



THE ROYAL  
COLLEGE OF  
SURGEONS  
OF EDINBURGH



Royal College  
of Surgeons  
of England  
ADVANCING SURGICAL CARE



ROYAL COLLEGE OF  
PHYSICIANS AND  
SURGEONS OF GLASGOW



RCSI

## Joint Committee on Intercollegiate Examinations

# Intercollegiate Specialty Examination in General Surgery

## Syllabus Blueprint 2023

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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 Intercollegiate Specialty Board (ISB) Examination - written section
  - g. Section 2 Intercollegiate Specialty Board (ISB) Examination - 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 ISB Examination and by CBD.
  - b. Clinical skills will be assessed by CEX and Section 2 ISB Examination.
  - c. The use of scenarios within Section 2 ISB Examination 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
8. All aspects of the curriculum are assessed using one or more of the described components of the assessment system. Some curriculum content can be assessed in more than one component but the emphasis will differ between assessments so that testing is not excessive in any one area. The key assessment is the Multiple Consultant Report (MCR) through which trainees are assessed on the high-level outcomes of the curriculum; the Capabilities in Practice (CiPs) and Generic Professional Capabilities (GPCs).

<b>High-level outcomes</b>	<b>Assessment Framework</b>												
	<b>Capabilities in Practice</b>												
		<b>CiP/GPC self-assessment</b>	<b>MCR</b>	<b>MSF</b>	<b>CEX</b>	<b>CBD</b>	<b>PBA</b>	<b>DOPS</b>	<b>AoA</b>	<b>OoT</b>	<b>ISB Section 1</b>	<b>ISB Section 2</b>	
	1. Manages an out-patient clinic	X	X	X	X	X						X	
	2. Manages the unselected emergency take	X	X	X	X	X	X	X				X	
	3. Manages ward rounds and the on-going care of in-patients	X	X	X	X	X						X	
	4. Managing an operating list	X	X	X			X	X					
5. Managing multi-disciplinary working	X	X	X		X								

<b>High-level outcomes</b>	<b>Generic Professional Capabilities</b>												
		<b>CiP/GPC self-assessment</b>	<b>MCR</b>	<b>MSF</b>	<b>CEX</b>	<b>CBD</b>	<b>PBA</b>	<b>DOPS</b>	<b>AoA</b>	<b>OoT</b>	<b>ISB Section 1</b>	<b>ISB Section 2</b>	
	Domain 1: Professional values and behaviours	X	X	X	X	X	X	X	X	X		X	
	Domain 2: Professional Skills	X	X	X	X	X	X	X		X		X	
	Domain 3: Professional knowledge	X	X	X	X	X	X	X	X	X	X	X	
	Domain 4: Capabilities in health promotion and illness prevention	X	X		X	X					X		
	Domain 5: Capabilities in leadership and team working	X	X	X		X	X	X	X	X	X		
	Domain 6: Capabilities in patient safety and quality improvement	X	X			X			X		X		
	Domain 7: Capabilities in safeguarding vulnerable groups	X	X		X	X	X	X			X		
	Domain 8: Capabilities in education and training	X	X							X			
	Domain 9: Capabilities in research and scholarship	X	X										

<b>Syllabus</b>		<b>CiP/GPC self-assessment</b>	<b>MCR</b>	<b>MSF</b>	<b>CEX</b>	<b>CBD</b>	<b>PBA</b>	<b>DOPS</b>	<b>AoA</b>	<b>OoT</b>	<b>ISB Section 1</b>	<b>ISB Section 2</b>
	Knowledge	X	X	X	X	X	X	X	X	X	X	X
	Clinical skills	Clinical skills (general)	X	X	X	X	X					X
		Critical conditions (mandated CEX/CBD)	X	X	X	X	X					X
	Technical skills	Technical skills (general)	X	X				X	X			
		Index procedures (mandated PBA/DOPS)	X	X				X	X			

ELECTIVE

LESIONS OF SKIN AND SUBCUTANEOUS TISSUES	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVE</b>								
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								
<b>KNOWLEDGE</b>								
<b>Basal cell carcinoma:</b>								
Anatomy		X				X	X	1
Histopathology		X				X	X	1
Natural history		X				X	X	1
<b>Malignant melanoma:</b>								
Anatomy		X				X	X	1
Histopathology		X				X	X	1
Natural history		X				X	X	1
Staging		X				X	X	1
<b>Squamous cell carcinoma:</b>								
Anatomy		X				X	X	1
Histopathology		X				X	X	1
Natural history of malignant transformation in chronic ulcers		X				X	X	1
<b>CLINICAL SKILLS</b>								
<b>Basal cell carcinoma:</b>								
Assess skin lesion	X					X	X	1
Biopsy of large skin lesions to plan treatment			X			X	X	1
Closure of large defects after excision by split skin grafts, full thickness grafts, flap closure				X		X	X	1
<b>Malignant melanoma:</b>								
Assess skin lesion	X					X	X	1
Indications for wider excision, lymph node biopsy, axillary or groin block dissection based on staging	X					X	X	1
Squamous cell carcinoma: Assess skin lesion including incisional biopsy	X					X	X	1
<b>TECHNICAL SKILLS</b>								
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	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVE</b>								
Management of abnormalities of the abdominal wall, excluding hernia								
Diagnosis: Ability to diagnose abdominal wall masses								
Treatment: Ability to manage abdominal wall masses								
<b>KNOWLEDGE</b>								
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
<b>CLINICAL SKILLS</b>								
Ability to determine that a swelling is in the abdominal wall	X					X	X	1
Initiate appropriate investigation	X	X				X	X	1
<b>TREATMENT</b>								
Conservative management of haematoma	X	X				X	X	1

RETICULO-ENDOTHELIAL SYSTEM	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVE</b>								
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								
<b>KNOWLEDGE</b>								
<b>Lymphatic conditions:</b>								
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
<b>Conditions involving the spleen:</b>								
Indications for elective splenectomy-haemolytic anaemia, ITP, Thrombocytopenia, 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
<b>CLINICAL SKILLS</b>								
<b>Lymphatic conditions:</b>								
Planning appropriate diagnostic tests		X				X	X	1
Liver biopsy			X			X	X	1
<b>Conditions involving the spleen:</b>								
Planning appropriate treatment schedule in consultation with haematologist	X	X				X	X	1,3
<b>TECHNICAL SKILLS</b>								
<b>Lymphatic conditions:</b>								
Biopsy-FNA			X					1
Liver biopsy			X					1
Lymph node biopsy-groin, axilla			X					
<b>Conditions involving the spleen:</b>								
Splenectomy				X				1

VENOUS THROMBOSIS AND EMBOLISM	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVE</b>								
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								
<b>KNOWLEDGE</b>								
<b>Coagulation:</b>								
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
<b>Diagnosis:</b>								
Methods of investigation for suspected thromboembolic disease		X				X	X	1
<b>Treatment:</b>								
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
<b>Prophylaxis:</b>								
Detailed knowledge of methods of prevention, mechanical and pharmacological		X				X	X	1
<b>CLINICAL SKILLS</b>								
Coagulation: Recognition of patients at risk		X				X	X	1,2
Diagnosis: Awareness of symptoms and signs associated with pulmonary embolism and DVT	X	X				X	X	1
Treatment: Initiate and monitor treatment		X				X	X	1
Prophylaxis: Awareness at all times of the importance of prophylaxis		X				X	X	1,2

GENETIC ASPECTS OF SURGICAL DISEASE	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVES</b>								
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								
<b>KNOWLEDGE</b>								
<b>Endocrine</b>								
<b>Thyroid, Parathyroid, Pancreas and adrenal</b>								
Principal genetically influenced endocrine diseases and syndromes, MEN I, MEN II		X				X	X	1
<b>Colorectal:</b>		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
<b>Breast:</b>								
Outline knowledge of genetic changes which predispose to breast cancer; BRCA1, BRCA2, P53		X				X	X	1
<b>Upper GI/HPB:</b>								
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
<b>Clinical and molecular genetics:</b>								
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	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVE</b>								
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								
<b>KNOWLEDGE</b>								
<b>Cancer epidemiology and presentations</b>								
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
<b>Staging, prognosis and treatment planning</b>								
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
<b>Cancer Biology</b>								
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
<b>Tumour immunology</b>								
Tumour immunology: cellular and humoral components of the immune system; regulatory mechanisms of immune system; tumour antigenicity; 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

<b>Basic principles of cancer treatments and their evaluation</b>									
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
<b>CLINICAL SKILLS</b>									
<b>Cancer epidemiology and presentations</b>									
Recognise symptoms and signs of cancer	X	X				X	X		1
Initiate appropriate diagnostic and staging investigations for common solid tumours		X				X	X		1
<b>Staging, prognosis and treatment planning</b>									
Perform prognostic assessment for patients with common solid tumours		X				X	X		1
Define the role of surgery for given common solid tumours		X				X	X		1
Participation in multi-disciplinary team discussion	X	X			X	X	X		1,3
Undertake adequate pre-operative work-up		X				X	X		1
Manage post-operative care		X				X	X		1
Decide on and perform adequate follow-up		X				X	X		1
Diagnose, score and treat side effects and complications of surgical treatment		X				X	X		1
Recognise common side effects of other treatment modalities		X				X	X		
<b>Basic principles of cancer treatments and their evaluation</b>									
The conduct of clinical studies					X	X	X		2
Design and implement a prospective database (part of audit skills)		X				X	X		2
Elementary principles in biostatistics and commonly used statistical methods (parametric, versus non-parametric etc.)		X				X	X		
Ethical and legal aspects of research		X				X	X		2,4
Present local audits; publication, presentation of case reports					X	X	X		2
<b>TECHNICAL SKILLS</b>									
<b>Staging, prognosis and treatment planning</b>									
Malignant skin lesion-excision biopsy			X						
Lymph node biopsy-groin,axilla			X						
Central venous line insertion			X						
Laparotomy/laparoscopy				X					

<b>ELECTIVE HERNIA</b>	<b>CEX</b>	<b>CBD</b>	<b>DOPS</b>	<b>PBA</b>	<b>MSF</b>	<b>ISB Section 1</b>	<b>ISB Section 2</b>	<b>GMP</b>
<b>OBJECTIVE</b>								
Diagnosis + management, including operative management of primary and recurrent abdominal wall hernia								
<b>KNOWLEDGE</b>								
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
<b>Treatment options</b>								
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
<b>CLINICAL SKILLS</b>								
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	X	1
Supervise the postoperative course in hospital and on follow-up		X			X	X	X	1,3,4
<b>TECHNICAL SKILLS</b>								
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

<b>SURGICAL NUTRITION</b>	<b>CEX</b>	<b>CBD</b>	<b>DOPS</b>	<b>PBA</b>	<b>MSF</b>	<b>ISB Section 1</b>	<b>ISB Section 2</b>	<b>GMP</b>
<b>OBJECTIVES</b>								
Recognise the need for artificial nutritional support, assess whether this is appropriate and manage treatment with enteral or 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								
<b>KNOWLEDGE</b>								
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
<b>CLINICAL SKILLS</b>								
Assessment of GI tract function, in particular of absorption	X	X				X	X	1
Assessment of nutritional status, including use of screening tools	X	X				X	X	1
Assessment of causes of weight loss, including malabsorption and psychological issues	X	X				X	X	1
Decision making about appropriate means of artificial nutritional support	X	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	X	1
Assessment of patient for parenteral nutrition; choice of intravenous catheter and feed type	X	X				X	X	1

Prescription of appropriate enteral or parenteral feed	X	X				X	X	1
Care of the patient on enteral and parenteral support, monitoring of outcome and management of complications	X	X				X	X	1
Assessment of obesity and appropriate referral	X	X				X	X	1,3
<b>TECHNICAL SKILLS</b>								
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					

<b>OUTPATIENT SKILLS</b>	<b>CEX</b>	<b>CBD</b>	<b>DOPS</b>	<b>PBA</b>	<b>MSF</b>	<b>ISB Section 1</b>	<b>ISB Section 2</b>	<b>GMP</b>
<b>OBJECTIVE</b>								
Assess individual outpatients adequately, manage a single outpatient clinic								
Individual patient assessment: Ability to assess individual outpatients								
Organise a consultant led OP service								
<b>KNOWLEDGE</b>								
<b>Individual patient assessment:</b>								
Relevant anatomy, physiology and clinical knowledge for the system involved		X				X	X	
<b>Organisation of outpatient service:</b>								
Understanding of the administrative system of the hospital		X			X	X	X	2
Relevant guidelines for disease management		X				X	X	1,2
<b>CLINICAL SKILLS</b>								
Individual patient assessment:								
Focused history taking and examination	X					X	X	1
Organise appropriate investigations		X				X	X	1
Management of an outpatient clinic:						X	X	
Ability to allocate patients to appropriate staff members					X	X	X	3,4
Ability to prioritise urgent patient investigations and operation		X			X	X	X	3,4
Organisation of outpatient service: Prioritisation of patient appointments					X	X	X	3,4
<b>TECHNICAL SKILLS</b>								
Individual patient assessment:								
Sigmoidoscopy-rigid			X					1
Haemorrhoids-OP treatment(injection/banding or infrared coagulation)			X	X				1

<b>LAPAROSCOPIC SURGERY</b>	<b>CEX</b>	<b>CBD</b>	<b>DOPS</b>	<b>PBA</b>	<b>MSF</b>	<b>ISB Section 1</b>	<b>ISB Section 2</b>	<b>GMP</b>
<b>OBJECTIVE</b>								
To understand the principles of laparoscopic surgery including technical aspects and common complications								
<b>KNOWLEDGE</b>								
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
<b>CLINICAL SKILLS</b>								
Pre and postoperative management of laparoscopic cases		X				X	X	1
Port complications				X		X	X	1
<b>TECHNICAL SKILLS</b>								
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**

<b>SUPERFICIAL SEPSIS INCLUDING NECROTISING INFECTIONS</b>	<b>CEX</b>	<b>CBD</b>	<b>DOPS</b>	<b>PBA</b>	<b>MSF</b>	<b>ISB Section 1</b>	<b>ISB Section 2</b>	<b>GMP</b>
<b>OBJECTIVE</b>								
Diagnosis and basic management of superficial sepsis, gas gangrene and other necrotising infections								
<b>KNOWLEDGE</b>								
<b>Infected sebaceous cyst / carbuncle</b>								
Natural history		X				X	X	1
Bacteriology		X				X	X	1
Associated medical conditions		X				X	X	1
<b>Superficial abscess</b>								
Aetiology		X				X	X	1
Natural history		X				X	X	1
Bacteriology		X				X	X	1
<b>Cellulitis</b>								
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
<b>Infected ingrowing toenail / paronychia</b>								
Aetiology		X				X	X	1
Bacteriology		X				X	X	1
Atherosclerosis		X				X	X	1
Diabetes		X				X	X	1
<b>Gas gangrene and other Necrotising Infections</b>								
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
<b>CLINICAL SKILLS</b>								
<b>Infected sebaceous cyst / carbuncle</b>								
History and examination	X					X	X	1
Medical management of diabetes periop	X					X	X	1
<b>Superficial abscess</b> History and Examination	X					X	X	1
Breast abscess - Arrange imaging modalities	X					X	X	1
<b>Cellulitis</b>								
History and examination	X					X	X	1
IV therapy	X					X	X	1
Infected ingrowing toenail / paronychia	X					X	X	1
Warning signs of necrotising fasciitis	X					X	X	1
<b>TECHNICAL SKILLS</b>								
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
<b>Infected ingrowing toenail / paronychia</b>								
Nail avulsion / wedge resection / phenolisation			X					1
<b>Radical excisional surgery</b>								
Fournier's gangrene, necrotising fasciitis, gas gangrene, debridement, diabetic foot			X	X				1

<b>PERITONITIS / ACUTE ABDOMEN (combined)</b>	<b>CEX</b>	<b>CBD</b>	<b>DOPS</b>	<b>PBA</b>	<b>MSF</b>	<b>ISB Section 1</b>	<b>ISB Section 2</b>	<b>GMP</b>
<b>OBJECTIVE</b>								
Recognition and management of peritonitis								
<b>KNOWLEDGE</b>								
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
Pathophysiology of obstruction / strangulation		X				X	X	1
Conditions which do not require surgery		X				X	X	1
<b>CLINICAL SKILLS</b>								
History and examination	X	X				X	X	1
Recognition of severity of disease	X	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	X	1
Recognition of success or failure of non-operative treatment	X	X			X	X	X	1,2
Ability to perform emergency laparotomy	X	X				X		1
Indication for and timing of intervention	X	X				X	X	1
Recognition and management of complications	X	X			X	X	X	1,2
<b>TECHNICAL SKILLS</b>								
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	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVE</b>								
Recognise and manage most cases of intestinal obstruction								
<b>KNOWLEDGE</b>								
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
<b>CLINICAL SKILLS</b>								
History and examination	X	X				X	X	1
Resuscitation	X	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	X	1
Ability to perform emergency laparotomy	X	X						1
<b>TECHNICAL SKILLS</b>								
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	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVE</b>								
Recognition and management of acute appendicitis								
<b>KNOWLEDGE</b>								
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
<b>CLINICAL SKILLS</b>								
History and examination		X				X	X	1
Investigation		X				X	X	1
Resuscitation		X				X	X	1
Postoperative management		X				X	X	1
<b>TECHNICAL SKILLS</b>								
Appendicectomy - open / lap				X				1

STRANGULATED HERNIA	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVES</b>								
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								
<b>KNOWLEDGE</b>								
<b>Strangulated inguinal hernia</b>								
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
<b>Strangulated femoral hernia</b>								
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
<b>Strangulated incisional hernia</b>								
Anatomy of abdominal wall		X				X	X	1
Pathophysiology		X				X	X	1
Postoperative complications		X				X	X	1
<b>Strangulated internal hernia</b>								
Anatomy						X		1
Pathophysiology						X		1
Postoperative complications						X		1
<b>CLINICAL SKILLS</b>								
History and examination	X	X				X	X	1
Resuscitation	X	X				X	X	1
<b>Investigation of possible strangulated hernia</b>								
Inguinal		X				X	X	1
Femoral		X				X	X	1
Incisional		X				X	X	1
Internal		X				X	X	1
<b>Operative strategy</b>								
Strangulated inguinal hernia		X				X	X	1
Strangulated femoral hernia		X				X	X	1
Strangulated incisional hernia		X				X	X	1
Strangulated internal hernia		X				X	X	1
Postoperative complications		X				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	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVE</b>								
To recognise, manage and appropriately refer acute gynaecological disease								
<b>KNOWLEDGE</b>								
<b>Pelvic inflammatory disease/Endometriosis/salpingitis</b>								
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 - referral pathway		X				X	X	1,3
<b>Obstruction secondary to ovarian carcinoma</b>								
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
<b>Intra-abdominal haemorrhage from ruptured ovarian cyst / ectopic pregnancy</b>								
Anatomy of pelvis		X				X	X	1
Physiology of pelvic organs		X				X	X	1
Management of diagnosed condition		X				X	X	1
<b>Iatrogenic injury</b>								
Anatomy of pelvis		X				X	X	1
Physiology of pelvic organs		X				X	X	1
<b>CLINICAL SKILLS</b>								
<b>Pelvic inflammatory disease/endometriosis/salpingitis</b>								
History and examination	X					X	X	1
Organise pelvic ultrasound / pregnancy test	X					X	X	1
CT scan / tumour markers	X					X	X	1
Ability to perform diagnostic laparoscopy / laparotomy				X				1
<b>Obstruction secondary to ovarian carcinoma</b>								
History and examination	X					X	X	1
Nonoperative management	X					X	X	1
Perform emergency laparotomy				X				1
<b>Intra-abdominal haemorrhage of gynaecological origin</b>								
History and examination	X					X	X	1
Organise pelvic ultrasound and pregnancy test	X					X	X	1
Ability to perform diagnostic laparotomy / laparoscopy				X				1
<b>Iatrogenic injury</b>								
Recognition of nature and extent of injury				X		X	X	1
Ability to perform emergency laparotomy				X				1
<b>TECHNICAL SKILLS</b>								
Laparotomy / laparoscopy				X				1
Hartmann's procedure				X				1
Sigmoid colectomy				X				1

GASTROINTESTINAL BLEEDING (see also acute gastric bleeding)	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVE</b>								
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								
<b>KNOWLEDGE</b>								
<b>Blood loss and hypotension</b>								
Physiology of hypovolaemia		X				X	X	1
Coagulopathy		X				X	X	1
Recognition of all causes of GI bleeding		X				X	X	1
<b>Treatment</b>								
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
<b>CLINICAL SKILLS</b>								
<b>Blood loss and hypotension</b>								
Resuscitation of hypotensive patient	X	X				X	X	1
HDU care		X				X	X	1
<b>Cause of bleeding</b>								
Clinical assessment	X					X	X	1
Organise appropriate endoscopy or other investigation	X					X	X	1,3
Treatment - appropriate surgery		X				X	X	1
<b>Postoperative care</b>								
Analgesia		X				x	X	1
Nutrition		X				x	X	1
Recognition of complications		X				x	X	1
Complications		X				x	X	1
Rebleeding and postoperative problems - early recognition		X				x	X	1
Treatment of complications		X				x	X	1
<b>TECHNICAL SKILLS</b>								
Diagnostic gastroscopy				X				
Flexible sigmoidoscopy				X				

COMPLICATIONS OF ABDOMINAL SURGERY	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVE</b>								
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								
<b>KNOWLEDGE</b>								
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
<b>CLINICAL SKILLS</b>								
Logical and prioritised approach to complications	X					X	X	1
Assessment of the post operative GI surgical patient with emergency complications	X					X	X	1
Assessment of the patient with multiple organ failure from a surgical perspective	X					X	X	1
Interpretation of Investigations	X					X	X	1
Management decisions for early and late complications of GI surgery presenting as emergencies		X				X	X	1
Involve specialists and colleagues appropriately, including referral for embolisation		X				X	X	1,3
<b>TECHNICAL SKILLS</b>								
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	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVES</b>								
The ability to assess and manage a child with abdominal pain including appendicectomy								
<b>KNOWLEDGE</b>								
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
<b>CLINICAL SKILLS</b>								
Ability to assess ill child	X					X	X	1,3
Ability to form a viable investigation and treatment plan	X					X	X	1
<b>TECHNICAL SKILLS</b>								
Appendicectomy				X				1
Laparotomy/laparoscopy				X				1

INTUSSUSCEPTION	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>Objective</b>								
The ability to assess and manage a child with intussusception including referral for radiological or surgical reduction								
<b>Knowledge</b>								
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
<b>Clinical Skills</b>								
Ability to assess child and recognise severity of illness	X					X	X	1
Ability to take appropriate resuscitative measures and form a viable investigation and treatment plan	X					X	X	1,3
<b>Treatment Plan</b>								
Ability to communicate with all relevant groups, including referral for specialist treatment					X	X	X	1,3
Reduction of intussusception			X			X	X	1

ACUTE GROIN CONDITION	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>Objective</b>								
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								
<b>Knowledge</b>								
<b>Inguinal Hernia</b>								
Developmental anatomy		X				X	X	1
Natural history		X				X	X	1
Indications for and outcomes of surgery		X				X	X	1
<b>Acute scrotum</b>								
Natural history		X				X	X	1
Place of conservative management		X				X	X	1
Indications for and outcomes of surgery		X				X	X	1
<b>CLINICAL SKILLS</b>								
<b>Inguinal Hernia</b>								
Ability to assess child and reach appropriate diagnosis	X					X	X	1,3
Ability to form a treatment plan and refer on when necessary	X					X	X	1,3
<b>Acute scrotum</b>								
Ability to assess child and reach appropriate diagnosis	X					X	X	1,3
Ability to form a treatment plan and refer on when necessary	X					X	X	1,3
<b>TECHNICAL SKILLS</b>								
<b>Inguinal hernia</b>								
Inguinal hernia (not neonatal) operation				X				1
<b>Acute scrotum</b>								
Operation for testicular torsion				X				1

ACUTE DYSPHAGIA	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVES</b>								
Assessment and initial management of patients presenting with acute dysphagia								
<b>KNOWLEDGE</b>								
<b>Applied Anatomy</b>								
Oesophagus and levels of constriction		X				X	X	1
<b>Aetiology</b>								
Carcinoma, peptic stricture, achalasia		X				X	X	1
<b>CLINICAL SKILLS</b>								
History and Examination	X					X	X	1,3
Investigation - Endoscopy; CT	X					X	X	1
Initial symptomatic management	X					X	X	1
Referral to specialist unit for definitive management	X					X	X	1,3
<b>TECHNICAL SKILLS</b>								
Endoscopy				X				1
Endoscopic palliation incl stenting				X				1

OESOPHAGEAL VARICES	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVES</b>								
Assessment, initial and emergency management of patients presenting with oesophageal varices								
<b>KNOWLEDGE</b>								
<b>Anatomy</b>								
Anatomy		X				X	X	1
<b>Pathophysiology</b>								
Aetiology of portal hypertension		X				X	X	1
Clinical presentation		X				X	X	1
Diagnosis		X				X	X	1
<b>Treatment options</b>								
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
<b>Complications</b>								
Child's classification of liver disease		X				X	X	1
<b>CLINICAL SKILLS</b>								
History and Examination	X					X	X	1,3
Investigation - Endoscopic assessment	X					X	X	1
Resuscitation	X					X	X	1
Decision making	X	X				X	X	1
Non-operative treatment - sclerotherapy / banding		X				X	X	1
Referral to specialist unit for definitive management		X			X			1,3
<b>Operative options</b>								
Porto-caval shunt; Oesophageal transection		X				X	X	1
Postoperative management		X				X	X	1
<b>TECHNICAL SKILLS</b>								
Endoscopy				X				1
Variceal injection			X					1
Balloon tamponade			X					1

BOERHAAVE'S	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVES</b>								
Assessment and initial management of patients presenting with Boerhaave's								
<b>KNOWLEDGE</b>								
<b>Anatomy</b>								
Anatomy		X				X	X	1
<b>Pathophysiology - aetiology</b>								
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
<b>CLINICAL SKILLS</b>								
History and Examination	X					X	X	1,3
Investigation	X	X				X	X	1
Decision making	X	X				X	X	1
Non-operative treatment	X	X				X	X	1
Referral to specialist unit for definitive management		X			X	X	X	1,3
Interventional options - primary repair, nutritional support		X				X	X	1
Postoperative management		X				X	X	1
<b>TECHNICAL SKILLS</b>								
Endoscopy				X				1
Thoracotomy + non-resectional management				X				1
Oesophagectomy				X				1

IATROGENIC OESOPHAGEAL PERFORATION	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVES</b>								
Assessment and initial management of patients presenting with iatrogenic oesophageal perforation								
<b>KNOWLEDGE</b>								
<b>Anatomy - Oesophagus and mediastinal relationships</b>								
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
<b>CLINICAL SKILLS</b>								
History and Examination	X					X	X	1,3
Investigation	X	X				X	X	1
Decision making		X				X	X	1
Non-operative treatment - Pleural drainage; antibiotics; nutritional support		X				X	X	1
Interventional options		X				X	X	1
Referral to specialist unit for definitive management		X			X	X	X	1,3
Postoperative management		X				X	X	1

TECHNICAL SKILLS								
Endoscopy					X			1
Endoscopic interventions incl stent					X			1
Thoracotomy + lavage					X			1
Oesophagectomy					X			1

ACUTE GASTRIC DILATION	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVES</b>								
Assessment, initial and emergency management of patients presenting with acute gastric dilatation								
<b>KNOWLEDGE</b>								
Applied Anatomy		X				X	X	1
<b>Pathophysiology</b>								
Spontaneous; postsplenectomy		X				X	X	1
Clinical presentation		X				X	X	1
Complications		X				X	X	1
<b>CLINICAL SKILLS</b>								
History and Examination	X	X				X	X	1,3
Investigation - contrast radiology, CT	X	X				X	X	1
Resuscitation		X				X	X	1
Decision making		X				X	X	1
Non-operative treatment NG aspiration		X				X	X	1
Referral to specialist unit for definitive management		X				X	X	1,3
Operative options		X				X	X	1
Postoperative management		X				X	X	1
<b>TECHNICAL SKILLS</b>								
NG tube insertion			X					1
Endoscopy				X				1
Gastrectomy				X				1

ACUTE GASTRIC HAEMORRHAGE	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVES</b>								
Assessment, initial and emergency management of patients presenting with upper GI haemorrhage								
<b>KNOWLEDGE</b>								
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
<b>CLINICAL SKILLS</b>	X							
History and Examination	X	X				X	X	1,3
Investigation - endoscopy		X				X	X	1
Resuscitation - management of hypovolaemic shock		X				X	X	1
Decision making - indications for intervention		X				X	X	1
Referral to specialist unit for definitive management		X				X	X	1,3
Non-operative treatment - sclerotherapy		X				X	X	1
Operative options		X				X	X	1
Postoperative management - rebleeding						X	X	1
<b>TECHNICAL SKILLS</b>								
Endoscopy				X				1
Endoscopic therapy				X				1
Gastrotomy + non-resectional treatment - histology				X				1
Partial gastrectomy				X				1
Total gastrectomy				X				1

ACUTE PERFORATION	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVES</b>								
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								
<b>KNOWLEDGE</b>								
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
<b>CLINICAL SKILLS</b>								
History and Examination - peritonitis	X	X				X	X	1,3
Investigation	X	X				X	X	1
Resuscitation		X				X	X	1
Decision making - comorbidity		X				X	X	1
Operative options - closure, local excision, resection		X				X	X	1
Postoperative management		X				X	X	1
<b>TECHNICAL SKILLS</b>								
Laparoscopy				X				1
Local treatment, ulcer closure or excision				X				1
Partial gastrectomy				X				1
Total gastrectomy				X				1

ACUTE GASTRIC VOLVULUS	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVES</b>								
Assessment and initial management of patients presenting with acute gastric volvulus								
<b>KNOWLEDGE</b>								
Applied Anatomy - para-oesophageal 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

<b>CLINICAL SKILLS</b>								
History and Examination		X	X			X	X	1,3
Investigation		X	X			X	X	1
Resuscitation - fluid			X			X	X	1
Decision making - indications for surgery			X			X	X	1
Referral to specialist unit for definitive management			X			X	X	1,3
Operative options - endoscopic, urgent or delayed surgery			X			X	X	1
Postoperative management			X			X	X	1
<b>TECHNICAL SKILLS</b>								
Endoscopy					X			1
Gastropexy					X			1
Hiatus hernia repair					X			1
Total Gastrectomy					X			1

<b>GALLSTONE DISEASE</b>								
	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVES</b>								
Diagnosis and management of acute gallstone disease, including operation.								
Acute gall stone disease including acute cholecystitis, empyema, acute biliary colic and cholangitis								
<b>KNOWLEDGE</b>								
Anatomy		X				X	X	1
Pathophysiology		X				X	X	1
Microbiology		X				X	X	1
<b>Complications</b>								
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
<b>Postoperative problems</b>								
Bile duct injury		X				X	X	1
<b>CLINICAL SKILLS</b>								
History and Examination - elective, acute, emergency	X					X	X	1
Investigation - U/S, ERCP, MRCP, CT	X	X				X	X	1
Resuscitation		X				X	X	1
Decision making		X				X	X	1
Non-operative treatment - ERCP, U/S cholecystotomy		X				X	X	1
Operative options - lap chole		X				X	X	1,2
Postoperative management		X				X	X	1,2
<b>TECHNICAL SKILLS</b>								
Cholecystectomy - lap / open				X				1
Cholecystostomy				X				1
Exploration CBD				X				1
Hepaticoducho-jejunostomy				X				1

<b>ACUTE PANCREATITIS</b>								
	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVES</b>								
Diagnosis and management of most patients with acute pancreatitis								
<b>KNOWLEDGE</b>								
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
<b>CLINICAL SKILLS</b>								
History and Examination	X					X	X	1
Investigation	X	X				X	X	1
Resuscitation		X				X	X	1
Decision making		X				X	X	1
Non-operative treatment incl nutrition, use of antibiotics		X				X	X	1
Interventional options - ERCP, radiological drainage		X				X	X	1
<b>Postoperative management</b>								
Abscess; Pseudocyst; Haemorrhage		X				X	X	1
<b>TECHNICAL SKILLS</b>								
Cholecystectomy				X				1
Exploration CBD				X				1
ERCP				X				1
Necrosectomy				X				1
Pseudocyst drainage				X				1

<b>CHRONIC PANCREATITIS</b>								
	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVES</b>								
Assessment and management of patients with chronic pancreatitis								
<b>KNOWLEDGE</b>								
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	X	1
Investigation	X	X				X	X	1
Resuscitation		X				X	X	1
Decision making		X				X	X	1
Non-operative treatment incl ERCP		X				X	X	1
Operative options		X				X	X	1
Postoperative management		X				X	X	1
TECHNICAL SKILLS								
ERCP				X				1
Pancreaticojejunostomy				X				1
Pancreaticoduodenectomy				X				1
Distal pancreatectomy				X				1
Hepaticoducho-jejunostomy				X				1
Pseudocyst drainage				X				1

PERI-ANAL SEPSIS								
OBJECTIVE	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
Recognise and manage acute peri-anal sepsis								
CLINICAL SKILLS								
Differentiate cryptoglandular abscess and fistula from other causes	X	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	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
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	X	1
TECHNICAL SKILLS								
Drainage of pilonidal abscess			X	X				1

ACUTE PAINFUL PERI-ANAL CONDITIONS								
OBJECTIVE	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
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	X	1
Initial conservative management of anal fissure and thrombosed haemorrhoids and planning of surgical treatment for perianal haematoma		X				X		1
TECHNICAL SKILLS								
EUA, rigid sigmoidoscopy, drain perianal haematoma			X	X				1

ACUTE COLONIC DIVERTICULITIS								
OBJECTIVES	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
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	X	1
Arrange appropriate diagnostic studies in suitable sequence in the evaluation of acute colonic diverticular disease		X				X	X	1
Medical and dietary management of colonic diverticular disease		X				X	X	1
Medical management for acute diverticulitis		X				X	X	1
Preoperative assessment including the indications for surgery, surgical procedures, and complications for acute diverticulitis		X				X	X	1
Choose appropriate surgical procedures including CT guided drainage for the management of acute diverticulitis		X				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
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	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
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

<b>CLINICAL SKILLS</b>								
Recognise the clinical patterns, presenting symptoms, physical findings, and natural history of colonic volvulus based upon its site	X	X				X	X	1
Arrange diagnostic studies in appropriate sequence		X				X	X	1
Appropriate operative procedures for volvulus depending on site		X				X	X	1
<b>TECHNICAL SKILLS</b>								
Sigmoidoscopy-rigid			X					1
Sigmoidoscopy-flexible			X					1
Colonoscopy-diagnostic				X				1
Colonoscopy-therapeutic - insertion of PEC button				X				1

<b>MASSIVE LOWER GI BLEEDING</b>								
	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVE</b>								
Management of massive lower GI tract bleeding								
<b>KNOWLEDGE</b>								
Aetiology of massive lower GI bleeding, including Meckel's		X				X	X	1
Utility, specificity and sensitivity of colonoscopy, angiography and radio-isotope scintigraphy in evaluation of lower GI bleeding		X				X	X	1
Angiographic treatment of lower GI bleeding		X				X	X	1
<b>CLINICAL SKILLS</b>								
Assess haemodynamic stability and outline a resuscitation plan	X	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	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 radiological intervention or surgery, arrange radiological intervention or appropriate surgical procedures and recognise their possible complications based upon cause, location, patient age and medical condition		X				X	X	1,3
Perform 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	X	1
<b>TECHNICAL SKILLS</b>								
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

<b>ACUTE COLITIS</b>								
	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVES</b>								
Diagnosis and management of acute colitis including ischaemic, inflammatory and infective								
<b>KNOWLEDGE</b>								
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
<b>CLINICAL SKILLS</b>								
Recognise the clinical presentation of all types of acute colitis	X					X	X	1
Recognise the natural history, diagnosis, and be able to initially manage all types of colitis		X				X	X	1
Recognise and manage ischaemic colitis after abdominal aortic aneurysm repair		X				X	X	1,3
<b>TECHNICAL SKILLS</b>								
Colectomy-right				X				1
Colectomy-transverse				X				1
Colectomy-left				X				1
Colectomy-sigmoid				X				1
Colectomy-total+ileostomy				X				1
Colectomy-total+ileoanal anastomosis				X				1
Crohn's-ileocaecostomy				X				1

<b>EMERGENCY ANEURYSM DISEASE</b>								
	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVES</b>								
Assessment and management of emergency aneurysm disease								
<b>KNOWLEDGE</b>								
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
<b>CLINICAL SKILLS</b>								
History	X					X	X	1
Examination	X					X	X	1
Resuscitation		X				X	X	1
Assessment of comorbidity	X	X				X	X	1
Investigation: CT		X				X	X	1
Selection for intervention		X				X	X	1
Recognition of complications		X				X	X	1
Management of complications		X				X	X	1
<b>TECHNICAL SKILLS</b>								
Endovascular AAA repair				X				1
Open AAA repair				X				1



MESENTERIC VASCULAR DISEASE	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVES</b>								
Assessment and management of patients with acute and chronic mesenteric ischaemia								
<b>KNOWLEDGE</b>								
Anatomy of mesenteric arterial and venous system		X				X	X	1
Pathophysiology of mesenteric ischaemia		X				X	X	1
<b>Presentation of mesenteric vascular disease</b>								
Acute		X				X	X	1
Chronic		X				X	X	1
Venous		X				X	X	1
<b>Investigation:</b>								
Duplex, MR, CT, catheter angiography		X				X	X	1
<b>Treatment options:</b>								
Endovascular		X				X	X	1
Operative		X				X	X	1
Complications of treatment		X				X	X	1
<b>CLINICAL SKILLS</b>								
History	X					X	X	1
Examination	X					X	X	1
Resuscitation		X				X	X	1
Patient selection for intervention		X				X	X	1
<b>TECHNICAL SKILLS</b>								
Endovascular intervention				X				
Mesenteric bypass				X				

ACUTE LIMB ISCHAEMIA	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVE</b>								
Ability to recognise acute and chronic limb ischaemia and understand emergency management								
<b>KNOWLEDGE</b>								
Anatomy of arterial system		X				X	X	1
<b>Pathophysiology</b>								
Embolism		X				X	X	1
Thrombosis		X				X	X	1
Trauma		X				X	X	1
Iatrogenic		X				X	X	1
<b>Investigations</b>								
Doppler		X				X	X	1
Duplex		X				X	X	1
Angiography		X				X	X	1
CT		X				X	X	1
<b>Management</b>								
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
<b>CLINICAL SKILLS</b>								
History	X					X	X	1
Examination	X					X	X	1
Recognition of acute, acute on chronic and chronic limb ischaemia	X					X	X	1
Ability to assess the degree of limb ischaemia	X					X	X	1
<b>Investigations</b>								
Doppler		X				X	X	1
Duplex		X				X	X	1
Angiography		X				X	X	1
CT		X				X	X	1
Echocardiogram, 24 hour ECG		X				X	X	1
<b>TECHNICAL SKILLS</b>								
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)	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVE</b>								
Identify and manage the majority of abdominal injuries								
<b>KNOWLEDGE</b>								
Anatomy of abdomen		X				X	X	1
Aetiology and Epidemiology		X				X	X	1
Pathophysiology of shock		X				X	X	1
Recognition 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
<b>CLINICAL SKILLS</b>								
Triage	X					X	X	
History and examination	X					X	X	1,2
Resuscitation		X				X	X	1
Investigations		X				X	X	1
Appropriate use of radiographs, CT and ultrasound		X				X	X	1

Indications for intervention		X				X	X	1
Recognition of injuries requiring other specialties		X				X	X	1,3
Management of hollow organ injury		X				X	X	1
Understand indications for Damage Control vs Definitive Surgery		X				X	X	1

<b>ABDOMEN AND THORAX TRAUMA</b>	<b>CEX</b>	<b>CBD</b>	<b>DOPS</b>	<b>PBA</b>	<b>MSF</b>	<b>ISB Section 1</b>	<b>ISB Section 2</b>	<b>GMP</b>
<b>OBJECTIVES</b>								
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								
<b>KNOWLEDGE</b>								
<b>Closed and penetrating thoracic injury</b>								
Anatomy		X				X	X	1
Concept of low energy, high energy transfer injury		X				X	X	1
Pathogenesis of shock		X				X	X	1
<b>Closed and penetrating abdominal injury</b>								
Anatomy		X				X	X	1
Concept of energy, low high energy transfer injury		X				X	X	1
Pathogenesis of shock		X				X	X	1
<b>CLINICAL SKILLS</b>								
Indications for and interpretation of CT		X				X	X	1
Indications for radiological intervention for haemorrhage control		X				X	X	1
<b>Closed thoracic injury</b>								
Assessment and initial management of multiply injured patient	X					X	X	1
Recognise need for operative intervention and organise		X				X	X	1
Understand indications for ER thoracotomy		X				X	X	1
Postoperative management and recognition of complications		X				X	X	1
<b>Penetrating thoracic injury</b>								
Assessment and initial management of multiply injured patient	X					X	X	1
Recognise need for operative intervention and organise		X				X	X	1
Recognise and treat sucking chest wound		X				X	X	1
Understand indications for ER thoracotomy		X				X	X	1
Postoperative management and recognition of complications		X				X	X	1
<b>Closed and penetrating abdominal injury</b>								
Assessment and initial management of multiply injured patient	X					X	X	1
Recognise need for laparotomy and organise		X				X	X	1
Arrest haemorrhage by suture/ligation/packing				X		X	X	1
Indication for pelvic fixator		X				X	X	1
Drains for biliary / pancreatic injury		X				X	X	1
Management of retroperitoneal haematoma		X				X	X	1
Postoperative management and recognition of complications		X				X	X	1
<b>TECHNICAL SKILLS</b>								
<b>Closed and Penetrating thoracic injury</b>								
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
<b>Closed and penetrating abdominal injury</b>								
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

<b>HEAD AND NECK TRAUMA</b>	<b>CEX</b>	<b>CBD</b>	<b>DOPS</b>	<b>PBA</b>	<b>MSF</b>	<b>ISB Section 1</b>	<b>ISB Section 2</b>	<b>GMP</b>
<b>OBJECTIVE</b>								
Identification, assessment and initial management of trauma to the Head and Neck								
<b>KNOWLEDGE</b>								
Anatomy of the Head and Neck		X				X	X	1
<b>CLINICAL SKILLS</b>								
Immobilisation of patients with suspected cervical spine injury	X					X	X	1
Observation of patients with head injury	X					X	X	1
Interpretation of plain radiographs and CT scans of cervical spine	X	X				X	X	1
Interpretation of CT brain/skull	X	X				X	X	1
Decision to refer to Neurosurgeon		X				X	X	1,3

TECHNICAL SKILLS								
Exposure, control and repair of vascular, airway or GI tract structures in the neck								1
Cryothyroidotomy								1
Formal tracheostomy								1
Burr holes								1
Craniotomy/Craniectomy								1
Evacuation of Extradural/Subdural haematoma								1
Debridement of injured brain								1
Lateral canthotomy for orbital decompression								1

EXTREMITY AND SOFT TISSUE TRAUMA								
	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVE</b>								
Assessment and management of blunt and penetrating injury of the soft tissues and skeleton								
<b>KNOWLEDGE</b>								
Anatomy of the limbs						X	X	
<b>Blunt and penetrating soft tissue and skeletal injury</b>								
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
<b>CLINICAL SKILLS</b>								
<b>Blunt and penetrating soft tissue and skeletal injury</b>								
Assessment and initial management of multiply injured patient	X					X	X	1
Arrest haemorrhage by pressure and tourniquet	X					X	X	1
Appropriate immobilisation during assessment	X					X	X	1
Recognition of major vascular trauma	X	X				X	X	1
Assessment of ischaemic limb	X	X				X	X	1
Recognition and treatment of acute compartment syndrome	X	X				X	X	1
Postoperative management and recognition of complications	X	X				X	X	1
<b>TECHNICAL SKILLS</b>								
<b>Proximal arterial control</b>								
Femoral				X				1
Brachial				X				1
Subclavian				X				1
<b>Soft Tissue Management</b>								
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								
	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVE</b>								
Identification, assessment and management of injuries to blood vessels								
<b>KNOWLEDGE</b>								
<b>Surgical anatomy</b>								
Relationship of vascular structures to fractures, nerves, associated structures		X				X	X	1
<b>Mechanisms of vascular injury</b>								
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
<b>Investigations</b>								
Indications		X				X	X	1
Invasive		X				X	X	1
Non-invasive		X				X	X	1
<b>Operative approach to specific injuries</b>								
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
<b>CLINICAL SKILLS</b>								
Symptoms and signs of acute arterial / venous injury	X	X				X	X	
<b>Investigation</b>								
Ankle / brachial pressure index	X	X				x	X	
Duplex		X				x	X	
CT angiogram		X				x	X	
DSA		X				x	X	
Manage multiply injured patient	X	X				x	X	
Manage systemic effects of arterial trauma - rhabdomyolysis		X				x	X	
<b>TECHNICAL SKILLS</b>								
Control with compression				X				
<b>Surgical options</b>								
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				
<b>Radiological</b>								
Intra-operative imaging techniques		X		X				
Options for control of bleeding		X		X				

**OESOPHAGO-GASTRIC**

<b>GASTRO-OESOPHAGEAL REFLUX DISEASE</b>	<b>CEX</b>	<b>CBD</b>	<b>DOPS</b>	<b>PBA</b>	<b>MSF</b>	<b>ISB Section 1</b>	<b>ISB Section 2</b>	<b>GMP</b>
<b>OBJECTIVES</b>								
Assessment and management of patients presenting with GORD								
<b>KNOWLEDGE</b>								
<b>Anatomy</b>								
Lower third of oesophagus; oesophageal sphincter		X				X	X	1
<b>Pathophysiology</b>								
Acid or bile reflux; pH abnormalities; motility disorder		X				X	X	1
<b>Pathology</b>								
Classification of oesophagitis		X				X	X	1
<b>Complications</b>								
Barrett's metaplasia; stricture		X				X	X	1
<b>CLINICAL SKILLS</b>								
History and Examination	X					X	X	1,3
<b>Investigation</b>								
Endoscopy, pH studies, Manometry		X				X	X	1
<b>Decision making</b>								
Indications for surgery		X				X	X	1
<b>Non operative options</b>								
Medical management; postural changes		X				X	X	1
<b>Operative options</b>								
Indications for surgery; antireflux surgery - open or laparoscopic		X				X	X	1
Postoperative management		X				X	X	1
<b>TECHNICAL SKILLS</b>								
Endoscopy				X				1
Antireflux surgery				X				1
Revisional antireflux surgery				X				1

<b>HIATUS HERNIA</b>	<b>CEX</b>	<b>CBD</b>	<b>DOPS</b>	<b>PBA</b>	<b>MSF</b>	<b>ISB Section 1</b>	<b>ISB Section 2</b>	<b>GMP</b>
<b>OBJECTIVES</b>								
Assessment of patients presenting with hiatus hernia								
<b>KNOWLEDGE</b>								
<b>Applied Anatomy - Sliding; para-oesophageal</b>		X				X	X	1
<b>Pathophysiology</b>		X				X	X	1
<b>Pathology</b>		X				X	X	1
<b>Complications - incarceration</b>		X				X	X	1
<b>CLINICAL SKILLS</b>								
History and Examination	X					X	X	1
Investigation - contrast radiology, manometry		X				X	X	1
Decision making - indications for operation		X				X	X	1
<b>Non operative options</b>								
Medical management: weight loss, posture		X				X	X	1
Postoperative management		X				X	X	1
<b>TECHNICAL SKILLS</b>								
Endoscopy				X				1
Open repair				X				1
Laparoscopic repair				X				1
Revisional antireflux surgery				X				1

<b>PEPTIC STRICTURE</b>	<b>CEX</b>	<b>CBD</b>	<b>DOPS</b>	<b>PBA</b>	<b>MSF</b>	<b>ISB Section 1</b>	<b>ISB Section 2</b>	<b>GMP</b>
<b>OBJECTIVES</b>								
Assessment and management of patients presenting with peptic stricture								
<b>KNOWLEDGE</b>								
<b>Anatomy</b>		X				X	X	1
<b>Pathophysiology - Physiology of reflux - pH; motility</b>		X				X	X	1
<b>Pathology - Differential diagnosis</b>		X				X	X	1
<b>Complications - perforation</b>		X				X	X	1
<b>CLINICAL SKILLS</b>								
History and Examination	X					X	X	1,3
<b>Investigation</b>								
Endoscopy; contrast radiology; pH studies; manometry		X				X	X	1
Decision making - Indications for dilatation		X				X	X	1
Postoperative management - Diagnosis and management of perforation		X				X	X	1
<b>TECHNICAL SKILLS</b>								
Endoscopy				X				1
Oesophageal dilatation				X				1

<b>ACHALASIA</b>	<b>CEX</b>	<b>CBD</b>	<b>DOPS</b>	<b>PBA</b>	<b>MSF</b>	<b>ISB Section 1</b>	<b>ISB Section 2</b>	<b>GMP</b>
<b>OBJECTIVES</b>								
Assessment and management of patients presenting with achalasia								
<b>KNOWLEDGE</b>								
<b>Anatomy</b>		X				X	X	1
<b>Pathophysiology</b>		X				X	X	1
<b>Pathology</b>		X				X	X	1
<b>Complications</b>		X				X	X	1
<b>CLINICAL SKILLS</b>								
History and Examination	X					X	X	1,3
Investigation		X				X	X	1
Decision making		X				X	X	1
Non operative options		X				X	X	1
Postoperative management		X				X	X	1

TECHNICAL SKILLS								
Endoscopy					X			1
Endoscopic dilation					X			1
Endoscopic botox injection					X			1
Laparoscopic cardiomyotomy					X			1

MOTILITY DISORDERS	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVES</b>								
Assessment and management of patients presenting with oesophageal motility disorders								
<b>KNOWLEDGE</b>								
Anatomy		X				X	X	1
Pathophysiology		X				X	X	1
Pathology		X				X	X	1
Complications		X				X	X	1
<b>CLINICAL SKILLS</b>								
History and Examination	X					X	X	1,3
Investigation		X				X	X	1
Decision making		X				X	X	1
Non operative options		X				X	X	1
Postoperative management		X				X	X	1
<b>TECHNICAL SKILLS</b>								
Endoscopy				X				1

IATROGENIC OESOPHAGEAL PERFORATION	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVES</b>								
Assessment and initial management of patients presenting with iatrogenic oesophageal perforation								
<b>KNOWLEDGE</b>								
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
<b>CLINICAL SKILLS</b>								
History and Examination	X					X	X	1,3
Investigation		X				X	X	1
Decision making		X				X	X	1
Non-operative treatment - Pleural drainage; antibiotics; nutritional support		X				X	X	1
Interventional options		X				X	X	1
Referral to specialist unit for definitive management		X			X	X	X	1,3
Postoperative management		X				X	X	1
<b>TECHNICAL SKILLS</b>								
Endoscopy				X				1
Endoscopic interventions incl stent				X				1
Thoracotomy + lavage				X				1
Oesophagectomy				X				1

BOERHAAVE'S	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVES</b>								
Assessment and initial management of patients presenting with Boerhaave's								
<b>KNOWLEDGE</b>								
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
<b>CLINICAL SKILLS</b>								
History and Examination	X					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	X	1,3
Interventional options - primary repair, nutritional support		X				X	X	1
Postoperative management		X				X	X	1
<b>TECHNICAL SKILLS</b>								
Endoscopy				X				1
Thoracotomy + non-resectional management				X				1
Oesophagectomy				X				1

CARCINOMA OF THE OESOPHAGUS	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVES</b>								
Assessment and management of patients presenting with oesophageal carcinoma								
<b>KNOWLEDGE</b>								
<b>Applied Anatomy</b>								
Oesophageal and Oesophago-gastric junctional cancer; lymph node		X				X	X	1
<b>Pathology</b>								
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
<b>CLINICAL SKILLS</b>								
History and Examination	X					X	X	1,3
Investigation - Endoscopy; CT; EUS; PET-CT; Laparoscopy		X				X	X	1
Decision making		X				X	X	1
Assessment of medical comorbidity for radical therapy		X				X	X	1
Nutritional support		X				X	X	1
Chemotherapy - neoadjuvant		X				X	X	1

<b>Radiotherapy</b>									
Combination with chemotherapy		X				X	X		1,3
Difference in treatment for SCC or ACA		X				X	X		1
Other non-operative treatment incl palliation		X				X	X		1
Indications for surgery		X				X	X		1
<b>Postoperative management</b>									
Anastomotic leak; chylothorax; recurrent laryngeal nerve injury		X				X	X		1
Follow-up - Detection of recurrence		X				X	X		1
<b>TECHNICAL SKILLS</b>									
Endoscopy					X				1
Endoscopic palliation incl stenting					X				1
EMR					X				1
<b>Open Oesophagogastratomy</b>									
2 field lymph node dissection					X				1
Transthoracic					X				1
Transhiatal					X				1
MIO					X				1

<b>GASTRIC ULCER</b>	<b>CEX</b>	<b>CBD</b>	<b>DOPS</b>	<b>PBA</b>	<b>MSF</b>	<b>ISB Section 1</b>	<b>ISB Section 2</b>	<b>GMP</b>
<b>OBJECTIVES</b>								
Assessment and management of patients presenting with gastric ulcer								
<b>KNOWLEDGE</b>								
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
<b>CLINICAL SKILLS</b>								
History and Examination	X					X	X	1
Investigation - endoscopy and biopsy		X				X	X	1
Decision making - indications for surgery		X				X	X	1
Operative options		X				X	X	1
Postoperative management		X				X	X	1
<b>TECHNICAL SKILLS</b>								
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

<b>DUODENAL ULCER</b>	<b>CEX</b>	<b>CBD</b>	<b>DOPS</b>	<b>PBA</b>	<b>MSF</b>	<b>ISB Section 1</b>	<b>ISB Section 2</b>	<b>GMP</b>
<b>OBJECTIVES</b>								
Assessment and management of patients with duodenal ulceration and its complications								
<b>KNOWLEDGE</b>								
Clinical presentation		X				X	X	1
Pathophysiology		X				X	X	1
Complications - perf, bleeding, pyloric stenosis		X				X	X	1
<b>CLINICAL SKILLS</b>								
History and Examination	X					X	X	1,3
Investigation - OGD		X				X	X	1
Resuscitation		X				X	X	1
Decision making - indications for operation		X				X	X	1
Operative options		X				X	X	1
Postoperative management		X				X	X	1
<b>TECHNICAL SKILLS</b>								
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

<b>GASTRIC AND DUODENAL POLYPS</b>	<b>CEX</b>	<b>CBD</b>	<b>DOPS</b>	<b>PBA</b>	<b>MSF</b>	<b>ISB Section 1</b>	<b>ISB Section 2</b>	<b>GMP</b>
<b>OBJECTIVES</b>								
Assessment and management of patients presenting with gastric and duodenal polyps								
<b>KNOWLEDGE</b>								
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
<b>CLINICAL SKILLS</b>								
History and Examination	X					X	X	1
Investigation - OGD and polypectomy		X				X	X	1
Decision making		X				X	X	1
Operative options		X				X	X	1
Postoperative management		X				X	X	1
<b>TECHNICAL SKILLS</b>								
Endoscopy					X			1
Endoscopic excision					X			1
EMR					X			1
Laparoscopy					X			1
Open excision					X			1
Partial gastrectomy					X			1

ACUTE PERFORATION	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVES</b>								
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								
<b>KNOWLEDGE</b>								
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
<b>CLINICAL SKILLS</b>								
History and Examination - peritonitis	X					X	X	1,3
Investigation		X				X	X	1
Resuscitation		X				X	X	1
Decision making - comorbidity		X				X	X	1
Operative options - closure, local excision, resection		X				X	X	1
Postoperative management		X				X	X	1
<b>TECHNICAL SKILLS</b>								
Laparoscopy				X				1
Local treatment, ulcer closure or excision				X				1
Partial gastrectomy				X				1
Total gastrectomy				X				1

ACUTE UPPER GI HAEMORRHAGE	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVES</b>								
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								
<b>KNOWLEDGE</b>								
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	
<b>CLINICAL SKILLS</b>								
History and Examination	X					X	X	
Investigation - endoscopy		X				X	X	
Resuscitation - management of hypovolaemic shock		X				X	X	
Decision making - indications for intervention		X				X	X	
Non-operative treatment - sclerotherapy		X				X	X	
Operative options		X				X	X	
Postoperative management - rebleeding		X				X	X	
<b>TECHNICAL SKILLS</b>								
Endoscopy				X				
Endoscopic therapy				X				
Gastrotomy + non-resectional treatment - histology				X				
Partial gastrectomy				X				
Total gastrectomy				X				

ACUTE GASTRIC DILATION	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVES</b>								
Assessment, initial and emergency management of patients presenting with acute gastric dilatation								
<b>KNOWLEDGE</b>								
Applied Anatomy		X				X	X	1
<b>Pathophysiology</b>								
Spontaneous; postsplenectomy		X				X	X	1
Clinical presentation		X				X	X	1
Complications		X				X	X	1
<b>CLINICAL SKILLS</b>								
History and Examination	X					X	X	1,3
Investigation - contrast radiology, CT		X				X	X	1
Resuscitation		X				X	X	1
Decision making		X				X	X	1
Non-operative treatment NG aspiration		X				X	X	1
Referral to specialist unit for definitive management		X				X	X	1,3
Operative options		X				X	X	1
Postoperative management		X				X	X	1
<b>TECHNICAL SKILLS</b>								
NG tube insertion			X					1
Endoscopy				X				1
Gastrectomy				X				1

ACUTE GASTRIC VOLVULUS	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVES</b>								
Assessment and initial management of patients presenting with acute gastric volvulus								
<b>KNOWLEDGE</b>								
Applied Anatomy - para-oesophageal 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



<b>CLINICAL SKILLS</b>								
History and Examination		X				X	X	1,3
Investigation			X			X	X	1
Resuscitation - fluid			X			X	X	1
Decision making - indications for surgery			X			X	X	1
Referral to specialist unit for definitive management			X			X	X	1,3
Operative options - endoscopic, urgent or delayed surgery			X			X	X	1
Postoperative management			X			X	X	1
<b>TECHNICAL SKILLS</b>								
Endoscopy				X				1
Gastropexy				X				1
Hiatus hernia repair				X				1
Total Gastrectomy				X				1

<b>GASTRIC CARCINOMA</b>								
	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVES</b>								
Assessment and management of patients presenting with gastric cancer								
<b>KNOWLEDGE</b>								
<b>Applied Anatomy</b>								
Arterial blood supply; Lymph node tiers		X				X	X	1
<b>Pathology</b>								
Epidemiology; Aetiology - Helicobacter		X				X	X	1
Stage - TNM; pattern of spread		X				X	X	1
<b>Clinical presentation</b>								
Early gastric cancer; advanced gastric cancer		X				X	X	1
<b>Investigation</b>								
Endoscopy, CT, EUS, Laparoscopy		X				X	X	1
<b>Complications</b>								
<b>CLINICAL SKILLS</b>								
History and Examination	X					X	X	1,3
<b>Investigation</b>								
Endoscopy; CT; EUS; laparoscopy		X				X	X	1
<b>Decision making</b>								
Comorbidity assessment; nutritional support		X				X	X	1
<b>Chemotherapy</b>								
Neoadjuvant; adjuvant		X				X	X	1,3
<b>Chemoradiotherapy</b>								
Adjuvant		X				X	X	1,3
<b>Other non-operative treatment incl palliation</b>								
Chemotherapy; pain control		X				X	X	1,3
<b>Interventional options</b>								
Endoscopic; resectional; extended lymphadenectomy		X				X	X	1
<b>Postoperative management</b>								
Anastomotic leak; Duodenal stump disruption		X				X	X	1
<b>TECHNICAL SKILLS</b>								
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

<b>GIST</b>								
	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVES</b>								
Assessment and management of patients presenting with gastrointestinal stromal tumours								
<b>KNOWLEDGE</b>								
<b>Applied Anatomy</b>								
Clinical presentation incidental, bleed		X				X	X	1
Pathology - benign, malignant		X				X	X	1
Complications		X				X	X	1
<b>CLINICAL SKILLS</b>								
History and Examination	X						X	1,3
Investigation - OGD, biopsy, CT		X				X	X	1
Decision making		X				X	X	1,3
Chemotherapy - imatinib		X				X	X	1,3
Operative options - resection, excision		X				X	X	1
Postoperative management		X				X	X	1
<b>TECHNICAL SKILLS</b>								
Endoscopy				X				1
Laparoscopy				X				1
Open excision				X				1
Small bowel resection				X				1
Partial gastrectomy				X				1
Total gastrectomy				X				1

<b>GASTRIC LYMPHOMA</b>								
	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVES</b>								
Assessment and management of patients presenting with gastric lymphoma								
<b>KNOWLEDGE</b>								
<b>Applied Anatomy</b>								
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	

<b>CLINICAL SKILLS</b>								
History and Examination	X							X
Investigation - OGD, CT, PET-CT		X				X	X	
Decision making		X				X	X	
Medical management - chemo, helicobacter eradicaion		X				X	X	
Interventional options		X				X	X	
Postoperative management		X				X	X	
<b>TECHNICAL SKILLS</b>								
Endoscopy					X			
Gastrojejunostomy					X			
Total gastrectomy					X			

<b>MORBID OBESITY</b>								
	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVES</b>								
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.								
<b>KNOWLEDGE</b>								
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
<b>CLINICAL SKILLS</b>								
History and Examination of the Obese patient	X					X	X	1,3
Assessment of the post operative bariatric patient	X	X				X	X	1
Interpretation of Investigations in the obese patient		X				X	X	1
Management decisions for early and late complications of morbid obesity		X				X	X	1
<b>TECHNICAL SKILLS</b>								
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
Revisonal gastric surgery for obesity				X				1
General Surgery for the super morbidly obese patient				X				1

<b>GALLSTONE DISEASE</b>								
	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVES</b>								
Diagnosis and management of acute gallstone disease, including operation								
Acute gall stone disease including acute cholecystitis, empyema, acute biliary colic and cholangitis								
<b>KNOWLEDGE</b>								
Anatomy		X				X	X	1
Pathophysiology		X				X	X	1
Microbiology		X				X	X	1
<b>Complications</b>								
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
<b>Postoperative problems</b>								
Bile duct injury		X				X	X	1
<b>CLINICAL SKILLS</b>								
History and Examination - elective, acute, emergency	X					X	X	1
Investigation - U/S, ERCP, MRCP, CT		X				X	X	1
Resuscitation		X				X	X	1
Decision making		X				X	X	1
Non-operative treatment - ERCP, U/S cholecystotomy		X				X	X	1
Operative options - lap chole		X				X	X	1,2
Postoperative management		X				X	X	1,2
<b>TECHNICAL SKILLS</b>								
Cholecystectomy - lap / open				X				1
Cholecystostomy				X				1
Exploration CBD				X				1
Hepaticodocho-jejunostomy				X				1

<b>ACUTE PANCREATITIS</b>								
	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVES</b>								
Diagnosis and management of most patients with acute pancreatitis								
<b>KNOWLEDGE</b>								
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

<b>CLINICAL SKILLS</b>								
History and Examination	X					X	X	1
Investigation		X				X	X	1
Resuscitation		X				X	X	1
Decision making		X				X	X	1
Non-operative treatment incl nutrition, use of antibiotics		X				X	X	1
Interventional options - ERCP, radiological drainage		X				X	X	1
<b>Postoperative management</b>								
Abscess; Pseudocyst; Haemorrhage		X				X	X	1
<b>TECHNICAL SKILLS</b>								
Cholecystectomy				X				1
Exploration CBD				X				1
ERCP				X				1
Necrosectomy				X				1
Pseudocyst drainage				X				1

<b>CHRONIC PANCREATITIS</b>								
	<b>CEX</b>	<b>CBD</b>	<b>DOPS</b>	<b>PBA</b>	<b>MSF</b>	<b>ISB Section 1</b>	<b>ISB Section 2</b>	<b>GMP</b>
<b>OBJECTIVES</b>								
Assessment and management of patients with chronic pancreatitis								
<b>KNOWLEDGE</b>								
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
<b>CLINICAL SKILLS</b>								
History and Examination	X					X	X	1,3
Investigation		X				X	X	1
Resuscitation		X				X	X	1
Decision making		X				X	X	1
Non-operative treatment incl ERCP		X				X	X	1
Operative options		X				X	X	1
Postoperative management		X				X	X	1
<b>TECHNICAL SKILLS</b>								
ERCP				X				1
Pancreaticojejunostomy				X				1
Pancreaticoduodenectomy				X				1
Distal pancreatectomy				X				1
Hepaticoducho-jejunostomy				X				1
Pseudocyst drainage				X				1

**HEPATOPANCREATICOBILIARY**

<b>OESOPHAGEAL VARICES</b>	<b>CEX</b>	<b>CBD</b>	<b>DOPS</b>	<b>PBA</b>	<b>MSF</b>	<b>ISB Section 1</b>	<b>ISB Section 2</b>	<b>GMP</b>
<b>OBJECTIVES</b>								
Assessment, initial and emergency management of patients presenting with oesophageal varices								
<b>KNOWLEDGE</b>								
Anatomy		X				X	X	1
<b>Pathophysiology</b>								
Aetiology of portal hypertension		X				X	X	1
Clinical presentation		X				X	X	1
Diagnosis		X				X	X	1
<b>Treatment options</b>								
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
<b>Complications</b>								
Child's classification of liver disease		X				X	X	1
<b>CLINICAL SKILLS</b>								
History and Examination	X					X	X	1,3
Investigation - Endoscopic assessment	X					X	X	1
Resuscitation	X					X	X	1
Decision making	X	X				X	X	1
Non-operative treatment - sclerotherapy / banding		X				X	X	1
Referral to specialist unit for definitive management		X			X	X	X	1,3
<b>Operative options</b>								
Porto-caval shunt; Oesophageal transection		X				X	X	1
Postoperative management		X				X	X	1
<b>TECHNICAL SKILLS</b>								
Endoscopy				X				1
Variceal injection			X					1
Balloon tamponade			X					1

<b>GALLSTONE DISEASE</b>	<b>CEX</b>	<b>CBD</b>	<b>DOPS</b>	<b>PBA</b>	<b>MSF</b>	<b>ISB Section 1</b>	<b>ISB Section 2</b>	<b>GMP</b>
<b>OBJECTIVES</b>								
Diagnosis and management of acute gallstone disease, including operation								
Acute gall stone disease including acute cholecystitis, empyema, acute biliary colic and cholangitis								
<b>KNOWLEDGE</b>								
Anatomy		X				X	X	1
Pathophysiology		X				X	X	1
Microbiology		X				X	X	1
<b>Complications</b>								
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
<b>Postoperative problems</b>								
Bile duct injury		X				X	X	1
<b>CLINICAL SKILLS</b>								
History and Examination - elective, acute, emergency	X					X	X	1
Investigation - U/S, ERCP, MRCP, CT		X				X	X	1
Resuscitation		X				X	X	1
Decision making		X				X	X	1
Non-operative treatment - ERCP, U/S cholecystotomy		X				X	X	1
Operative options - lap chole		X				X	X	1,2
Postoperative management		X				X	X	1,2
<b>TECHNICAL SKILLS</b>								
Cholecystectomy - lap / open				X				1
Cholecystostomy				X				1
Exploration CBD				X				1
Hepaticoducho-jejunostomy				X				1

<b>ACUTE PANCREATITIS</b>	<b>CEX</b>	<b>CBD</b>	<b>DOPS</b>	<b>PBA</b>	<b>MSF</b>	<b>ISB Section 1</b>	<b>ISB Section 2</b>	<b>GMP</b>
<b>OBJECTIVES</b>								
Diagnosis and management of most patients with acute pancreatitis								
<b>KNOWLEDGE</b>								
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
<b>CLINICAL SKILLS</b>								
History and Examination	X					X	X	1
Investigation		X				X	X	1
Resuscitation		X				X	X	1

Decision making		X				X	X	1
Non-operative treatment incl nutrition, use of antibiotics		X				X	X	1
Interventional options - ERCP, radiological drainage		X				X	X	1
<b>Postoperative management</b>								
Abscess; Pseudocyst; Haemorrhage		X				X	X	1
<b>TECHNICAL SKILLS</b>								
Cholecystectomy					X			1
Exploration CBD					X			1
ERCP					X			1
Necrosectomy					X			1
Pseudocyst drainage					X			1

<b>CHRONIC PANCREATITIS</b>								
	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVES</b>								
Assessment and management of patients with chronic pancreatitis								
<b>KNOWLEDGE</b>								
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
<b>CLINICAL SKILLS</b>								
History and Examination	X					X	X	1,3
Investigation		X				X	X	1
Resuscitation		X				X	X	1
Decision making		X				X	X	1
Non-operative treatment incl ERCP		X				X	X	1
Operative options		X				X	X	1
Postoperative management		X				X	X	1
<b>TECHNICAL SKILLS</b>								
ERCP				X				1
Pancreaticojejunostomy				X				1
Pancreaticoduodenectomy				X				1
Distal pancreatectomy				X				1
Hepaticoducho-jejunostomy				X				1
Pseudocyst drainage				X				1

<b>PANCREATIC CANCER / PERIAMPULLARY CANCER</b>								
	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVES</b>								
Assessment and management of patients with pancreatic and ampullary cancer								
<b>KNOWLEDGE</b>								
Applied Anatomy		X				X	X	1
<b>Pathophysiology</b>								
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
<b>CLINICAL SKILLS</b>								
History and Examination	X					X	X	1,3
Investigation - CT, MRCP, MRI, EUS		X				X	X	
<b>Decision making</b>								
Comorbidity; Nutritional assessment		X				X	X	1
Non-operative treatment incl palliation, nutrition		X				X	X	1
Interventional options eg ERCP, PTC		X				X	X	1
Postoperative management		X				X	X	1
<b>TECHNICAL SKILLS</b>								
Pancreaticoduodenectomy				X				1
Distal pancreatectomy				X				1
ERCP				X				1
Biliary bypass				X				1
Gastroenterostomy				X				1

<b>CYSTIC TUMOURS</b>								
	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVES</b>								
Assessment and management of patients with cystic tumours of the pancreas								
<b>KNOWLEDGE</b>								
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
<b>CLINICAL SKILLS</b>								
History and Examination	X					X	X	1,3
Investigation - CT, MRCP, EUS		X				X	X	1
Decision making		X			X	X	X	1
Non-operative treatment incl palliation, nutrition		X				X	X	1
Interventional options eg ERCP, PTC		X				X	X	1
Postoperative management		X				X	X	1

<b>TECHNICAL SKILLS</b>								
Pancreaticoduodenectomy					X			1
Distal pancreatectomy					X			1
ERCP					X			1
Biliary bypass					X			1
Gastroenterostomy					X			1

<b>NEUROENDOCRINE TUMOURS</b>								
	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVES</b>								
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								
<b>KNOWLEDGE</b>								
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
<b>CLINICAL SKILLS</b>								
History and Examination	X					X	X	1,3
Investigation - CT, EUS, MRCP		X				X	X	1
Decision making		X			X	X	X	1
Non-operative treatment incl palliation, nutrition		X				X	X	1
Interventional options eg ERCP, PTC		X				X	X	1
Postoperative management		X				X	X	1
<b>TECHNICAL SKILLS</b>								
Pancreaticoduodenectomy				X				1
Distal pancreatectomy				X				1
Enucleation				X				1
ERCP				X				1
Biliary bypass				X				1
Gastroenterostomy				X				1

<b>INTRADUCTAL PAPILLARY MUCINOUS NEOPLASMS</b>								
	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVES</b>								
Assessment and management of IPMN								
<b>KNOWLEDGE</b>								
Applied Anatomy		X				X	X	1
Pathophysiology		X				X	X	1
Pathology		X				X	X	1
Complications		X				X	X	1
<b>CLINICAL SKILLS</b>								
History and Examination	X					X	X	1,3
Investigation		X				X	X	1
Decision making		X				X	X	1
Non-operative treatment incl palliation, nutrition		X				X	X	1
Interventional options eg ERCP, PTC		X				X	X	1
Postoperative management		X				X	X	1
<b>TECHNICAL SKILLS</b>								
Pancreaticoduodenectomy				X				1
Distal pancreatectomy				X				1
Total pancreatectomy				X				1
ERCP				X				1
Biliary bypass				X				1
Gastroenterostomy				X				1

<b>PANCREATIC TRAUMA</b>								
	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVES</b>								
Assessment and management of patients with pancreatic trauma								
<b>KNOWLEDGE</b>								
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
<b>CLINICAL SKILLS</b>								
History and Examination	X					X	X	1,3
Investigation - CT, MRI, laparoscopy		X				X	X	1
Resuscitation		X				X	X	1
Decision making		X			X	X	X	1,3
Non-operative treatment		X				X	X	1
Interventional options eg ERCP, radiological drainage		X				X	X	1
Postoperative management - fistula, nutritional support		X				X	X	1

TECHNICAL SKILLS								
Cholecystectomy								1
Debridement & drainage								1
Pancreaticojejunostomy								1
Pancreaticoduodenectomy								1
Distal pancreatectomy								1
Pseudocyst drainage								1

LIVER METASTASES								
	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVES</b>								
Assessment and management of liver metastases.								
<b>KNOWLEDGE</b>								
Applied Anatomy - liver segments		X				X	X	1
Pathophysiology - liver function		X				X	X	1
<b>Pathology</b>								
Solitary; multiple; extrahepatic synchronous disease; colorectal; non-colorectal		X				X	X	1
Clinical Presentation		X				X	X	1
Complications		X				X	X	1
<b>CLINICAL SKILLS</b>								
History and Examination	X					X	X	1,3
Investigation - CT, PET-CT, MRI		X				X	X	1
Decision making including scheduling treatment		X			X	X	X	1,3
Non-operative treatment incl chemotherapy and biological therapy		X				X	X	1
Interventional options e.g. ablation		X				X	X	1
Postoperative management		X				X	X	1
<b>TECHNICAL SKILLS</b>								
Major hepatectomy + intra-op ultrasound				X				1
Extended hepatectomy				X				1
Peripheral wedge or segmental resection				X				1

PRIMARY LIVER CANCER								
	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVES</b>								
Assessment and management of primary liver cancer								
<b>KNOWLEDGE</b>								
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
<b>CLINICAL SKILLS</b>								
History and Examination	X					X	X	1,3
Investigation		X				X	X	
Decision making		X			X	X	X	1,3
Assessment and management of liver insufficiency, Child's classification		X				X	X	1
Non-operative treatment incl chemoembolisation and biological therapy		X				X	X	1
Interventional options eg ablation		X				X	X	1
Postoperative management		X				X	X	1
<b>TECHNICAL SKILLS</b>								
Major hepatectomy				X				1
Peripheral wedge or segmental resection				X				1

CHOLANGIOCARCINOMA AND GALLBLADDER CANCER								
	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVES</b>								
Assessment and management of cholangiocarcinoma and gallbladder cancer								
<b>KNOWLEDGE</b>								
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
<b>CLINICAL SKILLS</b>								
History and Examination	X					X	X	1,3
Investigation, ERCP, MRCP, ST, MRU		X				X	X	1
Decision making		X			X	X	X	1,3
Non-operative treatment incl PDT, brachytherapy		X				X	X	1
Interventional options eg stenting		X				X	X	1
Postoperative management		X				X	X	1
<b>TECHNICAL SKILLS</b>								
Extended hepatectomy				X				1
Central liver resection				X				1
Hepatic artery lymphadenectomy				X				1
Hepaticoduodenostomy				X				1

BENIGN AND CYSTIC TUMOURS								
	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVES</b>								
Assessment and management of benign and cystic tumours of the liver								
<b>KNOWLEDGE</b>								
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

<b>CLINICAL SKILLS</b>								
History and Examination	X					X	X	1,3
Investigation, CT, MRI		X				X	X	1
Decision making		X		X		X	X	1,3
Non operative options eg medical treatment of hydatid disease		X				X	X	1
Interventional options eg embolisation		X				X	X	1
Postoperative management		X				X	X	1
<b>TECHNICAL SKILLS</b>								
Fenestration				X				1
Liver resection				X				1

<b>LIVER TRAUMA</b>								
	<b>CEX</b>	<b>CBD</b>	<b>DOPS</b>	<b>PBA</b>	<b>MSF</b>	<b>ISB Section 1</b>	<b>ISB Section 2</b>	<b>GMP</b>
<b>OBJECTIVES</b>								
Diagnosis and early management of liver trauma including laparotomy and liver packing or resection								
<b>KNOWLEDGE</b>								
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
<b>CLINICAL SKILLS</b>								
History and Examination	X					X	X	1,3
Investigation		X				X	X	1
Resuscitation		X				X	X	1
Decision making		X			X	X	X	1,3
Non-operative treatment		X				X	X	1
Interventional options eg hepatic artery embolisation, laparotomy		X				X	X	1
Postoperative management		X				X	X	1
<b>TECHNICAL SKILLS</b>								
Salvage surgery eg packing				X				1
Debridement & hepatectomy				X				1



**COLORECTAL**

<b>HAEMORRHOIDS</b>	<b>CEX</b>	<b>CBD</b>	<b>DOPS</b>	<b>PBA</b>	<b>MSF</b>	<b>ISB Section 1</b>	<b>ISB Section 2</b>	<b>GMP</b>
<b>OBJECTIVES</b>								
Competency in the diagnosis and all medical and surgical treatments for haemorrhoids								
<b>KNOWLEDGE</b>								
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
<b>CLINICAL SKILLS</b>								
Diagnosis of thrombosed external haemorrhoids, internal haemorrhoids, skin tags	X	X				X	X	1
Diagnosis and treatment of complications of office treatment of haemorrhoids – pain, bleeding, sepsis	X	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	X	1
Ability to manage haemorrhoids in IBD, pregnancy, HIV, Coagulopathy, portal hypertension		X				X	X	1
<b>TECHNICAL SKILLS</b>								
Haemorrhoids-OP treatment(injection/banding/infrared)			X					1
Haemorrhoidectomy-operative				X				1
Haemorrhoidectomy-stapled				X				1

<b>ANAL FISSURE</b>	<b>CEX</b>	<b>CBD</b>	<b>DOPS</b>	<b>PBA</b>	<b>MSF</b>	<b>ISB Section 1</b>	<b>ISB Section 2</b>	<b>GMP</b>
<b>OBJECTIVE</b>								
Competency in the diagnosis and the medical and surgical treatment of anal fissure								
<b>KNOWLEDGE</b>								
Aetiology of anal fissure		X				X	X	1
Anatomical location of a classic anal fissure		X				X	X	1
<b>CLINICAL SKILLS</b>								
Assessment of the signs and symptoms of anal fissure	X					X	X	1
Arrange the nonoperative management of anal fissure, including indications, contraindications, and complications of stool modifications/softeners, topical anaesthetics, topical pharmacology, botulinum toxin		X				X	X	1
Indications, contraindications, and complications of the following: lateral internal sphincterotomy anal stretch, anal advancement flap		X				X	X	1
Pre and postop care of lateral sphincterotomy, anal advancement flap for fissure		X				X	X	1
Treat complications resulting from operations; persistent fissure, incontinence, stenosis, ?key-hole? deformity		X				X	X	1
<b>TECHNICAL SKILLS</b>								
Lateral sphincterotomy				X				1
Anal advancement flap for fissure/stenosis				X				1

<b>ABSCESS AND FISTULA</b>	<b>CEX</b>	<b>CBD</b>	<b>DOPS</b>	<b>PBA</b>	<b>MSF</b>	<b>ISB Section 1</b>	<b>ISB Section 2</b>	<b>GMP</b>
<b>OBJECTIVE</b>								
Competency in the diagnosis and the medical and surgical treatment of abscess and fistula-in-ano								
<b>KNOWLEDGE</b>								
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
<b>CLINICAL SKILLS</b>								
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	X	1
Management of anorectal abscess including preoperative and postoperative care and the appropriate procedure based on anatomical spaces		X				X	X	1
Treatment options for fistula-in-ano including fibrin glue / fistula plug		X				X	X	1
Modify therapy for: necrotising fasciitis/Fournier's gangrene, Leukaemia, other immunocompromised patients, inflammatory bowel disease		X				X	X	1
Manage rectovaginal fistula with regard to classification, preoperative evaluation, and treatment of rectovaginal fistula, based on location and aetiology		X				X	X	1
Arrange pre and postop care for rectovaginal fistula due to obstetric injury		X				X	X	1
Manage rectourethral fistula depending on location and aetiology		X				X	X	1
<b>TECHNICAL SKILLS</b>								
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

<b>HIDRADENITIS SUPPURATIVA</b>	<b>CEX</b>	<b>CBD</b>	<b>DOPS</b>	<b>PBA</b>	<b>MSF</b>	<b>ISB Section 1</b>	<b>ISB Section 2</b>	<b>GMP</b>
<b>OBJECTIVE</b>								
Competency in the diagnosis and management of hidradenitis suppurativa								
<b>Knowledge</b>								
Pathophysiology of hidradenitis suppurativa						X		1
<b>Clinical skills</b>								
Assess the symptoms and signs of hidradenitis suppurativa	X	X				X	X	1,3
Manage hidradenitis suppurativa by both medical and surgical means		X				X	X	1

<b>PILONIDAL DISEASE</b>	<b>CEX</b>	<b>CBD</b>	<b>DOPS</b>	<b>PBA</b>	<b>MSF</b>	<b>ISB Section 1</b>	<b>ISB Section 2</b>	<b>GMP</b>
<b>OBJECTIVE</b>								
Competency in the management of pilonidal disease.								
<b>KNOWLEDGE</b>								
Pathophysiology of pilonidal disease		X				X	X	1

CLINICAL SKILLS								
Assess the symptoms and signs of pilonidal disease: abscess, sinus		X				X	X	1,3
Surgical management of pilonidal disease		X				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								CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP	
OBJECTIVE																
Competency in the management of anal stenosis.																
KNOWLEDGE																
Aetiology									X				X			1
CLINICAL SKILLS																
Arrange nonoperative management									X				X	X		1
Operative management of anal stenosis including division of stricture and flap procedures									X				X	X		1
TECHNICAL SKILLS											X					
Anal advancement flap for fissure/stenosis																1

PRURITUS ANI								CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP	
OBJECTIVE																
Competency in the management of pruritus 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 pruritus ani									X				X	X		1

SEXUALLY TRANSMITTED DISEASE								CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP	
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	X		1,3
Diagnosis and treatment of HIV, syphilis, gonorrhoea, chlamydia, herpes									X				X	X		1
Medical (topical chemicals) and surgical treatment options for condylomata acuminata									X				X	X		1
TECHNICAL SKILLS																
Anal skin tags/warts-excision											X					1

VASCULAR MALFORMATIONS								CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP	
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	X		1,3
Manage the patient with regard to indications for intervention and the operative and nonoperative management of angiodysplasia									X				X	X		1
Arrange radiologic and endoscopic evaluation of patients with haemangiomas									X				X	X		1
Arrange nonoperative and operative management, based on location									X				X	X		1
TECHNICAL SKILLS																
Colonoscopy-diagnostic											X					1
Colonoscopy-therapeutic											X					1

DIVERTICULAR DISEASE								CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP	
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	X		1,3
Arrange appropriate diagnostic studies in suitable sequence in the evaluation of both acute and chronic colonic diverticular disease									X				X	X		1
Medical and dietary management of colonic diverticular disease									X				X	X		1
Medical management for acute diverticulitis									X				X	X		1
Preoperative assessment including the indications for surgery, surgical procedures, and complications for acute diverticulitis									X				X	X		1
Choose appropriate surgical procedures including CT guided drainage for the management of acute diverticulitis									X				X	X		1
Perform laparoscopy and washout with drainage for appropriate patients											X		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	X		1
Appropriate surgical procedures for dealing with complications (fistula, stricture, recurrent episodes) of acute diverticulitis									X		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	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	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
Competency in the diagnosis and treatment of colonic volvulus								
<b>KNOWLEDGE</b>								
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
<b>CLINICAL SKILLS</b>								
Recognise the clinical patterns, presenting symptoms, physical findings, and natural history of colonic volvulus based upon its site	X	X				X	X	1,3
Arrange diagnostic studies in appropriate sequence		X				X	X	1
Appropriate operative procedures for volvulus depending on site		X		X		X	X	1
<b>TECHNICAL SKILLS</b>								
Sigmoidoscopy-rigid			X					1
Sigmoidoscopy-flexible				X				1
Colonoscopy-diagnostic				X				1
Colonoscopy-therapeutic - insertion of PEC button				X				1

RECTAL BLEEDING								
OBJECTIVE	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
Ability to appropriately investigate rectal bleeding								
<b>KNOWLEDGE</b>								
Aetiology of lower GI bleeding		X				X	X	1
<b>CLINICAL SKILLS</b>								
Arrange appropriate evaluation of the patient based on age and other medical conditions	X	X				X	X	1

MASSIVE LOWER GI BLEEDING								
OBJECTIVE	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
Management of massive lower GI tract bleeding								
<b>KNOWLEDGE</b>								
Aetiology of massive lower GI bleeding		X				X	X	1
Utility, specificity and sensitivity of colonoscopy, angiography and radio-isotope 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
<b>CLINICAL SKILLS</b>								
Assess haemodynamic stability and outline a resuscitation plan	X	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	X	1
Endoscopic treatment of lower GI bleeding including coagulation, injection therapy and laser ablation		X		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	X	1
Intraoperative evaluation and management of persistent massive lower GI bleeding without an identified site		X		X		X	X	1
Manage postoperative lower GI bleeding		X				X	X	1
<b>TECHNICAL SKILLS</b>								
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	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
Management of endometriosis affecting the GI tract with the gynaecologists								
<b>KNOWLEDGE</b>								
Pathophysiology of endometriosis		X				X	X	1
Indications for intervention and the operative and non-operative management of endometriosis		X				X	X	1
<b>CLINICAL SKILLS</b>								
Recognition of the clinical presentation and the endoscopic and laparoscopic findings of endometriosis	X	X					X	1
<b>TECHNICAL SKILLS</b>								
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	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
Competency in the appropriate diagnosis and treatment of colon trauma								
<b>KNOWLEDGE</b>								
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	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	X	1
Manage a patient, either operatively or non-operatively with colonic trauma due to colonoscopic perforation or laparoscopic perforation		X		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	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
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	X	1,3
Surgical management of rectal trauma including drainage, faecal diversion, rectal washout, primary repair		X		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	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
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	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	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
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	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	X	1

COLORECTAL NEOPLASIA								
OBJECTIVE	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
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): clinical 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
<b>Management of colorectal cancer</b>								
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
<b>CLINICAL SKILLS</b>								
Recognise the clinical signs and symptoms of colorectal cancer	X	X				X	X	1,3
Manage malignant change within an adenomatous polyp		X				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	X	1
Extended resections to include total abdominal colectomy		X		X		X	X	1
<b>TECHNICAL SKILLS</b>								
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

<b>RECTAL CANCER</b>	<b>CEX</b>	<b>CBD</b>	<b>DOPS</b>	<b>PBA</b>	<b>MSF</b>	<b>ISB Section 1</b>	<b>ISB Section 2</b>	<b>GMP</b>
<b>OBJECTIVES</b>								
Management of patients with rectal cancer								
<b>KNOWLEDGE</b>								
<b>Indications and contraindications, operative technique, pre and postop care, complications and outcomes for:</b>								
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
<b>CLINICAL SKILLS</b>								
Recognise the clinical signs and symptoms of rectal cancer	X	X				X	X	1,3
Familiarity with endoscopic diagnosis and CT and MRI imaging approaches		X				X	X	1
Indications for transanal treatment		X				X	X	1
<b>TECHNICAL SKILLS</b>								
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

<b>DETECTION AND TREATMENT OF RECURRENT AND METACHRONOUS COLORECTAL CANCER</b>	<b>CEX</b>	<b>CBD</b>	<b>DOPS</b>	<b>PBA</b>	<b>MSF</b>	<b>ISB Section 1</b>	<b>ISB Section 2</b>	<b>GMP</b>
<b>OBJECTIVES</b>								
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								
<b>KNOWLEDGE</b>								
Patterns of recurrence		X				X	X	1
Detection of recurrence using CEA, colonoscopy and imaging		X				X	X	1
Pain Management, including programmes for intractable pain		X				X	X	1
<b>CLINICAL SKILLS</b>								
Treatment of recurrent colorectal cancer: natural history, chemotherapy, resection, local ablation		X				X	X	1
Treatment of pelvic recurrence with radiation, chemotherapy, resection		X				X	X	1
Manage Carcinomatosis: with bowel obstruction, with ureteral obstruction		X				X	X	1
Palliative care		X				X	X	1
<b>TECHNICAL SKILLS</b>								
Pelvic malignancy - reoperation				X				1

<b>MISCELLANEOUS MALIGNANT LESIONS</b>	<b>CEX</b>	<b>CBD</b>	<b>DOPS</b>	<b>PBA</b>	<b>MSF</b>	<b>ISB Section 1</b>	<b>ISB Section 2</b>	<b>GMP</b>
<b>OBJECTIVES</b>								
Ability to manage more unusual tumours of the colon and rectum								
<b>CLINICAL SKILLS</b>								
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	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVES</b>								
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								
<b>KNOWLEDGE</b>								
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
<b>CLINICAL SKILLS</b>								
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	X	1,3
Squamous cell carcinoma: clinical features, differential diagnosis, surgical management by local excision, chemoradiotherapy and abdominoperineal resection		X				x	X	1
Basal cell carcinoma: clinical features, differential diagnosis, management		X				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	X	1
Paget's disease: theories of histogenesis, clinical features, management		X				x	X	1
Buschke-Lowenstein tumour: clinical presentation and course, treatment options		X				x	X	1
Treatment of epidermoid carcinomas based on stage: local excision, chemoradiotherapy, abdominoperineal resection, inguinal node management		X				x	X	1
<b>TECHNICAL SKILLS</b>								
Anal tumour-excision				X				1
Rectum-AP excision				X				1

PRESACRAL LESIONS	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVES</b>								
Ability to manage presacral lesions								
<b>CLINICAL SKILLS</b>								
Presentation, differential diagnosis, diagnostic evaluation and treatment of congenital lesions: epidermoid cysts, teratoma, anterior sacral meningocele, rectal duplication	X	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	X	1

FAECAL INCONTINENCE	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVES</b>								
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								
<b>KNOWLEDGE</b>								
<b>Epidemiology</b>								
Classification of the various types of incontinence, their incidence and their pathophysiology		X				X	X	1
<b>Evaluation</b>								
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
<b>CLINICAL SKILLS</b>								
Take a directed history to differentiate types of incontinence	X					X	X	1,3
Perform a physical examination to differentiate types of incontinence	X					X	X	1,3
Identify and interpret anorectal physiology tests		X				X	X	1
Outline a non-operative bowel management plan incorporating : dietary measures, medications, enemas, perineal skin care, anal plug		X				X	X	1
Make a treatment plan for a patient with incontinence, including knowledge of side-effects		X				X	X	1
Select patients for operation according to the physical and laboratory findings		X				X	X	1
Select type of operative repair		X				X	X	1
Select patients for temporary and permanent faecal diversion		X				X	X	1
<b>TECHNICAL SKILLS</b>								
Anal sphincter repair including postanal repair, anterior sphincter repair				X				1
Anal sphincter - artificial sphincter/sacral nerve stimulation				X				1

RECTAL PROLAPSE	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVES</b>								
Competency in the management of all patients with rectal prolapse								
<b>KNOWLEDGE</b>								
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
<b>CLINICAL SKILLS</b>								
Identify the associated anatomical findings of rectal prolapse and its clinical presentation including functional disturbances and physical findings	X	X				X	X	1,3
Differentiate between mucosal prolapse, prolapsing internal haemorrhoids and rectal prolapse	X	X				X	X	1,3
Appropriate management of incarcerated and strangulated rectal prolapse		X				X	X	1
Manage constipation and incontinence in the context of rectal prolapse		X				X	X	1

Perform operation for rectal prolapse - perineal or abdominal; open or laparoscopic		X		X		X	X	1
Manage a patient with recurrent rectal prolapse		X				X	X	1
<b>TECHNICAL SKILLS</b>								
Prolapse-abdominal rectopexy				X				
Prolapse -rectopexy + sigmoid resection				X				
Prolapse-perineal repair				X				
STARR Procedure				X				
Ventral mesh rectopexy				X				

<b>SOLITARY RECTAL ULCER</b>	<b>CEX</b>	<b>CBD</b>	<b>DOPS</b>	<b>PBA</b>	<b>MSF</b>	<b>ISB Section 1</b>	<b>ISB Section 2</b>	<b>GMP</b>
<b>OBJECTIVES</b>								
Ability to diagnose and manage solitary ulcer syndrome								
<b>Knowledge</b>								
Understand the associated pelvic floor disorder		X				X	X	1
<b>CLINICAL SKILLS</b>								
Recognise the clinical presentation, endoscopic and histological findings in a patient with solitary rectal ulcer	X	X				X	X	1,3
Utilise appropriate medica/surgical treatment options		X				X	X	1

<b>CONSTIPATION</b>	<b>CEX</b>	<b>CBD</b>	<b>DOPS</b>	<b>PBA</b>	<b>MSF</b>	<b>ISB Section 1</b>	<b>ISB Section 2</b>	<b>GMP</b>
<b>OBJECTIVE</b>								
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								
<b>KNOWLEDGE</b>								
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
<b>CLINICAL SKILLS</b>								
Take a directed history for a patient with constipation and perform a directed physical examination	X					X	X	1,3
Arrange a treatment plan based on endoscopic, radiological and physiology tests: defaecating proctogram, transit studies, anorectal manometry, EMG, balloon expulsion, contrast enema, endoscopy		X				X	X	1
Identify melanosis coli on endoscopy and discuss its significance		X		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	X	1
Management of anismus: medical management, biofeedback, botulinum toxin, surgery		X				X	X	1
Manage short segment/adult Hirschsprung's disease		X				X	X	1
Recognise the clinical presentation of symptomatic rectocele		X				X	X	1
Diagnosis and both non-operative and operative management of enterocele and sigmoidocele		X				X	X	1
Evaluation and management of recurrent constipation after colectomy		X				X	X	1
Evaluate a patient with suspected colonic pseudo-obstruction	X	X				X	X	1
Manage a patient with colonic pseudo-obstruction by medical or surgical means		X		X		X	X	1
<b>TECHNICAL SKILLS</b>								
Rectocele repair				X				1

<b>IRRITABLE BOWEL SYNDROME</b>	<b>CEX</b>	<b>CBD</b>	<b>DOPS</b>	<b>PBA</b>	<b>MSF</b>	<b>ISB Section 1</b>	<b>ISB Section 2</b>	<b>GMP</b>
<b>OBJECTIVE</b>								
Competency in the management of irritable bowel syndrome								
<b>CLINICAL SKILLS</b>								
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

<b>CHRONIC RECTAL PAIN SYNDROME</b>	<b>CEX</b>	<b>CBD</b>	<b>DOPS</b>	<b>PBA</b>	<b>MSF</b>	<b>ISB Section 1</b>	<b>ISB Section 2</b>	<b>GMP</b>
<b>OBJECTIVE</b>								
Competency in the management of chronic rectal pain syndromes								
<b>KNOWLEDGE</b>								
Differential diagnosis for rectal pain including levator ani syndrome, proctalgia fugax, chronic idiopathic pelvic pain, coccygodynia		X				X	X	1
<b>CLINICAL SKILLS</b>								
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	X	1,3

<b>INFLAMMATORY BOWEL DISEASE - GENERAL</b>	<b>CEX</b>	<b>CBD</b>	<b>DOPS</b>	<b>PBA</b>	<b>MSF</b>	<b>ISB Section 1</b>	<b>ISB Section 2</b>	<b>GMP</b>
<b>OBJECTIVES</b>								
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								
<b>KNOWLEDGE</b>								
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
<b>Clinical manifestations</b>								
The criteria for severity of disease as defined by Crohn's disease activity index and Truelove classification		X				X	X	1

<b>Differential Diagnosis</b>								
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
<b>Reproduction and Inflammatory Bowel Disease</b>								
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
<b>CLINICAL SKILLS</b>								
Recognise and compare the clinical pattern, presenting symptoms, physical findings and natural history of ulcerative colitis and Crohn's disease	X	X				X	X	1,3
The extraintestinal manifestations of IBD		X				X	X	1
Diagnostic assessment for inflammatory bowel disease to exclude other colitides		X				X	X	1

<b>ULCERATIVE COLITIS</b>	<b>CEX</b>	<b>CBD</b>	<b>DOPS</b>	<b>PBA</b>	<b>MSF</b>	<b>ISB Section 1</b>	<b>ISB Section 2</b>	<b>GMP</b>
<b>OBJECTIVES</b>								
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								
<b>KNOWLEDGE</b>								
<b>Medical management</b>								
The mechanism of action, indication, appropriate dosage, side effects, and toxicity of the drugs used for the treatment of ulcerative colitis: aminosaliclates, 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
<b>Surgical Management</b>								
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 colitis		X				X	X	1
<b>CLINICAL SKILLS</b>								
Recognise the presentation and manage proctitis, left-sided colitis, extensive colitis, severe acute colitis, toxic megacolon	X	X				X	X	1,3
Joint management of a patient unresponsive to initial treatment		X			X	X	X	1,3
Organise surveillance and interpret biopsy results of dysplasia		X				X	X	1
Indications and contraindications, operative technique, postoperative care, functional results, and complications of the operations for ulcerative colitis		X				X	X	1
<b>Postoperative management</b>								
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	X	1
Follow-up for retained rectum after colectomy		X				X	X	1
<b>TECHNICAL SKILLS</b>								
Colectomy-total+ileostomy				X				1
Colectomy-total+ileorectal anastomosis				X				1
Rectum-panproctocolectomy+ileostomy				X				1
Ileoanal anastomosis+creation of pouch				X				1

<b>CROHN'S DISEASE</b>	<b>CEX</b>	<b>CBD</b>	<b>DOPS</b>	<b>PBA</b>	<b>MSF</b>	<b>ISB Section 1</b>	<b>ISB Section 2</b>	<b>GMP</b>
<b>OBJECTIVES</b>								
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								
<b>KNOWLEDGE</b>								
<b>Medical Management</b>								
The mechanism of action, indication, appropriate dosage, side effects, and toxicity of the drugs used for the treatment of Crohn's disease: aminosaliclates, 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
<b>CLINICAL SKILLS</b>								
Treatment specific to the site of involvement in a patient with Crohn's disease		X				X	X	X
Medical management of a patient unresponsive to initial treatment		X				X	X	X
Organise surveillance and interpret biopsy results of dysplasia		X				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	X
Indications and contraindications, operative technique, postoperative care, functional results, risk of recurrence, and complications of operations for Crohn's disease		X				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	X
<b>TECHNICAL SKILLS</b>								
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-ileocaectomy				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	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVES</b>								
Competency in the management of ischaemic colitis								
<b>KNOWLEDGE</b>								
Vascular anatomy of the colon		X				X	X	1
The aetiology of acute colonic ischemia		X				X	X	1
<b>CLINICAL SKILLS</b>								
Recognise the clinical presentation of ischaemic colitis	X	X				X	X	1
Recognise the natural history, diagnosis, and be able to manage ischaemic colitis		X				X	X	1
Recognise and manage ischaemic colitis after abdominal aortic aneurysm repair		X				X	X	1,3

RADIATION COLITIS	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVE</b>								
Competency in the management of radiation bowel disease								
<b>KNOWLEDGE</b>								
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
<b>CLINICAL SKILLS</b>								
Complications of radiotherapy: fistula, obstruction, malabsorption, necrosis, haemorrhage		X				X	X	1
Arrange local therapy for radiation proctitis		X				X	X	1,3

INFECTIOUS COLITIS	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVES</b>								
Diagnosis and management of infectious colitis in consultation with infectious disease physicians								
<b>KNOWLEDGE</b>								
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	X	1

MISCELLANEOUS COLITIDES	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVES</b>								
Competency in the management of the less common colitides								
<b>CLINICAL SKILLS</b>								
Manage the following: diversion colitis, neutropenic enterocolitis, collagen-vascular colitis, microscopic colitis	X	X		X		X	X	1

STOMAS	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVES</b>								
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								
<b>KNOWLEDGE</b>								
<b>Indication for stoma</b>								
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
<b>Stoma management</b>								
Stoma appliances, and appropriate selection		X				X	X	1
Indications, contraindications and complications for stoma irrigation		X				X	X	1
<b>Stoma Physiology</b>								
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 absorption		X				X	X	1
<b>CLINICAL SKILLS</b>								
<b>Preoperative evaluation</b>								
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	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	X	1,3
<b>Stoma creation and closure</b>								
Stoma construction and closure				X		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	X	1

<b>Postoperative Care</b>								
Appreciate the normal postoperative course for colostomy and ileostomy function		X				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	X	1
<b>Complications</b>								
Recognise and manage high-output ileostomy		X				X	X	1
Recognise parastomal skin irritation of significance, list a differential diagnosis, and make recommendations for appropriate management	X	X				X	X	1
Manage ileostomy and colostomy prolapse		X				X	X	1
Management of parastomal hernia		X				X	X	1
Recognise and manage skin conditions associated with stomas		X				X	X	1
Recognise and manage ileostomy food obstruction		X				X	X	1
<b>Stoma Management</b>								
Early postoperative management of conventional stoma		X				X	X	1
Advise on various skin barriers and accessory products available for the management of stomas	X	X				X	X	1,3
Management of a retracted stoma		X				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	X	1,3
Appropriately manage fluid and electrolyte abnormalities		X				X	X	1
<b>Patient education and counselling</b>								
Demonstrate stoma bag emptying, stoma bag changing, management of leakage	X	X						1
<b>TECHNICAL SKILLS</b>								
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**

<b>BREAST ASSESSMENT</b>	<b>CEX</b>	<b>CBD</b>	<b>DOPS</b>	<b>PBA</b>	<b>MSF</b>	<b>ISB Section 1</b>	<b>ISB Section 2</b>	<b>GMP</b>
<b>OBJECTIVES</b>								
Understand principle features of breast anatomy, physiology								
Assess and manage patients presenting with breast symptoms								
<b>KNOWLEDGE</b>								
<b>Normal anatomy</b>								
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
<b>Embryology / developmental abnormalities</b>								
Accessory nipples, hypo/hypertrophy, asymmetry		X				X	X	1
<b>Breast and endocrine physiology</b>								
<b>Endogenous hormones</b>								
Puberty / menarche		X				X	X	1
Pregnancy		X				X	X	1
Lactation		X				X	X	1
Menopause		X				X	X	1
<b>Exogenous hormones</b>								
OCP, HRT, SERMS etc		X				X	X	1
<b>Breast assessment</b>								
<b>Triple assessment</b>								
Understand indications,use, interpretation		X				X	X	1
Diagnostic grid/concordance		X				X	X	1
<b>Imaging:</b>								
Ultrasound, mammography: standard views		X				X	X	1
<b>Pathology</b>								
Cytology - FNAC		X				X	X	1
Histology		X				X	X	1
Core biopsy		X				X	X	1
Punch biopsy		X				X	X	1
<b>Extended assessment</b>								
Additional mammography views		X				X	X	
MRI		X				X	X	
Vacuum biopsy		X				X	X	
Surgical biopsy		X				X	X	
<b>Management</b>								
Record findings - diagnostic grid		X				X	X	
Interpret findings		X				X	X	
Develop plan		X				X	X	
Communicate findings and plan		X				X	X	
<b>CLINICAL SKILLS</b>								
History	X					X	X	1,3
<b>Examination</b>								
Breast, nodal basin, relevant systems	X					X	X	1,3
<b>Investigation</b>								
Triple assessment	X	X				X	X	1
<b>Imaging techniques</b>								
Ultrasound interpretation	X	X				X	X	1
Mammography interpretation	X	X				X	X	1
<b>TECHNICAL SKILLS</b>								
<b>Fine needle aspiration</b>								
Cytology; cyst/abscess drainage			X					1
Image guided			X					1
<b>Core biopsy</b>								
Clinical			X					1
Image guided			X					1
Punch biopsy			X					1

<b>BENIGN BREAST CONDITIONS</b>	<b>CEX</b>	<b>CBD</b>	<b>DOPS</b>	<b>PBA</b>	<b>MSF</b>	<b>ISB Section 1</b>	<b>ISB Section 2</b>	<b>GMP</b>
<b>OBJECTIVES</b>								
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								
<b>KNOWLEDGE</b>								
<b>Applied Anatomy</b>								
Applied Anatomy		X				X	X	1
Embryology		X				X	X	1
<b>Pathophysiology</b>								
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
<b>CLINICAL SKILLS</b>								
<b>History and Examination</b>								
Breast, nodal basin, relevant systems	X					X	X	1,3

<b>Investigation</b>						X		
Triple assessment	X	X				X	X	1
<b>Imaging techniques</b>						X		
Ultrasound interpretation	X	X				X	X	1
Mammography interpretation	X	X				X	X	1
MRI - indications and interpretation	X	X				X	X	1
Management plan	X	X				X	X	1
<b>TECHNICAL SKILLS</b>								
<b>Drainage of breast abscess</b>								
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

	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>BREAST CANCER</b>								
<b>OBJECTIVES</b>								
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 plastic surgical breast procedures and manage postoperative care and follow-up								
<b>KNOWLEDGE</b>								
<b>Genetics of breast cancer</b>								
Family History		X				X	X	1
NICE Guidelines		X				X	X	1
Risk lesions - LCIS, ADH		X				X	X	1
<b>Pathology of in-situ breast cancer</b>								
Clinicopathology		X				X	X	1
Epidemiology		X				X	X	1
<b>Invasive breast cancer</b>								
Taxonomy		X				X	X	1
Staging		X				X	X	1
Epidemiology		X				X	X	1
Cancer biology		X				X	X	1
<b>Prognostic factors</b>								
Chief prognostic factors		X				X	X	1
Relevance to treatment		X				X	X	1
<b>Risk assessment / genetic testing / counselling</b>								
Advice, diet, lifestyle, screening, risk reduction surgery		X				X	X	1
<b>Screening</b>								
Evidence, organisation		X				X	X	1
Delivery, imaging modality, results		X				X	X	1
<b>Cancer staging</b>								
Bone scan, MRI, CT, PET, tumour markers etc		X				X	X	1
<b>Management/treatment</b>								
Risks and benefits of treatment/no treatment		X				X	X	1
<b>Treatment</b>								
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
<b>Breast Service Delivery and QA</b>								
Multidisciplinary Teams	X	X			X		X	1,2,3
<b>Guidelines and protocols - network, national, etc</b>								
NICE		X				X	X	1
ABS		X				X	X	1
NHSBSP		X				X	X	1
Others: ASCO, ST Gallen		X				X	X	1
<b>CLINICAL SKILLS</b>								
<b>History and Examination</b>								
Breast, nodal basin, relevant systems	X	X				X	X	1,3
<b>Investigation</b>								
Triple assessment	X	X				X	X	1
<b>Imaging techniques</b>								
Ultrasound interpretation	X	X				X	X	1
Mammography interpretation	X	X				X	X	1
MRI - indications and interpretation	X	X				X	X	1
<b>Management plan</b>								
Develop and record plan		X				X	X	1
Communication / informed consent		X			X	X	X	1,3
<b>TECHNICAL SKILLS</b>								
<b>Wide local excision</b>								
Palpable lesion				X				1
impalpable - localised - wire/skin mark etc				X				1
Re-coning				X				1
Therapeutic mammoplasty - various pedicles/incisions				X				1

Grisotti flap				X				1
Round block (Benelli)				X				1
<b>Mastectomy</b>								
Simple				X				1
Modified radical				X				1
Skin sparing - nipple preserving				X				1
Skin sparing - nipple sacrificed				X				1
Skin reducing				X				1
<b>Axillary surgery</b>								
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
<b>Reconstructive surgery - immediate and delayed</b>								
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
<b>Nipple areolar complex</b>								
Nipple free graft				X				1
<b>Nipple reconstruction</b>								
Local flap				X				1
Skin graft				X				1
Nipple tattoo				X				1
Nipple sharing				X				1
<b>Symmetrisation surgery</b>								
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
<b>Breast Aesthetics</b>								
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**

<b>NECK SWELLINGS</b>	<b>CEX</b>	<b>CBD</b>	<b>DOPS</b>	<b>PBA</b>	<b>MSF</b>	<b>ISB Section 1</b>	<b>ISB Section 2</b>	<b>GMP</b>
<b>OBJECTIVE</b>								
Assesment and Management of Neck Swellings								
<b>KNOWLEDGE</b>								
<b>Anatomy of triangles of neck</b>								
Submental, submandibular, anterior, posterior		X				X	X	1
<b>Causes of enlargement of salivary glands / thyroid gland</b>								
Thyroglossal cyst, lymph nodes		X				X	X	1
Skin and soft tissue including branchial cyst		X				X	X	1
<b>Investigation of neck swellings</b>								
Diagnostic imaging, ENT assessment, pathology and biochemistry		X				X	X	1
<b>CLINICAL SKILLS</b>								
History and examination of neck swellings	X					X	X	1,3
Investigation		X				X	X	1
Diagnostic imaging		X				X	X	1
ENT assessment		X				X	X	1
Pathology		X				X	X	1
Biochemistry		X				X	X	1
<b>TECHNICAL SKILLS</b>								
Biopsy - FNA			X					1
Cervical lymph node biopsy			X					1

<b>THYROID</b>	<b>CEX</b>	<b>CBD</b>	<b>DOPS</b>	<b>PBA</b>	<b>MSF</b>	<b>ISB Section 1</b>	<b>ISB Section 2</b>	<b>GMP</b>
<b>OBJECTIVE</b>								
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								
<b>KNOWLEDGE</b>								
Anatomy of the neck, in particular thyroid and parathyroid glands		X				X	X	1
<b>Pathophysiology of thyroid swellings</b>								
Generalised/solitary; functioning/non-functioning		X				X	X	1
<b>Benign disorders of thyroid growth</b>								
Diffuse enlargement, nodular disease		X				X	X	1
<b>Disorders of thyroid function</b>								
Causes, Treatment options		X				X	X	1
Medical treatment of thyrotoxicosis		X				X	X	1
<b>Thyroid malignancy</b>								
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
<b>CLINICAL SKILLS</b>								
History and examination	X						X	1,3
<b>Investigations</b>								
Thyroid function, autoantibodies		X				X	X	1
FNA, Ultrasound, Isotope scan		X				X	X	1
<b>Indications for surgery</b>								
Thyrotoxicosis, benign nodular disease, malignancy		X				X	X	1
Decisions for operative or non-operative management		X				X	X	1
Choice of operation		X				X	X	1
Postoperative management		X				X	X	1
Postop bleeding, airway problems, hypercalcaemia		X				X	X	1
<b>Diagnosis and management of recurrent thyroid disease</b>								
Benign / malignant, MDT discussions		X				X	X	1
<b>TECHNICAL SKILLS</b>								
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

<b>PARATHYROID</b>	<b>CEX</b>	<b>CBD</b>	<b>DOPS</b>	<b>PBA</b>	<b>MSF</b>	<b>ISB Section 1</b>	<b>ISB Section 2</b>	<b>GMP</b>
<b>OBJECTIVE</b>								
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								
<b>KNOWLEDGE</b>								
Anatomy / embryology / pathophysiology		X				X	X	1
Genetic implication of parathyroid disease		X				X	X	1
<b>Hypercalcaemia</b>								
Causes		X				X	X	1
Investigation		X				X	X	1
Medical management		X				X	X	1

<b>Hypocalcaemia</b>									
Causes		X				X	X		1
Investigation		X				X	X		1
Medical management		X				X	X		1
<b>Causes of hyperparathyroidism</b>									
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
<b>Intraoperative management</b>									
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
<b>CLINICAL SKILLS</b>									
History and examination	X					X	X		1,3
Investigations - biochemical, radiological		X				X	X		1
Selection for surgery		X				X	X		1
<b>Options</b>									
4 gland exploration, single gland exploration		X				X	X		1
Subtotal resection, Transcervical thymectomy		X				X	X		1
Focussed approach to parathyroid surgery		X				X	X		1
Indications for mediastinal exploration		X				X	X		1
<b>Postop complications</b>									
Bleeding, airway problems, hypocalcaemia		X				X	X		1
<b>TECHNICAL SKILLS</b>									
Parathyroidectomy				X					1
Parathyroid surgery - reoperation				X					1
Thymectomy - transcervical				X					1

<b>ADRENAL</b>	<b>CEX</b>	<b>CBD</b>	<b>DOPS</b>	<b>PBA</b>	<b>MSF</b>	<b>ISB Section 1</b>	<b>ISB Section 2</b>	<b>GMP</b>
<b>OBJECTIVE</b>								
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								
<b>KNOWLEDGE</b>								
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
<b>Disorders of adrenal function</b>								
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
<b>CLINICAL SKILLS</b>								
History and examination	X					X	X	1,3
Investigations - Biochemical, radiological		X				X	X	1
Selection for surgery		X				X	X	1
<b>Preoperative preparation for hormone secreting tumours</b>								
Endocrinologist, Anaesthetist consultation		X			X	X	X	1,3
Postop management of acute adrenal insufficiency		X				X	X	1
Postoperative management of patients with hormone secreting tumours		X				X	X	1
Management of postop bleeding and infection		X				X	X	1
Appropriate follow-up		X				X	X	1
<b>TECHNICAL SKILLS</b>								
Adrenalectomy				X				1

<b>PANCREATIC ENDOCRINE</b>	<b>CEX</b>	<b>CBD</b>	<b>DOPS</b>	<b>PBA</b>	<b>MSF</b>	<b>ISB Section 1</b>	<b>ISB Section 2</b>	<b>GMP</b>
<b>OBJECTIVE</b>								
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								
<b>KNOWLEDGE</b>								
<b>Presentation of neuroendocrine tumours</b>								
Insulinoma, gastrinoma, MEN1, glucagonoma, VIPoma, non-functioning tumour		X				X	X	1
Investigation		X				X	X	1
Treatment options		X				X	X	1
<b>Complications</b>								
Bleeding, fistulae, diabetes		X				X	X	1
<b>CLINICAL SKILLS</b>								
History and examination	X					X	X	1,3
<b>Investigations</b>								
Biochemical, radiological, preop and intraop, ERCP, EUS		X				X	X	1
<b>Treatment options (Laparoscopic or open) and preop preparation</b>								
Pancreatic resection, enucleation, biliary bypass, hepatic resection, ablation of tumour		X				X	X	1
Metastatic disease management		X				X	X	1
<b>Postop complications</b>								
Indication for re-operation, Pancreatic leak / fistula, nutrition		X				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								
	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVE</b>								
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								
<b>KNOWLEDGE</b>								
<b>MEN syndromes</b>								
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
<b>Diagnosis and management</b>								
Medullary thyroid cancer, hyperparathyroidism		X				X	X	1
Phaeochromocytoma, pancreatic neuroendocrine disease		X				X	X	1
<b>Indications and timing for surgery</b>								
Recurrent MTC, parathyroid disease		X				X	X	1
Complications of organ related operation		X				X	X	1
Recurrent disease		X				X	X	1
<b>CLINICAL SKILLS</b>								
History and examination	X						X	1,3
<b>Investigations</b>								
Biochemistry, radiology, cytology/histology, genetic		X				X	X	1
<b>Management of at risk patients / families</b>								
Counselling, endocrinologist and genetics consultation		X				X	X	1
Choice of appropriate operation		X				X	X	1
<b>Postoperative management</b>								
Relevant to specific operation		X				X	X	1
MDT Liaison		X			X	X	X	1
<b>TECHNICAL SKILLS</b>								
Appropriate endocrine operation				X				1
Liaison 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**

<b>ACCESS FOR DIALYSIS</b>	<b>CEX</b>	<b>CBD</b>	<b>DOPS</b>	<b>PBA</b>	<b>MSF</b>	<b>ISB Section 1</b>	<b>ISB Section 2</b>	<b>GMP</b>
<b>OBJECTIVE</b>								
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								
<b>KNOWLEDGE</b>								
<b>Renal failure</b>								
Classification, causes pathophysiology, treatment options		X				X	X	1
<b>Renal dialysis</b>								
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
<b>CLINICAL SKILLS</b>								
Preop preparation including investigations	X					X	X	1,3
Identify access site	X					X	X	1,3
<b>Needling techniques</b>								
Buttonhole		X				X	X	1
Rope-ladder		X				X	X	1
PTFE grafts - indications		X				X	X	1
Postop investigations		X				X	X	1
Fluid management		X				X	X	1
Drug therapy		X				X	X	1
<b>Vascular complications diagnosis</b>								
Steal, Venous hypertension, cardiac failure, aneurysm	X	X				X	X	1
<b>Postop complications</b>								
Thrombosis		X				X	X	1
Haemorrhage		X				X	X	1
Infection		X				X	X	1
CAPD peritonitis incl. sclerosing peritonitis		X				X	X	1
<b>TECHNICAL SKILLS</b>								
Insert central venous dialysis catheter (tunnelled)			X					1
Insert and remove peritoneal catheters				X				1
A-V fistula ligation				X				1
<b>Construct a-v fistula</b>								
Radio-cephalic, brachio-cephalic, brachio-basilic, basilic vein transposition				X				1
Access secondary vascular				X				1

<b>ORGAN RETRIEVAL</b>	<b>CEX</b>	<b>CBD</b>	<b>DOPS</b>	<b>PBA</b>	<b>MSF</b>	<b>ISB Section 1</b>	<b>ISB Section 2</b>	<b>GMP</b>
<b>OBJECTIVE</b>								
The ability to retrieve abdominal organs for transplantation								
<b>KNOWLEDGE</b>								
<b>Contraindications to organ donation</b>								
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
<b>CLINICAL SKILLS</b>								
Assess and manage donors - living and deceased	X	X				X	X	1,3
Multiple abdominal organ retrieval from deceased donors		X				X	X	1
<b>TECHNICAL SKILLS</b>								
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

<b>KIDNEY TRANSPLANT</b>	<b>CEX</b>	<b>CBD</b>	<b>DOPS</b>	<b>PBA</b>	<b>MSF</b>	<b>ISB Section 1</b>	<b>ISB Section 2</b>	<b>GMP</b>
<b>OBJECTIVE</b>								
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								
<b>KNOWLEDGE</b>								
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
<b>Immunology</b>								
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

<b>CLINICAL SKILLS</b>								
Select appropriate patient from waiting list	X	X				X	X	1,3
Postop care - Fluid balance, drug therapy, renal biopsy		X				X	X	1
<b>Postop complications</b>								
Vascular, ureteric complications		X				X	X	1
Rejection		X				X	X	1
Infection		X				X	X	1
Drug side effects		X				X	X	1
<b>TECHNICAL SKILLS</b>								
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 - regrant				X				1

<b>PANCREATIC TRANSPLANTATION</b>								
	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVE</b>								
Assessment of patients for pancreatic transplantation in consultation with physicians; operative management and post operative care. Full competency is not expected by CCT.								
<b>KNOWLEDGE</b>								
<b>Diabetes</b>								
Causes		X				X		1
Pathophysiology		X				X		1
Treatment options		X				X		1
Complications		X				X		1
<b>Indications and contraindications for transplant in diabetes</b>								
Kidney transplant alone		X				X		1
Simultaneous kidney + pancreas transplant		X				X		1
Pancreas transplant alone		X				X		1
Pancreas transplant after kidney transplant		X				X		1
Indications and contraindications for pancreatic donation		X				X		1
Anatomy of pancreas		X				X		1
Implantation site		X				X		1
<b>Immunology</b>								
HLA match, cytotoxic cross match, rejection, immunosuppression		X				X		1
Preop preparation and postop management		X				X		1
<b>CLINICAL SKILLS</b>								
Select appropriate patient	X	X				X		1,3
<b>Postop care</b>								
Fluid management, drug therapy, pancreatic biopsy		X				X		1
<b>Postop complications</b>								
Vascular, duct leaks, pancreatitis		X				X		1
Rejection, infection, drug side effects		X				X		1
<b>TECHNICAL SKILLS</b>								
Pancreatic transplant - donor pancreatectomy				X				1
Pancreatic transplant implant graft				X				1
Convert bladder drainage to enteric drainage				X				1

<b>LIVER TRANSPLANTATION</b>								
	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVE</b>								
ST6: Assess and manage patients undergoing liver transplantation with assistance								
ST8: Assess and manage patients undergoing liver transplantation								
<b>KNOWLEDGE</b>								
<b>Acute and chronic liver failure</b>								
Causes		X				X		1
Pathophysiology		X				X		1
Complications		X				X		1
Treatment options		X				X		1
<b>Indications and contraindications</b>								
Liver transplant		X				X		1
Deceased and live liver donation		X				X		1
<b>Liver anatomy</b>								
Anatomical variants		X				X		1
Surgical anatomy for splitting, reduction, live donation		X				X		1
<b>Immunology</b>								
Rejection		X				X		1
Immunosuppression		X				X		1
Preop preparation and postop management		X				X		1
Perioperative management		X				X		1
Complications of liver transplantation		X				X		1
<b>CLINICAL KNOWLEDGE</b>								
Select appropriate patients	X	X				X		1,3
<b>Postop care</b>								
Fluid management, drug therapy, liver biopsy		X						1
<b>Diagnose and treat complications</b>								
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
<b>TECHNICAL SKILLS</b>								
Liver transplant - donor - deceased hepatectomy				X				1
Liver transplant - recipient operation				X				1

## GSoC

ABDOMINAL PAIN IN CHILDHOOD	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVES</b>								
The ability to assess and manage a child with abdominal pain including appendicectomy								
<b>KNOWLEDGE</b>								
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
<b>CLINICAL SKILLS</b>								
Ability to assess ill child	X					X	X	1,3
Ability to form a viable investigation and treatment plan	X	X				X	X	1
<b>TECHNICAL SKILLS</b>								
Appendicectomy				X				1
Laparotomy/laparoscopy				X				1

INTUSSUSCEPTION	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>Objective</b>								
The ability to assess and manage a child with intussusception including management with an expert radiologist and operation								
<b>Knowledge</b>								
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
<b>Clinical Skills</b>								
Ability to assess child and recognise severity of illness	X					X	X	1,3
Ability to take appropriate resuscitative measures and form a viable investigation and treatment plan	X	X				X	X	1
<b>Treatment Plan</b>								
Ability to communicate with all relevant groups, including referral for specialist treatment		X					X	1,3
Reduction of intussusception			X					1

CHILD WITH VOMITING	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>Objective</b>								
The ability to assess a child with vomiting								
<b>Knowledge</b>								
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
<b>Clinical Skills</b>								
Ability to assess ill child including an assessment of severity of dehydration	X					X	X	1,3
Ability to form a viable investigation and treatment plan		X				X	X	1
<b>Technical Skills</b>								
Pyloromyotomy				X				1

CONSTIPATION	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>Objective</b>								
The ability to assess and manage a child with constipation								
<b>Knowledge</b>								
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
<b>Clinical Skills</b>								
Ability to assess child	X					X	X	1,3
Ability to form a viable investigation and treatment plan		X				X	X	1
To include community aspects of further management		X				X	X	1,3
<b>Technical Skills</b>								
Manual evacuation			X					

ABDOMINAL WALL CONDITIONS	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVE</b>								
The ability 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								
<b>KNOWLEDGE</b>								
<b>Epigastric hernia:</b>								
Developmental anatomy		X				X	X	1
Natural history		X				X	X	1
Indications for and outcomes of surgery		X				X	X	1
<b>Supra-umbilical hernia:</b>								
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

<b>Umbilical hernia:</b>								
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
<b>CLINICAL SKILLS</b>								
<b>Epigastric hernia:</b>								
Ability to assess child and reach appropriate diagnosis	X					X	X	1,3
Ability to form a treatment plan		X				X	X	1
<b>Supra-umbilical hernia:</b>								
Ability to assess child and reach appropriate diagnosis	X					X	X	1,3
Ability to form a treatment plan		X				X	X	1
<b>Umbilical hernia:</b>								
Ability to assess child and reach appropriate diagnosis	X					X	X	1,3
Ability to form a treatment plan		X				X	X	1
<b>TECHNICAL SKILLS</b>								
<b>Epigastric hernia:</b>								
Abdominal wall hernia operation				X				1
<b>Supra-umbilical hernia:</b>								
Abdominal wall hernia operation				X				1
<b>Umbilical hernia:</b>								
Abdominal wall hernia operation				X				1

<b>CHILD WITH GROIN CONDITION</b>	<b>CEX</b>	<b>CBD</b>	<b>DOPS</b>	<b>PBA</b>	<b>MSF</b>	<b>ISB Section 1</b>	<b>ISB Section 2</b>	<b>GMP</b>
<b>Objective</b>								
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								
<b>Knowledge</b>								
<b>Undescended testis</b>								
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
<b>Penile inflammatory conditions</b>								
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
<b>Inguinal Hernia</b>								
Developmental anatomy		X				X	X	1
Natural history		X				X	X	1
Indications for and outcomes of surgery		X				X	X	1
<b>Hydrocele</b>								
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
<b>Acute scrotum</b>								
Natural history		X				X	X	1
Place of conservative management		X				X	X	1
Indications for and outcomes of surgery		X				X	X	1
<b>CLINICAL SKILLS</b>								
<b>Undescended testis</b>								
Ability to assess child and reach appropriate diagnosis	X					X	X	1,3
Ability to form a treatment plan		X				X	X	1
Ability to differentiate true undescended testis from retractile variant	X					X	X	1,3
<b>Penile inflammatory conditions</b>								
Ability to assess child and reach appropriate diagnosis	X					X	X	1,3
Ability to form a treatment plan		X				X	X	
<b>Inguinal Hernia</b>								
Ability to assess child and reach appropriate diagnosis	X					X	X	1,3
Ability to form a treatment plan		X				X	X	
<b>Hydrocele</b>								
Ability to assess child and reach appropriate diagnosis	X					X	X	1,3
Ability to form a treatment plan		X				X	X	
<b>Acute scrotum</b>								
Ability to access child and reach appropriate diagnosis	X					X	X	1,3
Ability to form a treatment plan		X				X	X	1
<b>TECHNICAL SKILLS</b>								
<b>Undescended testis</b>								
Orchidopexy				X				1
<b>Penile inflammatory conditions</b>								
Circumcision				X				1
<b>Inguinal hernia</b>								
Inguinal hernia (not neonatal) operation				X				1
<b>Hydrocele</b>								
Hydrocele operation				X				1

<b>Acute scrotum</b>									
Inguinal hernia (not neonatal) operation					X				1
Hydrocele operation					X				1
Operation for testicular torsion					X				1

<b>UROLOGICAL CONDITIONS</b>	<b>CEX</b>	<b>CBD</b>	<b>DOPS</b>	<b>PBA</b>	<b>MSF</b>	<b>ISB Section 1</b>	<b>ISB Section 2</b>	<b>GMP</b>
<b>Objective</b>								
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								
<b>Knowledge</b>								
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
<b>Clinical Skills</b>								
Haematuria: Ability to assess child	X					X	X	1,3
Ability to form a viable investigation and treatment plan		X				X	X	1
Ability to communicate with all relevant groups	X	X				X	X	1,3
Urinary Tract Infection: Ability to assess child	X					X	X	1,3
Ability to form a viable investigation and treatment plan		X				X	X	1
Ability to communicate with all relevant groups	X	X				X	X	1,3
Circumcision						X	X	
Ability to assess indications for circumcision	X	X				X	X	1,3
<b>Technical Skills</b>								
Haematuria: Suprapubic catheter insertion			X					1
Circumcision: Circumcision			X					1

<b>HEAD AND NECK SWELLINGS</b>	<b>CEX</b>	<b>CBD</b>	<b>DOPS</b>	<b>PBA</b>	<b>MSF</b>	<b>ISB Section 1</b>	<b>ISB Section 2</b>	<b>GMP</b>
<b>Objective</b>								
The ability to assess and manage a child with a head and neck swelling								
<b>Knowledge</b>								
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
<b>Clinical Skills</b>								
Ability to assess child	X					X	X	1,3
Ability to form a viable investigation and treatment plan		X				X	X	1
<b>Technical Skills</b>								
Lymph node biopsy			X					1

<b>TRAUMA (see also Emergency General Surgery)</b>	<b>CEX</b>	<b>CBD</b>	<b>DOPS</b>	<b>PBA</b>	<b>MSF</b>	<b>ISB Section 1</b>	<b>ISB Section 2</b>	<b>GMP</b>
<b>Objective</b>								
The ability to assess and manage a child with trauma								
<b>Knowledge</b>								
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 category of trauma		X				X	X	1
<b>Clinical Skills</b>								
Ability to appropriately assess trauma cases and carry out resuscitative measures	X					X	X	1,3
Ability to prioritise interventions		X				X	X	1
Ability to act as part of a team or lead team as appropriate	X	X				X	X	1
PALS course								1,2,3
<b>Technical Skills</b>								
Chest drain insertion			X					1
Central venous line insertion			X					1
Suprapubic catheter insertion			X					1

<b>MISCELLANEOUS</b>	<b>CEX</b>	<b>CBD</b>	<b>DOPS</b>	<b>PBA</b>	<b>MSF</b>	<b>ISB Section 1</b>	<b>ISB Section 2</b>	<b>GMP</b>
<b>Objective</b>								
The ability to assess and manage a child with superficial abscess or with ingrowing toenail								
<b>Knowledge</b>								
Superficial Abscess								
Causes of superficial abscess in children		X				X	X	1
Anatomy of underlying 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

<b>Clinical Skills</b>								
Superficial Abscess								
History and examination	X					X	X	1,3
Recognition of the need for other investigation		X				X	X	1
Recognition of need for drainage or antibiotics		X				X	X	1
Ingrowing Toenail								
History and examination	X					X	X	1,3
Recognition of need for operative treatment		X				X	X	1
<b>Technical Skills</b>								
Superficial Abscess								
Abscess drainage			X					1
Ingrowing Toenail								
Ingrowing toenail operation			X					1

R&R

OPHTHALMOLOGY	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVE</b>								
Ability to deal with common minor eye emergencies and refer serious problems appropriately								
<b>KNOWLEDGE</b>								
Anatomy of the eye		X					X	1
Causes and presentation of foreign bodies in the eye		X					X	1
Cause and presentation of dendritic ulcer		X					X	1
Causes of flash burns to the eye		X					X	1
Common eye infection, their presentation and complications		X					X	1
Other causes of red eye, including glaucoma		X					X	1
<b>CLINICAL SKILLS</b>								
Examination of the eye	X						X	1,3
Removal of foreign bodies from cornea			X				X	1
Diagnosis and management of dendritic ulcer	X	X					X	1,3
Diagnosis and management of flash burns	X	X					X	1,3
Diagnosis and management of common eye infections	X	X					X	1,3
Slit lamp examination	X		X				X	1,3

OTOLARYNGOLOGY	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVE</b>								
Ability to deal with common minor ENT emergencies and refer serious problems appropriately								
<b>KNOWLEDGE</b>								
Anatomy of the nose, external auditory canal and pharynx		X					X	1
Presentation and complications of foreign bodies in nose, auditory canal and pharynx		X					X	1
<b>CLINICAL SKILLS</b>								
Examination of the ear, nose and throat	X						X	1,3
Removal of foreign bodies from external auditory canal and nose			X				X	1
Removal of fish bones etc. from the pharynx			X				X	1
Packing of noses - anterior and posterior			X				X	1
Treatment of epistaxis		X	X				X	1

DENTAL	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVE</b>								
Ability to deal with common minor dental emergencies and refer serious problems appropriately								
<b>CLINICAL SKILLS</b>								
Sewing bleeding sockets after extractions			X				X	1
Broken teeth - using temporary 'putty' and management of the tooth knocked out intact using milk			X				X	1
Management of dental abscesses		X	X				X	1

PLASTIC SURGERY	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVE</b>								
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.								
<b>KNOWLEDGE</b>								
Pathophysiology of burn injury		X				X	X	1
Complications of burn injury		X				X	X	1
<b>CLINICAL SKILLS</b>								
Assessment and resuscitation of burn victims	X	X				X	X	1,3
Identification of burn victims with potential airway problems and emergency management in conjunction with anaesthetists	X	X				X	X	1,3
Appropriate referral and transfer to regional burns centre		X				X	X	1
Management of minor burns conservatively or by split skin graft		X	X			X	X	1
<b>TECHNICAL SKILLS</b>								
Skin graft			X					1

NEUROSURGERY	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVE</b>								
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								
<b>KNOWLEDGE</b>								
Anatomy of skull, brain and meninges		X					X	1
Pathophysiology of head injury		X					X	1
Appropriate emergency investigation of head injuries		X					X	1
Indications for surgical intervention in extreme circumstances after discussion with regional neurosurgical centre		X					X	1
<b>CLINICAL SKILLS</b>							X	
Assessment and resuscitation of head injuries	X						X	1,3
<b>TECHNICAL SKILLS</b>								
Burr hole(s)/craniotomy				X				1

ADVANCED TRAUMA / MILITARY - GENERAL PRINCIPLES (for those intending to work in a trauma centre or in the military)

	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>Objectives</b>								
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								
<b>KNOWLEDGE</b>								
<b>Pathophysiology of trauma</b>								
Pathophysiology of blunt trauma		X					X	1
Penetrating injury (low and high energy trauma)		X					X	1
Blast injury		X					X	1
Burns		X					X	1
Safe patient transfer: Understanding of strategic/tactical situation							X	1,2,3
Trauma Laparotomy		X					X	1
Indications for laparostomy		X					X	1
<b>Paediatric trauma</b>								
Paediatric physiology		X					X	1
Paediatric trauma laparotomy		X					X	1
Trauma thoracotomy: Indications for thoracotomy		X					X	1
Incisions used in particular circumstances		X					X	1
Damage control surgery: Damage control vs. definitive laparotomy		X					X	1
Difficult peripheral haemorrhage: Anatomical approach to major vessels		X					X	1
Severely traumatised ischaemic limbs: Anatomical approach to major vessels		X					X	1
Pregnant woman with severe abdominal trauma: Indications for Caesarean section		X					X	1
<b>Burns:</b>								
Knowledge of fluid replacement regimes for burns patients		X					X	1
<b>Clinical Skills</b>								
Safe patient transfer: Awareness of evacuation assets	X	X					X	1,2,3
Interventional surgery only if the patient cannot be transferred safely within the relevant timeframe	X	X					X	1,2,3
<b>Trauma Laparotomy:</b>								
Use of Focussed Abdominal Sonography for Trauma	X	X					X	1
Exposure of retroperitoneal structures				X			X	1
Techniques for arresting haemorrhage including liver packing		X		X			X	1
Safe anastomotic techniques for gut and blood vessels		X		X			X	1
Appropriate formation of stomas		X		X			X	1
Trauma thoracotomy: Lung resection		X		X			X	1
Cardiac repair without bypass		X		X			X	1
<b>Damage control surgery:</b>								
Management of the postoperative patient in difficult circumstances e.g. acidosis,coagulopathy, rewarming		X		X			X	1
Difficult peripheral haemorrhage: Safe control of major vessels		X		X			X	1
Severely traumatised ischaemic limbs: Safe control of major vessels		X		X			X	1
Repair of vessels		X		X			X	1
Use of temporary shunts		X		X			X	1
Fasciotomy		X		X			X	1
Decision to amputate		X		X			X	1
Amputation AK		X		X			X	1
Amputation BK		X		X			X	1
Amputation upper limb		X		X			X	1
Pregnant woman with severe abdominal trauma: Caesarean section		X		X			X	1
Burns: Escharotomy		X		X			X	1
Fluid replacement		X		X			X	1
Surgical airway management in severe head and neck injury: Cricothyroidotomy		X		X			X	1
Tracheostomy		X		X			X	1
Stabilisation of the jaw after severe facial injury: Interdental wiring		X		X			X	1
<b>Technical Skills</b>								
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