Differential diagnosis		X				X	X	1
Urinary Tract Infection								
Pattern of symptoms and relation to likely pathology and age of child		X				X	X	1
Place and value of investigations		X				X	X	1
Differential diagnosis		X				X	X	1
Circumcision								
Developmental anatomy of the foreskin		X				X	X	1
Natural history of the foreskin		X				X	X	1
Clinical Skills								
Haematuria: Ability to assess child	X							1,3
Ability to form a viable investigation and treatment plan		X						1
Ability to communicate with all relevant groups	X	X						1,3
Urinary Tract Infection: Ability to assess child	X							1,3
Ability to form a viable investigation and treatment plan		X						1
Ability to communicate with all relevant groups	X	X						1,3
Circumcision								
Ability to assess indications for circumcision	X	X						1,3
Technical Skills								
Haematuria: Suprapubic catheter insertion			X					1
Circumcision: Circumcision			X					1
HEAD AND NECK SWELLINGS								
Objective								
The ability to assess and manage a child with a head and neck swelling								
Knowledge								
Pattern of symptoms and relation to likely pathology and age of child		X				X	X	1
Place and value of investigations		X				X	X	1
Differential diagnosis		X				X	X	1
Relevance of embryonic development of head and neck structures		X				X	X	1
Clinical Skills								
Ability to assess child	X							1,3
Ability to form a viable investigation and treatment plan		X						1
Technical Skills								
Lymph node biopsy			X					1
TRAUMA (see also Emergency General Surgery)								
Objective								
The ability to assess and manage a child with trauma.								
Knowledge								
Algorithms for assessment of trauma victims - primary survey		X				X	X	1
Algorithms for assessment of trauma victims - secondary survey		X				X	X	1
Likely effects of different types of trauma and relation to age of child		X				X	X	1
Investigation protocols and local variations thereof		X				X	X	1
Awareness of NAI and local procedures for dealing with this catagory of trauma		X				X	X	1
Clinical Skills								
Ability to appropriately assess trauma cases and carry out resuscitative measures	X					X	X	1,3
Ability to prioritise interventions		X					X	1
Ability to act as part of a team or lead team as appropriate	X	X					X	1
PALS course								1,2,3
Technical Skills								
Chest drain insertion			X					1
Central venous line insertion			X					1
Suprapubic catheter insertion			X					1
MISCELLANEOUS								
Objective								
The ability to assess and manage a child with superficial abscess or with ingrowing toenail.								
Knowledge								
Superficial Abscess								
Causes of superficial abscess in children		X				X	X	1
Anatomy of underlyin structures		X				X	X	1
Predisposing conditions		X				X	X	1
Ingrowing Toenail								
Causes of ingrowing toenail		X				X	X	1
Anatomy of nail and nail bed		X				X	X	1
Treatment options available		X				X	X	1
Clinical Skills								
Superficial Abscess								
History and examination	X						X	1,3
Recognition of the need for other investigation		X					X	1
Recognition of need for drainage or antibiotics		X					X	1
Ingrowing Toenail								
History and examination	X						X	1,3
Recognition of need for operative treatment		X					X	1
Technical Skills								
Superficial Abscess								
Abscess drainage			X					1
Ingrowing Toenail								
Ingrowing toenail operation			X					1

R&R								
	CEX	CBD	DOPS	PBA	MSF	FRCS Section 1	FRCS Section 2	GMP
OPTHALMOLOGY								
OBJECTIVE								
Ability to deal with common minor eye emergencies and refer serious problems appropriately								
KNOWLEDGE								
Anatomy of the eye		X						1
Causes and presentation of foreign bodies in the eye		X						1
Cause and presentation of dendritic ilcer		X						1
Causes of flash burns to the eye		X						1
Common eye infection, their presentation and complications		X						1
Other causes of red eye, including glaucoma		X						1
CLINICAL SKILLS								
Examination of the eye	X							1,3
Removal of foreign bodies from cornea			X					1
Diagnosis and management of dendritic ulcer	X	X						1,3
Diagnosis and management of flash burns	X	X						1,3
Diagnosis and management of common eye infections	X	X						1,3
Slit lamp examination	X		X					1,3
OTOLARYNGOLOGY								
OBJECTIVE								
Ability to deal with common minor ENT emergencies and refer serious problems appropriately								
KNOWLEDGE								
Anatomy of the nose, external auditory canal and pharynx		X						1
Presentation and complications of foreign bodies in nose, auditory canal and pharynx		X						1
CLINICAL SKILLS								
Examination of the ear, nose and throat	X							1,3
Removal of foreign bodies from external auditory canal and nose			X					1
Removal of fish bones etc. from the pharynx			X					1
Packing of noses - anterior and posterior			X					1
Treatment of epistaxis		X	X					1
DENTAL								
OBJECTIVE								
Ability to deal with common minor dental emergencies and refer serious problems appropriately								
CLINICAL SKILLS								
Sewing bleeding sockets after extractions			X					1
Broken teeth - using temporary 'putty' and management of the tooth knocked out intact using milk			X					1
Management of dental abscesses		X	X					1
PLASTIC SURGERY								
OBJECTIVE								
Ability to deal with common minor plastic surgical emergencies and refer serious problems appropriately. See general surgery initial stage for skin lesions; orthopaedic surgery for tendon repairs and plastic surgery for more detail on burns.								
KNOWLEDGE								
Pathophysiology of burn injury		X						1
Complications of burn injury		X						1
CLINICAL SKILLS								
Assessment and resuscitation of burn victims	X	X						1,3
Identification of burn victims with potential airway problems and emergency management in conjunction with anaesthetists	X	X						1,3
Appropriate referral and transfer to regional burns centre		X						1
Management of minor burns conservatively or by split skn graft		X	X					1
TECHNICAL SKILLS								
Skin graft			X					1
NEUROSURGERY								
OBJECTIVE								
Ability to deal with minor head injuries and to refer serious serious head injuries appropriately. In extreme circumstances, emergency surgical treatment of serious head injuries may be necessary.								
See orthopaedic surgery for spinal injuries.								
KNOWLEDGE								
Anatomy of skull, brain and meninges		X						1
Pathophysiology of head injury		X						1
Appropriate emergency investigation of head injuries		X						1
Indications for surgical intervention in extreme circumstances after discussion with regional neurosurgical centre		X						1
CLINICAL SKILLS								
Assessment and resuscitation of head injuries	X							1,3
TECHNICAL SKILLS								
Burr hole(s)/craniotomy				X				1

VASCULAR										
			CEX	CBD	DOPS	PBA	MSF	FRCS Section 1	FRCS Section 2	GMP
SUPERFICIAL VENOUS DISEASE										
OBJECTIVES										
Assessment and management of varicose veins, including recurrent veins and complications										
KNOWLEDGE										
Anatomy				X				X	X	1
Physiology	Venous dynamics			X				X	X	1
Pathology	Superficial venous incompetence			X				X	X	1
Complications	Venous hypertension			X				X	X	1
	Oedema, lipodermatosclerosis, ulceration			X				X	X	1
Recurrent varicose veins	Failure of primary intervention			X				X	X	1
	Neovascularisation			X				X	X	1
	Recanalisation			X				X	X	1
	Pelvic venous reflux			X				X	X	1
CLINICAL SKILLS										
History	Presenting symptoms and complications		X							1,3
Examination	Varicosities and venous incompetence		X							1
	Identify complications		X							1
Investigation	Use of venous duplex	Interpret results of duplex / venograp	X					X	X	1
	Venography			X					X	1
	Plethysmography			X					X	1
Management options	Indications	Conservative - graduated support		X					X	1
		Injection sclerotherapy+foam		X					X	1
		Endovascular ablation		X					X	1
		Surgery		X					X	1
	Complications			X					X	1
TECHNICAL SKILLS										
Prescribe support stockings				X						1
Injection scleotherapy					X					1
Endovascular ablation						X				1
Surgery	Multiple phlebectomies					X				1
	Sapheno-femoral junction ligation					X				1
	Sapheno-popliteal vein ligation					X				1
	Long saphenous vein strip					X				1
	Enodovenous ablation of long saphenous vein					X				
	Endovenous ablation of short saphenous vein					X				
DEEP VENOUS DISEASE										
OBJECTIVE										
Assessment and management of patient with deep venous insufficiency (incl DVT)										
Deep Vein Thrombosis										
KNOWLEDGE										
Anatomy of deep veins lower limb / pelvis				X				X	X	1
Pathophysiology of DVT				X				X	X	1
Management of uncomplicated DVT				X				X	X	1
Early / late complications of DVT				X				X	X	1
Prophylaxis				X				X	X	1
Indications for intervention	Caval filter			X				X	X	1
	Protected thrombolysis			X				X	X	1
	Surgical Thrombectomy			X				X	X	1
CLINICAL SKILLS										
History and examination			X							1
Investigations	Duplex			X						1
	Venography (MR or standard)			X						1
TECHNICAL SKILLS										
Endovenous therapy(thrombolysis)						X				1
Venous thrombectomy						X				1
Chronic deep venous insufficiency										
OBJECTIVE										
Assessment and management of patient with chronic deep venous insufficiency										
KNOWLEDGE										
Pathology of deep venous incompe	DVT			X				X	X	1
	Valvular dysfunction			X				X	X	1
	Valvular agenesis			X				X	X	1
Management options	Compression			X				X	X	1
	Valvuloplasty			X				X	X	1
	Valve transplant			X				X	X	1
	Bypass			X				X	X	1
	Amputation			X				X	X	1
CLINICAL SKILLS										
History			X							1,3
Examination	Diagnose complications		X							1
Investigation	Duplex			X						1
	Venography			X						1
ACUTE ISCHAEMIA										
OBJECTIVE										
Ability to recognise acute limb ischaemia and institute emergency management										
KNOWLEDGE										
Anatomy of arterial system				X				X	X	1
Pathophysiology of acute limb isch	Embolism			X				X	X	1

	Thrombosis			X				X	X	1
	Trauma			X				X	X	1
	Iatrogenic interventions			X				X	X	1
Investigations	Doppler			X				X	X	1
	Angiography			X				X	X	1
	CT			X				X	X	1
	Intra-operative angiography			X				X	X	1
Management	Conservative			X				X	X	1
	Embolectomy			X				X	X	1
	Thrombolysis			X				X	X	1
	Primary amputation			X				X	X	1
Pathophysiology of compartment syndrome				X				X	X	1
CLINICAL SKILLS										
History			X						X	1,3
Examination			X						X	1
Investigations	ABPI, Duplex, angiogram, ECHO			X					X	1
TECHNICAL SKILLS										
Surgical approaches to the arterial tree						X				1
Surgical control of upper and lower limb blood vessels						X				1
Embolectomy						X				1
On table angiography and thrombolysis						X				1
Emergency arterial reconstruction						X				1
Fasciotomy						X				1
Emergency venous control and reconstruction						X				1
CHRONIC ISCHAEMIA										
OBJECTIVE										
Management of the chronically ischaemic lower limb, including operation for most cases										
KNOWLEDGE										
Anatomy	Anatomy and embryological development of arteries supplying the lower			X				X	X	1
Pathology	Detailed pathology of atherosclerosis/thrombosis and complications.			X				X	X	1
	cystic adventitial disease, popliteal entrapement, fibromuscular dysplasia			X				X	X	1
Co-existing disorders	Diabetes, Buerger's disease, autoimmune vasculitis			X				X	X	1
Congenital disorders	Persistent sciatic artery,			X				X	X	1
	Recognition of cardiovascular risk and management			X				X	X	1
	Understanding of diabetes and impact on arterial disease			X				X	X	1
	Epidemiology of tobacco smoking			X				X	X	1
Management	Detailed knowledge of evidence for role of medical treatment.			X				X	X	1
	Detailed understanding of risk factors for PAD and how to modify them			X				X	X	1
	Role of exercise			X				X	X	1
CLINICAL SKILLS										
History and examination	Ability to take a relevant history and examine vascular system.		X							1,3
Investigation	Role of doppler, duplex ultrasound, CT, MRA and conventional angiograph			X				X	X	1
	Use of ankle/pressure measurements.			X					X	1
	Percutaneous angiography/MRA/ CTA			X					X	1
Management	Selection for intervention - surgery / angioplasty / amputation			X					X	1
Complications	Management of postoperative wounds, seromas			X				X	X	1
	Graft complications			X				X	X	1
	Graft surveillance			X					X	1
Rehabilitation	Post amputation			X					X	1
TECHNICAL SKILLS		Exposure of aorta, iliac, femoral, popliteal and tibial vessels				X				1
		Exposure of axiliary artery.				X				1
		Vascular anastomosis (end-to-end, end-to-side)				X				1
		Aorto-iliac & aorto-femoral bypass				X				1
		Ilio-femoral bypass				X				1
		Axillo-femoral bypass				X				1
		Fem endarterectomy / patch				X				1
		Ilio-femoro and femoro-femoral cross-over				X				1
		Above-knee femoro-popliteal bypass				X				1
		Below-knee femoro-popliteal bypass				X				1
		Distal bypass (AT, PT & peroneal)				X				1
		Pedal bypass				X				1
		Vein preparation in-situ/reversed/arm vein/SSV				X				1
		Vein cuff / patch				X				1
		Intra-operative assessment doppler & angiography				X				1
Amputation		Level Selection				X				1
		Digital amputation				X				1
		Transmetatarsal amputation				X				1
		Transtibial amputation (Posterior flap, skew flap)				X				1
		Knee disarticulation				X				1
		Transfemoral amputation				X				1
UPPER LIMB ISCHAEMIA										
OBJECTIVE										
Ability to recognise and manage; (i) acute upper limb ischaemia, (ii) chr										
KNOWLEDGE										
Anatomy	Upper limb vasculature			X				X	X	1
	Thoracic outlet			X				X	X	1
Aetiology	Acute			X				X	X	1
	Chronic			X				X	X	1
Pathology				X				X	X	1
Presentation	Acute			X				X	X	1
	Chronic			X				X	X	1
	Thoracic outlet syndrome			X				X	X	1
Management	Conservative			X				X	X	1
	Surgical			X				X	X	1
CLINICAL SKILLS										

History and examination	Acute		X						X	1,3
	Chronic		X						X	1,3
	Thoracic outlet syndrome		X						X	1,3
Investigations	Duplex			X					X	1
	CT angiogram			X					X	1
	MR angiogram			X					X	1
	DSA (Rarely used)			X					X	1
Complications	Venous thrombosis			X					X	1
TECHNICAL SKILLS										1
Surgery	Brachial embolectomy					X				1
	Surgical bypass					X				1
	Thoracic outlet decompression					X				1
ANEURYSMAL DISEASE										
OBJECTIVE										
Assessment and management of straightforward aortic aneurysms										
Assessment and management of ruptured aortic aneurysm										
ELECTIVE										
KNOWLEDGE										
Anatomy of aorta and main branches				X				X	X	1
Pathology of aneurysm formation				X				X	X	1
Risk factors for aneurysm formation				X				X	X	1
Risk factors for intervention				X				X	X	1
Investigation - CT				X				X	X	1
Screening programmes				X				X	X	1
Treatment	Open surgery			X				X	X	1
	Endovascular			X				X	X	1
Treatment complications				X				X	X	1
Other aneurysms	Popliteal			X				X	X	1
	False aneurysms			X				X	X	1
	carotid			X				X	X	1
	visceral			X				X	X	1
	Thoracoabdominal aneurysms			X				X	X	1
	Aortic dissection			X				X	X	1
CLINICAL SKILLS										
History and examination			X						X	1,3
Assessment of comorbidity	Cardiorespiratory / renal			X					X	1
Treatment selection	Conservative			X				X	X	1
	Open surgery			X					X	1
	Endovascular stent			X					X	1
Complications	Ability to recognise and manage complications: bleeding, thrombosis, embolism,			X				X	X	1
	Aneurysm - Aortic endoleak			X				X	X	1
	Aortocaval fistula repair			X					X	1
	Aorto-intestinal fistula repair colonic ischaemia			X					X	1
	Reoperation infected graft			X					X	1
TECHNICAL SKILLS										
Open surgery	AAA - tube graft - non-ruptured - part operation – Control / dissection					X				1
	AAA - tube graft - non-ruptured - part operation - Proximal anastomosis					X				1
	AAA - tube graft - non-ruptured - part operation - Distal anastomosis					X				1
	AAA - tube graft - non-ruptured - complete operation					X				1
	AAA - bifurcated graft - non-ruptured - part operation - Control / dissection					X				1
	AAA - bifurcated graft - non-ruptured - part operation - Proximal anastomosis					X				1
	AAA - bifurcated graft - non-ruptured - part operation - Distal anastomosis					X				1
	AAA - bifurcated graft - non-ruptured - complete operation					X				1
	Aneurysm - Endovascular stent graft					X				1
	Aneurysm - Supra-renal aortic aneurysm – repair					X				1
EMERGENCY										
KNOWLEDGE										
Risk factors for aneurysm rupture				X				X	X	1
Appropriate/timely investigation of an emergency aneurysm				X				X	X	1
Open and endovascular treatment	Endovascular planning			X				X	X	1
Surgical methods of immediate aortic control; Supra celiac and infrarenal approaches				X				X	X	1
Intra-abdominal compartment syndromes and intra-operative management				X				X	X	1
Complications of open emergency aortic surgery				X				X	X	1
Complications of emergency endovascular stent graft				X				X	X	1
CLINICAL SKILLS										
History and examination			X						X	1,3
Assessment of comorbidity				X					X	1
Complications	Recognise and manage complications: bleeding, thrombosis, embolism, organ fai			X					X	1
TECHNICAL SKILLS										1
Selection of patients for conservative management, open operation or endovascular stent				X		X				1
Open Surgery	AAA - tube graft - ruptured - part operation – Control / dissection					X				1
	AAA - tube graft - ruptured - part operation - Proximal anastomosis					X				1
	AAA - tube graft - ruptured - part operation - Distal anastomosis					X				1
	AAA - tube graft - ruptured - complete operation					X				1
	AAA - bifurcated graft - ruptured - part operation - Control / dissection(					X				1
	AAA - bifurcated graft - ruptured - part operation - Proximal anastomosis					X				1
	AAA - bifurcated graft - ruptured - part operation - Distal anastomosis					X				1
	AAA - bifurcated graft - ruptured - complete operation					X				1
	Aneurysm - Supra-renal aortic aneurysm – repair					X				1
	Femoral thrombectomy and or additional lower limb revascularisation.					X				1
Endovascular	Aneurysm - Endovascular stent graft					X				1
PERIPHERAL ARTERY ANEURYSM										
Objective										
To know of and treat aneurysms of peripheral and visceral arteries										
Knowledge										
	Common types of aneurysms			X				X	X	1
	popliteal, renal, mesenteric, carotid			X				X	X	1

Clinical Skills	Investigation			X				X	X	1
	Radiological treatment			X		X		X	X	1
	Surgical treatment			X		X		X	X	1
VASCULAR ACCESS (VA)										
OBJECTIVE										
To describe need for VA										
common methods of VA										
establish VA										
manage complications of VA										
Knowledge	anatomy of upper and lower limb arteries and veins			X				X	X	1
	List indications for VA			X				X	X	1
	Knowledge of methods of renal support; advantages and disadvantages			X				X	X	1
	Physiology of arterio-venous fistulae			X				X	X	1
	Knowledge of conduit material			X				X	X	1
	List complications of VA			X				X	X	1
	Knowledge of preoperative investigations including ultrasound			X				X	X	1
Clinical Skills	Pre-operative assessment and choice of VA		X						X	1,3
	Arrange appropriate investigations			X					X	1
	Create brachiocephalic fistula					X				1
	Create basilic vein transposition AV fistula					X				1
	Create forearm loop graft					X				1
	create thigh loop graft					X				1
	Undertake revision procedures					X				1
	Arrange surveillance			X						1
RENAL VASCULAR DISEASE										
OBJECTIVE										
To be competent to manage a patient with renal artery disease										
KNOWLEDGE										
Anatomy of renal arteries				X				X	X	1
Physiology of renal control of blood pressure				X				X	X	1
Pathophysiology of renovascular disease				X				X	X	1
Clinical features of renovascular disease				X				X	X	1
Investigations	Duplex			X				X	X	1
	CT / CT angiography			X				X	X	1
	MRI / MR Angiography			X				X	X	1
	Selective venous sampling			X				X	X	1
Selection for treatment				X				X	X	1
Treatment options	Radiological interventions			X				X	X	1
	Stenting			X				X	X	1
	Surgery			X				X	X	1
CLINICAL SKILLS										
History and examination	Features of renal failure		X						X	1,3
	Suspected renal artery disease		X						X	1
Investigations				X					X	1
TECHNICAL SKILLS										
Radiological interventions						X		X		1
Surgery for renal artery disease						X		X		1
CAROTID ARTERY DISEASE										
OBJECTIVE										
Assessment and management of patients with cerebrovascular disease										
Surgical management of a patient with a TIA/Stroke										
KNOWLEDGE										
Anatomy and pathophysiology of stroke				X				X	X	1
Classification of stroke				X				X	X	1
Stroke severity score				X				X	X	1
Definition of TIA and differential diagnosis				X				X	X	1
Aetiology and epidemiology of stro	Genetic causes			X				X	X	1
	Risk factors for cerebral infarction			X				X	X	1
Guidelines for hypertension and hy	BHS, NICE, RCP, SIGN			X				X	X	1
Indications and use of investigation	CT, MRI/A, Carotid doppler, transcranial doppler, IA DSA, Echocardiography			X				X	X	1
Indications for conservative or surgical management				X				X	X	1
Acute intervention including thrombolysis and surgery				X				X	X	1
Complications and multidisciplinary management				X				X	X	1
Stroke prevention	Cost effectiveness			X				X	X	1
	Antiplatelet agents			X				X	X	1
	Treatment of atrial fibrillation			X				X	X	1
Selection for carotid endarterectomy and stenting				X				X	X	1
Techniques of carotid surgery	Local versus general anaesthesia			X				X	X	1
	Standard versus retrojugular approach			X				X	X	1
	Standard versus eversion endarterectomy			X				X	X	1
	Carotid shunts			X				X	X	1
	Distal intimal tacking sutures			X				X	X	1
	Primary versus patch closure			X				X	X	1
Use and interpretation of intra-ope	Stump pressure measurement			X				X	X	1
	TCD			X				X	X	1
Carotid body tumours	pathology			X				X	X	1
	investigation			X				X	X	1
	surgical treatment			X				X	X	1
Carotid Dissection	pathology			X				X	X	1
	management			X				X	X	1
Carotid Trauma	types			X				X	X	1
	investigation			X				X	X	1
	radiological treatment			X				X	X	1

	Surgical treatment			X				X	X	1
CLINICAL SKILLS										
History and examination			X						X	1,3
Appropriate investigations	Carotid duplex, MRA, CT scan and angiogram, carotid arteriography			X				X	X	1
Selection of patients	Surgery or interventional radiology			X				X	X	1
Cardiac assessment	Synchronous cardiac and carotid surgery			X				X	X	1
Postop complications	Stroke, bleeding, airway obstruction, acute occlusion, cranial nerve injury			X				X	X	1
Medical management	Antiplatelet agents, hypertension, hyperlipidaemia			X				X	X	1
Communication of risks and benefits of intervention				X					X	1,3
Communication of risk and impact	Driving and occupation			X					X	1,3
Follow-up				X					X	1
TECHNICAL SKILLS										
Carotid endarterectomy - complete - GA						X				1
Carotid endarterectomy - complete - LA						X				1
Carotid **Endarterectomy** - part - dissection						X				1
Carotid endarterectomy - part - endarterectomy						X				1
Carotid endarterectomy - part - patch closure						X				1
Re-do carotid endarterectomy						X				1
Endovascular stent						X				1
MESENTERIC VASCULAR DISEASE										
OBJECTIVE										
Assessment and management of patients with acute and chronic mesenteric ischaemia										
KNOWLEDGE										
Anatomy of mesenteric arterial and venous system				X				X	X	1
Physiology of mesenteric vasculature				X				X	X	1
Pathophysiology of mesenteric ischaemia				X				X	X	1
Presentation of mesenteric vascula	Acute and chronic			X				X	X	1
Investigation	Mesenteric angiography			X				X	X	1
	CT / CT angiography			X				X	X	1
Treatment	Radiological			X				X	X	1
	Surgical			X				X	X	1
Complications				X				X	X	1
CLINICAL SKILLS										
History and examination	Acute presentation		X						X	1,3
	Chronic presentation		X						X	1,3
Resuscitation				X					X	1
Investigations				X				X	X	1
Management				X				X	X	1
TECHNICAL SKILLS										
Radiological intervention						X				1
Surgery						X				1
Angioplasty						X				1
VASCULAR TRAUMA										
OBJECTIVE										
Identification, assessment and management of injuries to blood vessels										
KNOWLEDGE										
Surgical anatomy	Relationship to fractures, nerves, associated structures			X				X	X	1
Mechanisms of vascular injury	Traumatic			X				X	X	1
	Iatrogenic			X				X	X	1
Pathophysiology of trauma and mu				X				X	X	1
Pathophysiology of A-V fistula				X				X	X	1
Investigations	Invasive			X				X	X	1
	Non-invasive			X				X	X	1
Operative approach to specific inju	Vascular			X				X	X	1
	Combined arterial and venous			X				X	X	1
	Orthopaedic / neurological			X				X	X	1
Technical options for repair				X				X	X	1
Fasciotomy				X				X	X	1
CLINICAL SKILLS										
Symptoms and signs of acute arter			X						X	1,3
Investigation	Ankle / brachial pressure index			X					X	1
	Duplex			X					X	1
	DSA			X					X	1
Manage multiply injured patient				X					X	1
Manage systemic effects of arteria				X					X	1
TECHNICAL SKILLS										
Surgical options		Ligation				X				1
		Lateral suture repair				X				1
		End to end anastomosis				X				1
		Interposition vein / prosthetic graft				X				1
		Panel / spiral grafts				X				1
		Fasciotomy				X				1
Radiological		use of shunts				X				
		Imaging techniques				X				
		options for control of bleeding				X				
HYPERHYDROSIS										
OBJECTIVE										
Assessment and management of patients with hyperhidrosis										
KNOWLEDGE										
Anatomy of sympathetic nervous system				X				X	X	1
Physiology of sympathetic nervous system				X				X	X	1
Pathophysiology				X				X	X	1
Presentation				X				X	X	1
Treatment options	Conservative + Medical			X				X	X	1
	Surgical - cervical and lumbar sympathectomy			X				X	X	1

CLINICAL SKILLS										
History and examination			X						X	1,3
Management strategy				X					X	1
TECHNICAL SKILLS										
Axillary Botox therapy					X					1
Surgery	Thoracoscopic sympathectomy					X				1
LYMPHOEDEMA										
OBJECTIVE										
Assessment and management of patients with lymphoedema										
KNOWLEDGE										
Anatomy of lymphatic system				X				X	X	1
Physiology				X				X	X	1
Pathophysiology				X				X	X	1
Classification of lymphoedema	Primary			X				X	X	1
	Secondary			X				X	X	1
Clinical features				X				X	X	1
Complications	Chronic effects			X				X	X	1
Investigation	Lymphoscintigraphy			X				X	X	1
	Lymphangiogram			X				X	X	1
	CT/ MRI			X				X	X	1
Management	Conservative			X				X	X	1
	Surgical options			X				X	X	1
CLINICAL SKILLS										
History and examination			X						X	1,3
Investigation				X					X	1
Management plan				X					X	1
INTERVENTIONAL RADIOLOGY										
OBJECTIVE										
Radiation safety, principles and indication for imaging and inter										
Understand basics of peripheral angiography and intervention										
KNOWLEDGE										
Principles	Physics and safety of ionising radiation - staff and patients			X				X	X	1,2
	Different organ sensitivity and cumulative safe dose			X				X	X	1,2
	Statutory requirements for use of ionising radiation			X				X	X	1,2
	Risk of skin injuries			X				X	X	1,2
	Radiation protection and monitoring			X				X	X	1,2
	Complications of interventional radiation use			X				X	X	1,2
Arterial and venous access sites				X				X	X	1,2
Measures to improve angiographic image				X				X	X	1,2
Risks of radiation contrast				X				X	X	1,2
Risks of angiography and intervention				X				X	X	1,2
Indications for angioplasty / stenting				X				X	X	1
Expected results of angioplasty / stenting				X				X	X	1
Complimentary role of endovas	Medical / surgical therapy			X				X	X	1
Role of different catheter types				X				X	X	1
Use of different guidewire types				X				X	X	1
CLINICAL SKILLS										
Safe use of radiation equipment			X					X	X	1,2
Use of protective equipment			X					X	X	1,2
Use of minimal dose of radiation			X					X	X	1,2
Minimise risk of blood borne pathogens in radiology suite			X					X	X	1,2
Complications	Angioplasty		X	X	X				X	1,2
	Stenting		X	X	X				X	1,2
TECHNICAL SKILLS										
Retrograde femoral artery puncture						X				1
Antegrade femoral artery puncture						X				1
Other arterial puncture						X				1
Ultrasound guided vascular puncture						X				1
Venous access						X				1
Secure vascular access with sheath	Flushes catheter and sheath					X				1
Position guidewire using fluoroscopy						X				1
Place non-selective catheter in aorta						X				1
Satisfactory diagnostic angiograms	Peripheral, renal, mesenteric, fistula					X				1
Recognises inadequate study						X				1
Use drugs appropriately	Vasodilators, anticoagulants, analgesics, sedatives, antiperistaltics					X				1
Angioplasty	Safely negotiates stenosis, appropriate balloon, check angiogram					X				1
Stenting	Primary and secondary stenting					X				1