

GENERAL SURGERY – SYLLABUS

The GenSurg syllabus comprehensively describes "**Knowledges**" and "**Knowledges and Experiences**" (= basis for an individual "Log-book") mandatory for the qualification as **F.E.B.S./GenSurg**.

The syllabus is at that time is not a complete curriculum that gives a structured educational plan but provides a crude orientation and a framework around which preparation for the qualification as F.E.B.S./GenSurg can be structured.

The syllabus should not be viewed as static but will be continuously revised and updated by the members of the committee. It is noted, that research and changes in medicine may lead to significant changes in theory and clinical practice and by that will influence the content of the syllabus. New topics will be introduced and obsolete topics may be deleted. The candidates are expected to update their level according to the recent surgical practice and scientific literature.

To achieve the qualification as F.E.B.S./GenSurg "Knowledges" have to be documented and provided for **Eligibility I** and are assessed by examination (**Eligibility II**).

"Knowledges and Experiences" have to be documented and proved in the log-book for Eligibility I and may be additionally assessed by examination. For pragmatical reasons the individual log-books are scrutinized in the Eligibility I process taking into consideration the various national requirements and local situations.

By that provisional arrangements are provided: if e.g. "flexible endoscopy" is not part of GenSurg in a distinct country, the candidate may omit this section in "Knowledges and Experiences" without consequences for the Eligibility I process, but approval of "Knowledges" in e.g. "flexible endoscopy" will be mandatory for the Eligibility II process (=examination). This procedure is also valid for e.g. "thyroid surgery" or "breast surgery" and others.

KNOWLEDGES

The specialty of General Surgery requires documented and assessed knowledges in:

Preoperative Management

- Physical examination
- Tests of respiratory, cardiac, renal and endocrine function
- Electrocardiography and interpretation
- Management of associated medical conditions, eg. diabetes, respiratory disease, cardiovascular disease, malnutrition, anaemia, jaundice, steroid, anticoagulant, immunosuppressant and other drug therapy, and drug treatment for psychiatric disorders
- Patient information and documentation of informed consent
- Prophylaxis of thromboembolic disease
- Assessment of fitness for anaesthesia and surgery
- Premedication and sedation

Intraoperative Care

- Patient positioning
- Prevention of nerve and other injuries in the anaesthetised patient
- Principles of general and regional anaesthesia
- Care and monitoring of the anaesthetised patient

Postoperative Management

- Pain control
- Post-operative monitoring
- Post-operative complications
- Prevention, recognition and management of complications
- Techniques of venous access
- Assessment and maintenance of fluid and electrolyte balance
- Blood transfusion-indications, hazards, complications, plasma substitutes
- Respiratory failure-recognition and treatment
- Nutritional support-indications, techniques, total parenteral nutrition

Surgical Sepsis and its Prevention

- Hospital hygiene
- Aseptic techniques
- Sterilisation
- Principles of asepsis and antisepsis
- Surgically important micro-organisms
- The sources of surgical infection-prevention and control
- Pathophysiology of the body's response to infection
- Septic Shock
- Antibiotic prophylaxis and therapy of infections
- Surgery in hepatitis and HIV carriers-special precautions

Basic Surgical Technique and Technology

- Patients' positioning
- Dressings
- Surgical instruments and technical OR equipment
- Skin preparation
- Suture and ligature materials
- Incisions and their closure
- Principles and techniques of biopsy and cytological sampling
- Modalities of tissue probe sampling for frozen section and paraffine histology, cytology and bacteriology
- Pathophysiology of wound healing

- Principles of wound management
- Classification of surgical wounds
- Treatment of chronic wounds (e.g. VAC-therapy)
- Scars and contracture
- Wound dehiscence
- Basic principles of bowel and blood vessel anastomosis
- Mechanical stapling devices and techniques of stapled anastomoses
- Minimal invasive surgery techniques
- Surgical meshes
- Disorders of coagulation and haemostasis
- Diathermy-principles and precautions, alternative energy sources (e.g. Harmonic)
- Lasers-principles and precautions
- Explosion hazards relating to general anaesthesia and endoscopic surgery

Procedures

- Drainage of body cavities and retentions
- Sampling of body fluids and/ or body excretions for laboratory investigation, interpretation of results
- Local and regional anaesthesia
- Excision of cysts and benign tumours of skin and subcutaneous tissues

Critical Surgical illness and Intensive Care Medicine

The applied basic science relevant to the clinical assessment of critically ill patients and to the understanding of disorders of function caused by haemorrhage, shock and sepsis.

- Posttraumatic, preoperative, perioperative and postoperative intensive care medicine
- Cardiopulmonary and pharmacological resuscitation
- Fluid replacement, infusion therapy and parenteral alimentation
- Blood transfusion and serology
- Blood coagulation disorders and substitution measures
- Blood gas analysis and acid base balance
- Derangements of electrolytes and acid-base
- Principles of organ transplantation surgery
- Principles of organ harvesting in Tx surgery

Conditions

- Hypovolemic shock
- Septic, cardiogenic, anaphylactic and neurogenic shock
- Coagulopathy
- Neurologic dysfunction
- Endocrine dysfunction
- Pneumonia – hospital acquired
- Single organ failure (heart, liver, kidney)
- Multiple system organ failure (pathophysiology and treatment)
- Respiratory failure-pulmonary oedema “shock lung”, adult respiratory distress syndrome, lobar and pulmonary collapse
- Pulmonary embolism

- Peritonitis
- Acute necrotizing pancreatitis
- Septic inflammatory response syndrome
- Common acute abdominal emergencies (ileus, perforation, bleeding)
- Acute gastrointestinal haemorrhage
- Acute renal failure in surgical patients
- Hemofiltration, dialysis and plasmapheresis
- Malignant hyperthermia

Procedures

- Central venous catheterisation
- Catheterisation of the pulmonary artery
- Catheterisation of the radial and femoral artery
- Pulmonary artery catheter placement
- Endotracheal intubation
- Real-time ultrasound technique for vascular localization
- Administration of oxygen and administrative devices
- Airway management
- Thoracentesis
- Paracentesis
- Nasogastric tube placement
- Urinary catheterization
- Patient controlled analgesia and epidural analgesia
- Measurement of compartment pressures (abdomen, extremity)
- Cardiac pacing (external and transvenous) and pacemaker implantation
- Defibrillation and cardioversion

Traumatology and Emergency Medicine

The applied basic science relevant to the clinical assessment of more or less severely injured patients and to the understanding of disorders of function caused by trauma, haemorrhage and shock.

- Principles of pre-hospital care
- Clinical assessment of critically ill and severely injured patients-scoring systems
- Subsequent initial treatment and decision-making about referral to specialised center
- Monitoring of vital functions in critically ill or severely injured patients
- Maintenance of airway in severely injured and unconscious patients, endotracheal intubation, laryngotomy, tracheostomy
- Cardiac arrest, resuscitation and haemodynamic support

Conditions

- Management of the unconscious patient
- Management of polytraumatised patients
- Haemorrhage and shock
- Initial treatment in severe head and brain injury
- Closed and penetrating head injury
- Head injuries including facial and orbital trauma
- Surgical emergency procedures and trepanation

- Spine fracture
- Initial management of traumatic spine injury, para- and tetraplegia
- Nerve and vascular injuries of the neck
- Injuries of the Pharynx, larynx and trachea
- Tracheobronchial injuries
- Sternal and rib fractures
- Closed and penetrating chest injuries
- Pneumo- and hemothorax
- Pulmonary contusion and laceration
- Myocardial contusion
- Cardiac tamponade
- Injuries of the diaphragm
- Closed, blunt and penetrating abdominal injuries
- Injuries of the esophagus, stomach and duodenum
- Injuries of the liver, spleen and pancreas
- Injuries of the small intestine, colon, rectum and perineum
- Retroperitoneal hematoma
- Traumatic haematuria
- Injuries of the kidney, bladder, urter and urethra
- Vascular injuries of the thorax, abdomen and extremities
- Aortic Injuries
- Extremity fractures
- Pelvic fractures
- Dislocations
- Sprains and strains
- Traumatic oedema and the compartment syndromes
- Pathophysiology of fracture healing, non-union, delayed union, complications, principles of treatment, principles of bone grafting
- Mangle and traumatic amputation
- Skin loss-principles of treatment by grafts and flaps
- Traumatic wounds
- Gunshot and blast injuries
- Burn injury
- Smoke inhalation injury
- Carbon monoxide poisoning
- Hypothermia and frostbite
- Snake, spider and other animal bites
- Human bites
- Bee and wasp stings
- Pediatric trauma
- Geriatric trauma
- Trauma in pregnancy

Procedures

- Focused assessment with sonography and CT (FAST scan)
- Placement of intracranial pressure monitor
- Neck exploration for trauma
- Reduction and stabilization of maxillofacial fracture
- Repair cardiac injury
- Open exploratory thoracotomy and laparotomy
- Laparoscopic exploratory laparotomy

- Management of esophageal and gastrointestinal trauma
- Splenectomy/splenorrhaphy
- Repair of hepatic lacerations and hepatic resection for trauma
- Drainage and resection in pancreatic injury
- Repair and resection for kidney trauma
- Repair ureteral and bladder injury
- Repair of thoracic aorta, innominate, subclavian injury
- Repair of carotid artery injury
- Repair of abdominal aorta or vena cava injury
- Repair peripheral vessels
- Debride/suture major wounds
- Fasciotomy for injury
- Burn debridement or grafting
- Repair of tendon or nerve
- Closed reduction of fracture
- Open reduction of open/closed fracture
- Debridement and reduction of open fracture

Haematopoietic and Lymphoreticular Systems

The anatomy, physiology and pathology of the haemopoietic and lymphoreticular systems appropriate to the understanding of clinical signs and special investigations.

Conditions

- Surgical aspects of disordered haemopoiesis
- Haemolytic disorders of surgical importance
- Haemorrhagic disorders, disorders of coagulation
- Immune response to trauma, infections and tissue transplantation
- Surgery in the immuno-compromised patient
- Surgical aspects of autoimmune disease

Procedures

- Lymph node surgery in malignant disease
- Technique of sentinel lymph node detection and surgery
- Lymphoedema
- Splenectomy for hypersplenism

Skin & Soft Tissue

Conditions

- Pilonidal cyst and sinus
- Nevi
- Melanoma
- Squamous cell carcinoma
- Basal cell carcinoma
- Evaluation of soft tissue masses

- Epidermal cyst
- Apocrine tumor
- Eccrine tumor
- Sebaceous tumor
- Merkel cell tumor
- Dermatofibrosarcoma
- Hidrosadenitis
- Cellulitis
- Necrotizing fasciitis
- Panaritium and paronychia
- Wound infection
- Decubitus ulcer
- Extremity soft tissue sarcomas
- Retroperitoneal soft tissue sarcomas
- Lymphedema

Procedures

- Excisional and incisional biopsy of skin/soft tissue lesions
- Incision, drainage, debridement for soft tissue infections
- Pilonidal cystectomy
- Wide local excision melanoma
- Sentinel lymph node biopsy for melanoma
- Ilioinguinal – femoral lymphadenectomy
- Major resection for soft tissue sarcoma

Musculo-skeletal System

Musculo-skeletal anatomy, physiology and pathology relevant to the clinical examination of the locomotor system and to the understanding of disordered locomotor function with emphasis on the effects of trauma.

- Common disorders of infancy and childhood
- Metabolic and degenerative bone disease: osteoporosis and osteomalacia
- Bone and joint infections including those related to prostheses
- Principles of joint replacement
- Amputations
- Principles of orthotics and rehabilitation of the amputee
- Diagnosis and treatment of common fractures
- Diagnosis and treatment of common injuries and disorders of joints
- Hand infections and injuries
- Principles of tendon repair
- Common disorders of the foot
- Cervical and shoulder pain
- Back pain and sciatica
- Differential diagnosis of arthritis
- Peripheral nerve lesions
- Nerve regeneration-principles of nerve repair
- Malignant disease of bone and soft tissues

Head & Neck

Conditions

- Upper airway obstruction
- Epistaxis
- Mucosal cancers of the oral cavity, pharynx and larynx
- Parotid gland tumors
- Submandibular gland tumors
- Cervical lymphadenopathy

Procedures

- Tracheostomy
- Cricothyroidotomy
- Resection of lip/tongue lesions
- Parotidectomy
- Modified radical neck dissection

Abdomen - General

Conditions

- Acute abdominal pain
- Intra-abdominal abscess
- Rectus sheath hematoma
- Mesenteric cyst
- Chronic abdominal pain
- Carcinomatosis
- Pseudomyxoma peritonei
- Spontaneous bacterial peritonitis
- Desmoid tumors
- Chylous ascites
- Retroperitoneal fibrosis

Procedures

- Insertion peritoneal dialysis catheter
- Laparoscopic exploratory laparotomy
- Open exploratory laparotomy
- Open drainage abdominal abscess
- Open retroperitoneal lymph node dissection
- Laparoscopic retroperitoneal lymph node dissection
- Operation for pseudomyxoma

Abdominal Wall and Alimentary Tract

The surgical anatomy of the abdomen and its viscera and the applied physiology of the alimentary system, relevant to clinical examination, to the interpretation of special investigations, to the understanding of disorders of function and to the treatment of abdominal disease.

Hernia

- Principles of standard and tension-free hernia repair
- Principles of hernia repair with/without surgical meshes

Conditions

- Inguinal hernia
- Femoral hernia
- Ventral hernia
- Miscellaneous hernias

Procedures

- Open and laparoscopic repair of inguinal and femoral hernia
- Open and laparoscopic repair of ventral hernia
- Repair of miscellaneous hernias
- Component separation and abdominal wall reconstruction

Biliary Tract

Conditions

- Cancer of the bile ducts
- Gallstone ileus
- Iatrogenic bile duct injury
- Biliary pancreatitis
- Ampullary stenosis/sphincter of Oddi dysfunction

Procedures

- Open and laparoscopic cholecystectomy with or without cholangiography
- Open common bile duct exploration
- Laparoscopic common bile duct exploration
- Choledochoscopy
- Choledochoenteric anastomosis
- Operation for gallbladder cancer
- Repair acute common bile duct injury
- Operation for bile duct cancer
- Excision of choledochal cyst
- Transduodenal sphincteroplasty

Liver

Conditions

- Liver mass – evaluation
- Hepatic abscess
- Hepatic adenoma
- Focal nodular hyperplasia
- Hemangioma
- Hepatocellular carcinoma
- Cholangiocarcinoma
- Metastatic tumors
- Miscellaneous hepatic neoplasms
- Ascites
- Bleeding esophageal varices
- Hepatic failure and encephalopathy
- Hepatorenal syndrome
- Viral hepatitis (occupational risk)
- Split liver resection for Tx

Procedures

- Open liver biopsy
- Laparoscopic liver biopsy
- Drainage liver abscess
- Open segmentectomy/lobectomy
- Laparoscopic segmentectomy/lobectomy
- Intraoperative ultrasound of liver
- Portal-systemic shunt

Pancreas

Conditions

- Pancreatic abscess and infected necrosis
- Pancreatic pseudocyst
- Autoimmune pancreatitis
- Chronic pancreatitis, including hereditary pancreatitis
- Pancreatic insufficiency
- Ductal adenocarcinoma
- Acinar cell carcinoma
- Cystic neoplasms
- Intraductal papillary mucinous neoplasms
- Other periampullary neoplasms
- Gastrinoma and Zollinger-Ellison syndrome
- Insulinoma, VIPoma, Glucagonoma and Somatostatinoma
- Nonfunctional endocrine tumors
- Lymphoma of pancreas

Procedures

- Laparoscopic/endoscopic pancreatic debridement for necrosis

- Pancreaticoduodenectomy
- Duodenum preserving pancreatic resection
- Total pancreatectomy
- Ampullary resection for tumor
- Distal pancreatectomy
- Longitudinal pancreaticojejunostomy
- Intraoperative pancreatic ultrasound
- Open pancreatic debridement for necrosis
- Drainage pancreatic pseudocyst

Spleen

Conditions

- Postsplenectomy sepsis
- Hemolytic anemias
- Idiopathic thrombocytopenic purpura
- Secondary hypersplenism and splenomegaly
- Neoplasms of spleen
- Splenic cysts

Procedures

- Open and laparoscopic splenectomy
- Partial splenectomy/splenorrhaphy

Esophagus

Conditions

- Zenker's diverticulum
- Epiphrenic diverticulum
- Hiatal hernia
- Gastroesophageal reflux and Barrett's esophagus
- Dysphagia
- Schatzki's ring
- Achalasia
- Nutcracker esophagus
- Foreign bodies
- Mallory-Weiss syndrome
- Diffuse esophageal spasm
- Spontaneous esophageal perforation
- Iatrogenic esophageal perforation
- Chemical burns
- Scleroderma connective tissue disorders
- Benign neoplasms
- Adenocarcinoma
- Squamous cell carcinoma

Procedures

- Diagnosis of gastroesophageal reflux (e.g. pH-metry)
- Diagnosis of esophageal and gastric motility disorders (e.g. manometry)
- Open and laparoscopic antireflux procedure
- Open and laparoscopic repair of paraesophageal hernia
- Repair/resection of perforated esophagus
- Total esophagectomy
- Esophagogastrectomy
- Cricopharyngeal myotomy with excision Zenker's diverticulum
- Open Heller myotomy
- Laparoscopic Heller myotomy
- Collis gastroplasty

Stomach

Conditions

- Upside down stomach
- Upper gastrointestinal bleeding
- Gastric carcinoma
- Duodenal ulcer
- Gastric ulcer
- Peptic ulcer disease with bleeding, perforation or obstruction
- Gastric polyps
- Gastric lymphoma
- Gastric carcinoid tumor
- Stress gastritis
- Morbid obesity
- Bezoars and foreign bodies
- Gastroparesis
- Postgastrectomy syndromes

Procedures

- Percutaneous endoscopic gastrostomy
- Open gastrostomy
- Partial/total gastrectomy
- Open and laparoscopic gastric resection
- Repair of duodenal perforation
- Truncal and selective proximal vagotomy
- Pyloroplasty
- Open and laparoscopic operation for morbid obesity
- Proximal gastric vagotomy
- Revisional procedures for postgastrectomy syndromes

Jejunum & Ileum

Conditions

- Small bowel obstruction and ileus
- Emergent and elective management of Crohn's disease of small intestine
- Acute mesenteric ischemia: arterial, venous, and nonocclusive
- Meckel's diverticulum
- Radiation enteritis
- Small intestinal polyps
- Small intestinal adenocarcinoma
- Small intestinal lymphoma
- Small intestinal carcinoid tumor
- Small intestinal GISTs
- Intussusception
- Pneumatosis cystoides intestinalis
- Short bowel syndrome
- Enteric infections and blind loop syndrome

Procedures

- Open and laparoscopic small bowel resection
- Open and laparoscopic adhesiolysis
- Open and laparoscopic feeding jejunostomy
- Ileostomy
- Ileostomy closure
- Superior mesenteric artery embolectomy/ thrombectomy
- Resection and stricturoplasty for Crohn's disease

Colon & Rectum

Conditions

- Lower gastrointestinal bleeding
- Large bowel obstruction
- Volvulus
- Acute appendicitis
- Diverticulitis
- Diverticular bleeding and fistulae
- Colonic polyps
- Colonic and rectal cancer
- Miscellaneous colonic neoplasms
- Appendiceal neoplasms
- Crohn's disease
- Emergent management of indeterminate colitis
- Ischemic colitis
- Antibiotic-induced colitis
- Infectious colitis
- Ulcerative colitis
- Endometriosis
- Irritable bowel syndrome

- Functional constipation

Procedures

- Open and laparoscopic appendectomy
- Open and laparoscopic colon and rectum resection
- Colostomy
- Colostomy closure
- Subtotal colectomy with ileorectal anastomosis/ileostomy
- Low rectal resection with total mesorectal excision
- Total proctocolectomy
- Coloanal anastomosis
- Ileoanal pullthrough, ileal pouch formation and poucho-anal anastomosis
- Abdominoperineal resection
- Pelvic exenteration for rectal cancer

Anorectal

Conditions

- Hemorrhoids
- Anal fissure
- Anorectal abscess and fistulae
- Anal cancer
- Pelvic floor dysfunction
- Incontinence
- Anal dysplasia/sexually-transmitted disease
- Rectal prolapse
- Fecal incontinence and fecal outlet obstruction

Procedures

- Diagnosis of colonic and anorectal disorders (e.g. anal sphincter manometry)
- Banding for internal hemorrhoids
- Hemorrhoidectomy
- Subcutaneous lateral internal sphincterotomy
- Drainage anorectal abscess
- Anal fistulotomy/seton placement
- Excision of anal cancer
- Stapled hemorrhoidectomy
- HAL/RAR and THD procedures
- Repair complex anorectal fistulae
- Operation for incontinence/constipation
- Open and laparoscopic transabdominal operation for rectal prolapse
- Perineal operation for rectal prolapse
- Transanal resection for tumor
- Operation for anal cancer

Flexible Endoscopy

- Handling of endoscopes and hygienic measures

Procedures

- Flexible diagnostic esophago-gastroduodenoscopy
- Rigid and flexible diagnostic procto-colonoscopy
- Interventional endoscopy (e.g. stenting, polypectomy, mucosectomy)
- E.R.C.P., papillotomy, bile stone extraction and intraluminal stenting
- Therapeutic endoscopic interventions (e.g. polypectomy, dilatation)
- Sclerotherapy of esophageal varices
- Treatment of gastrointestinal bleeding sites (injection, clipping, LASER)
- Endoscopic mucosectomy

Minimal Invasive Surgery

- Techniques of establishing access for MIS (e.g. laparoscopy, SILS, NOTES)
- Detection and treatment of MIS complications
- Instruments and technical devices (e.g. stapling)
- Patient selection and indication for MIS
- Suturing and stapling in MIS

Metabolic and Bariatric Surgery

- Principles of metabolic and bariatric surgery
- Pathophysiology and epidemiology of morbid obesity
- Metabolic syndrome
- Patient selection and indication for bariatric surgery
- Surgical techniques in bariatric surgery
- Detection and treatment of complications

Breast

- Surgical anatomy, applied physiology and pathology of the breast
- Principles of radiation, brachytherapy and chemotherapy in breast cancer

Conditions

- Mastalgia
- Acute mammary infections
- Breast mass
- Nipple discharge
- Fibroadenoma
- Fibrocystic disease
- Intraductal papilloma
- Gynecomastia
- Invasive ductal carcinoma

- Ductal carcinoma in situ
- Invasive lobular carcinoma
- Lobular carcinoma in situ
- Fat necrosis
- Mastitis and abscess
- Galactocoele
- Inflammatory breast cancer
- Paget's disease of the nipple
- Cystosarcoma phylloides
- Breast cancer during pregnancy and lactation
- Occult breast cancer with axillary metastasis
- Male breast cancer
- Atypical ductal hyperplasia
- Hereditary breast cancer
- Radial scar

Procedures

- Aspiration of breast cyst
- Duct excision
- Breast biopsy with or without needle localisation
- Lumpectomy
- Simple mastectomy
- Axillary dissection
- Sentinel lymph node biopsy
- Modified radical mastectomy
- Radical mastectomy
- Stereotactic breast biopsy
- Reconstruction after breast cancer surgery

Endocrine

The surgical anatomy, applied physiology and pathology of the endocrine glands relevant to clinical examination, to the interpretation of special investigations, to the understanding of disordered function and to the principles of surgical treatment of common endocrine disorders.

Conditions

- Thyroid nodule(s)
- Papillary carcinoma
- Follicular carcinoma
- Primary hyperparathyroidism
- Hypothyroidism (postoperative)
- Hypercalcemia
- Hypocalcemia
- Addisonian crisis
- Hyperthyroidism
- Thyreoiditis
- Medullary carcinoma
- Hürthle cell tumors

- Anaplastic carcinoma
- Secondary hyperparathyroidism
- Tertiary hyperparathyroidism
- Recurrent or persistent hyperparathyroidism
- Parathyroid carcinoma
- Multiple endocrine neoplasia type I, IIA, IIB
- Incidental adrenal mass
- Pheochromocytoma
- Primary hyperaldosteronism
- Cushing's syndrome
- Cushing's disease
- Adrenocortical carcinoma

Procedures

- Partial or total thyroidectomy
- Parathyroidectomy
- Open and laparoscopic adrenalectomy

Vascular System

The surgical anatomy and applied physiology of the vascular system relevant to clinical examination, to the interpretation of special investigations and to the understanding of the disorders of function caused by diseases and injuries of the blood vessels.

- Special techniques used in the investigation of vascular disease
- Limb ischaemia: acute and chronic-arterial embolism
- Gangrene
- Aneurysms (e.g. aneurysms of the abdominal aorta)
- Principles of arterial reconstructive surgery
- Reconstructive aortoiliac and femoropopliteal bypass
- Vascular grafts
- Carotid artery
- Disorders of veins of the lower limbs
- Deep venous thrombosis and its complications
- Chronic ulceration of the leg
- Principles of anticoagulation

Procedures

- Percutaneous vascular access for dialysis
- Percutaneous vascular access
- Arteriovenous graft/fistula
- Revision arteriovenous access
- Interventional radiological procedures (e.g. stenting)
- Implantable devices (e.g. i.v. port systems)
- Amputations for vascular disease

Vascular - Arterial

Conditions

- Acute limb ischemia
- Peripheral arterial emboli
- Acute arterial thrombosis
- Compartment syndromes
- Diabetic foot infections
- Cerebrovascular occlusive disease
- Aortoiliac occlusive disease
- Chronic visceral occlusive disease
- Renal artery occlusive disease
- Femoropopliteal occlusive disease
- Infrapopliteal occlusive disease
- Upper extremity occlusive disease
- Winiwarter-Bürger disease
- Fibromuscular dysplasia
- Cystic medial necrosis
- Behcet disease
- Aortic aneurysms
- Visceral arterial aneurysms
- Peripheral arterial aneurysms
- Aortic dissection
- Claudication
- Hypercoagulable syndromes
- Carotid body tumors
- Vascular graft infections
- Aortic thrombosis
- Thoracic outlet syndrome

Procedures

- Embolectomy/thrombectomy artery
- Above knee amputation
- Below knee amputation
- Toe amputation
- Aorto-iliac/femoral bypass
- Ilio-iliac/femoral bypass
- Femoral-popliteal bypass
- Profunda endarterectomy
- Infrapopliteal bypass
- Other endarterectomy
- Composite leg bypass graft
- Revise/re-do lower extremity bypass
- Arm bypass, endarterectomy, repair
- Celiac/SMA endarterectomy/bypass
- Renal endarterectomy/bypass
- Femoral-femoral bypass
- Axillo-femoral bypass
- Axillo-popliteal-tibial bypass
- Transmetatarsal amputation

- Upper extremity amputation
- Disarticulation
- Elective repair infrarenal aortoiliac aneurysm
- Repair femoral aneurysm
- Repair popliteal aneurysm
- Repair suprarenal abdominal aortic aneurysm
- Repair thoracoabdominal aortic aneurysm
- Repair thoracic aortic aneurysm
- Carotid endarterectomy
- Reoperative carotid surgery
- Excise carotid body tumor
- Direct repair aortic arch branches for CNS symptoms
- Vertebral artery operation
- Vascular ultrasound
- Angioscopy
- Balloon angioplasty
- Transcatheter stent
- Other endovascular graft
- Endovascular repair aortic aneurysm
- Endovascular repair other aneurysm
- Endovascular thrombolysis
- Pseudoaneurysm repair/injection
- Explore post-op bleed, thrombosis, infection
- Graft thrombectomy/revision
- Excise infected vascular graft
- Repair graft-enteric fistula
- Sympathectomy
- Harvest arm vein
- Thoracic outlet decompression
- Repair ruptured aortic aneurysm

Vascular – Venous

Conditions

- Venous thrombosis/embolism
- Thrombophlebitis, including suppurative
- Venous stasis and chronic venous insufficiency
- Varicose veins

Procedures

- Venous insufficiency and operation for varicose veins
- EVLT and other endoluminal venous ablation techniques
- Sclerotherapy, peripheral vein
- Insertion vena caval filter
- Venous embolectomy/thrombectomy
- Venous reconstruction
- Non-reconstructive venous ulcer operation
- Repair arteriovenous malformation

Thoracic

The surgical anatomy and pathology of the heart, great vessels, air passages, chest wall, diaphragm and thoracic viscera and the applied cardio-respiratory physiology relevant to clinical examination, interpretation of special investigations and understanding of disorders of cardio-respiratory function caused by disease, injury and surgical intervention.

- The role of surgery in the treatment of cardiac, lung and oesophageal disease
- Thoracoentesis, chest drainage
- Techniques of thoracotomy
- Cardiopulmonary by-pass-general principles
- Special techniques used in the investigation of cardiac disease
- Bronchoscopy, thoracoscopy, mediastinoscopy
- Empyema thoracis
- Pneumothorax
- Complications of thoracic operations
- Malignant disease of the lungs and bronchi

Conditions

- Pneumothorax
- Hemothorax
- Pleural effusion/empyema
- Mediastinitis
- Chylothorax
- Adenocarcinoma of the lung
- Undifferentiated lung carcinoma
- Small-cell and large-cell carcinoma of the lung
- Soft tissue sarcomas of chest wall
- Thymoma
- Teratoma of the mediastinum
- Neurogenic tumor of the mediastinum
- Enteric cyst of the mediastinum
- Pericardial cyst
- Bronchogenic cyst
- Superior vena cava syndrome
- Tracheoinnominate fistula
- Tracheoesophageal fistula
- Valvular heart disease
- Congestive heart failure
- Endocarditis
- Coronary artery disease
- Ventricular aneurysms
- Cardiomyopathy
- Pericarditis

Procedures

- Chest tube placement
- Exploratory thoracotomy
- Pericardial window for drainage

- Thoracoscopy with or without biopsy
- Thoracoscopic pleurodesis
- Excision mediastinal tumor
- Transthoracic repair diaphragmatic hernia
- Open drainage of empyema
- Pneumonectomy
- Cardiac procedures
- Pericardiectomy
- Pacemaker insertion

Paediatric

- Neonatal physiology
- Special problems of anaesthesia and surgery in the newborn
- Principles of neonatal fluid and electrolyte balance
- Correctable life-threatening congenital abnormalities
- Common paediatric surgical disorders, cleft lip and palate, pyloric stenosis, intussusception, hernia, maldescent of testis, torsion.

Conditions

- Hypertrophic pyloric stenosis
- Umbilical hernia
- Inguinal hernia
- Malrotation
- Intussusception
- Meckel's diverticulum
- Gastroschisis
- Omphalocele
- Esophageal atresia
- Tracheoesophageal fistula
- Foreign bodies of the trachea/esophagus
- Congenital diaphragmatic hernia
- Duodenal atresia/stenosis
- Pancreas divisum
- Intestinal atresia and meconium ileus
- Imperforate anus
- Necrotizing enterocolitis
- Hirschsprung's disease
- Biliary atresia
- Choledochal cysts
- Cryptorchidism
- Wilms tumor
- Neuroblastoma

Procedures

- Inguinal herniorrhaphy in children
- Umbilical hernia repair in children
- Pyloromyotomy
- Emergency operation for malrotation

- Emergency operation for intussusception
- Excise branchial cleft anomaly
- Excise thyroglossal duct cyst
- Orchiopexy
- Open antireflux procedure
- Laparoscopic antireflux procedure
- Repair intestinal atresia/stenosis
- Repair diaphragmatic hernia
- Repair omphalocele/gastroschisis
- Procedure for meconium ileus/necrotizing enterocolitis
- Excision Wilms tumor/neuroblastoma
- Operation for Hirschsprung's/imperforate anus
- Repair esophageal atresia/tracheoesophageal fistula
- Repair deformity chest wall

Plastic Surgery

Conditions

- Abdominoplasty
- Breast reduction and enlargement
- Postmastectomy reconstruction
- Abdominal wall reconstruction

Procedures

- Skin grafting
- Revision of scars and resultant deformities
- Composite tissue transfer
- Major reconstructive procedures

Transplantation

- Immunosuppression

Procedures

- Donor organ harvesting
- Donor nephrectomy and split-hepatectomy for Tx in relatives
- Kidney transplant
- En bloc abdominal organ retrieval
- Liver transplant
- Pancreas transplant

Urology

The surgical anatomy, applied physiology and pathology of the urinary system, relevant to clinical examination, to interpretation of special investigations, to the understanding of disordered function and to the principles of the surgical treatment of urinary disease and injury.

- Urinary tract infection
- Haematuria
- Urinary calculi
- Retention of urine
- Chronic renal failure: Principles and techniques of dialysis
- Principles of renal transplantation
- Scrotal pain and scrotal swellings
- Testicular torsion
- Disorders of the prostate
- Pelvic inflammatory diseases
- Malignant disease of the urinary tract
- Ureter resection and reconstruction
- Catheterism and stenting

Conditions

- Iatrogenic ureteral injury
- Neurogenic bladder
- Urinary incontinence
- Obstructive uropathy
- Impotence
- Neoplasms of the ureter, bladder and kidney
- Neoplasms of the prostate
- Neoplasms of the testicle
- Stone disease

Procedures

- Hydrocelectomy
- Nephrectomy
- Orchiectomy
- Cystostomy
- Repair iatrogenic ureteral injury
- Prostatectomy
- Ileal urinary conduit
- Cystectomy

Gynecology

Conditions

- Gynaecological causes of acute abdominal pain
- Ectopic pregnancy
- Pelvic inflammatory disease
- Incidental ovarian mass/cyst

- Endometriosis
- Benign and malignant ovarian neoplasms
- Benign and malignant uterine neoplasms
- Cystocele
- Rectocele

Procedures

- Hysterectomy
- Salpingo-oophorectomy
- Caesarian section
- Repair cystocele
- Repair rectocele
- Surgery of infiltration endometriosis

Central Nervous System

The anatomy and physiology relevant to clinical examination of the central nervous system, to the understanding of its functional disorders, particularly those caused by cranial or spinal trauma, and to the interpretation of special investigations.

- Surgical aspects of meningitis
- Intracranial abscesses
- Intracranial haemorrhage
- Space occupying intracranial lesions and their effects
- Spinal cord injury and compression
- Paraplegia and quadriplegia: Principles of management

Conditions

- Management of acute pain
- Management of chronic pain

Procedures

- Digital nerve block
- Placement of indwelling epidural catheter
- Placement of nerve stimulator for chronic pain
- Celiac plexus blockade – percutaneous or endoscopic
- Thoracic splanchnicectomy
- Peripheral nerve block(s) other than digital

Oncology

The applied basic sciences relevant to the understanding of the clinical behaviour, diagnosis and treatment of neoplastic disease.

- Principles of molecular biology of cancer
- Carcinogenesis
- Genetic factors
- Mechanisms of metastasis
- Epidemiology of common cancers
- The role of cancer registers
- Screening for cancer
- Clinico-pathological staging of cancer and premalignant states
- Pathology, clinical features, diagnosis and principles of management of common cancers in each of the surgical specialties
- Principles of cancer treatment by: surgery, radiotherapy, chemotherapy, immunotherapy, hormone therapy
- Pain therapy management
- Terminal care of cancer patients and palliation

Radiology

- Principles of diagnostic radiography, Sonography, Computed Tomography and Magnetic Resonance Imaging and related techniques
- Principles and handling of contrast media
- Diagnostic and therapeutic interventional radiological methods
- Interventional radiological implantation of prostheses and stents into vessels, organs and other structures
- X-ray guided detection of foreign bodies
- Sonographically guided identification of unpalpable lesions
- Sonographic "Doppler" investigation of abdominal and limb vessels
- Sentinel lymph node marking and detection
- Security measures in Radiology

Evaluation & Quality

- Decision-making in surgery
- Clinical audit
- Statistics and computing in surgery
- Documentation
- Principles of research and design and analysis of clinical trials
- Critical evaluation of innovations-technical and pharmaceutical
- Health Service management and economic aspects of surgical care
- Medical/legal ethics and medico-legal aspects of surgery
- Psychological effects of surgery and bereavement
- Rehabilitation
- Screening programmes

- Principles and pharmacology of intravenous drug delivery
- Quality control and quality management
- CIRS (Critical Incident Reporting System)
- Implementation of clinical studies
- Legal aspects
- Communication with patients, relatives and colleagues

Wolfgang Feil

President Division of General Surgery