ABDOMINAL WALL SURGEON KNOWLEDGE

The specialty of Abdominal Wall Surgery requires documented and assessed **knowledge** in:

Basic knowledge of abdominal wall

- Basic anatomy of the groin
- Basic anatomy of the abdominal wall
- Physiopathology of the abdominal wall

Prevention of abdominal wall hernias

- Prevention of incisional and parastomal hernias following open abdominal procedures by small bite suture technique and/or prophylactic mesh
- Risk factors (smoking, obesity, pulmonary disease)

Diagnostic

- Differentiated pre- and postoperative use of diagnostic procedures (clinical examination, CT, MRI, Ultrasound)

Indication for abdominal wall surgery and choice of technique

- Indication for abdominal wall surgery under consideration of the current guidelines
- Tailored approach in elective and emergency abdominal wall surgery under consideration of gender, bilaterality, recurrence and other factors

Preoperative management

- Physical examination
- Exact information on previous operations including mesh or other implants
- Tests of respiratory, cardiac, renal and endocrine function
- Patient information and documentation of informed consent (including risks of technique)
- Information about principles of ERAS
- Prophylaxis of thromboembolic disease
- Antibiotic prophylaxis
- Assessment of fitness for anaesthesia and surgery
- Premedication and sedation
- Nutritional evaluation of the patient
- Preoperative conditioning of patient with risk factors

Intraoperative care

- Patient positioning (including extreme anti-Trendelenburg and other positions)
- Prevention of nerve and other injuries in the anaesthetised patient
- Principles of general and regional anaesthesia (including optimal fluid management)
- Prevention of medical and surgical complications

Postoperative management

- Pain control
- Post-operative monitoring
- Post-operative complications
- Prevention, recognition and management of complications
- Early recognition and management of sepsis
- Respiratory failure-recognition and treatment
- Nutritional support-indications, techniques, total parenteral nutrition
- ERAS protocol
- Progressive return to activity

Basic abdominal wall surgical technique and technology

- Patients' positioning
- Surgical instruments and technical OR equipment for open or laparoendoscopic access
- Instruments and technical equipment for AWS (especially cameras, light sources, insufflators, energy devices)
- Techniques of establishing access for AWS (open and laparoendoscopic)
- Detection and treatment of intraoperative complications
- Trocar positions, placement and closure techniques
- Basic ergonomics in AWS (table and monitor position)
- Suturing, stapling and sealing in AWS
- Surgical meshes
- Diathermy-principles and precautions and principles of energy sources
- Explosion hazards relating to general anaesthesia and endoscopic surgery
- Role of robotic in AWS

Abdominal wall anatomy

The surgical anatomy of the abdominal wall, the abdominal cavity 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 wall disease.

Abdominal wall hernia types

- Inguinal hernia
- Femoral hernia
- Primary ventral hernia (umbilical, epigastric)
- Rectus diatasis
- Incisional hernia
- Miscellaneous hernias
- Parastomal hernia

Procedures inguinal hernia

- Laparoscopic vs open repair
- Lichtenstein mesh repair
- Open preperitoneal hernia repair
- Shouldice non-mesh repair

- Total preperitoneal repair (TEP)
- Transabdominal preperitoneal repair (TAPP)
- Inguinal hernia repair in the context of other surgical procedures
- Inguinal hernias in emergency

Procedures ventral hernia

- Laparoscopic vs open repair
- Open sublay
- Open onlay
- Other open alternative (intraperitoneal, sandwich techniques)
- Laparoscopic intraperitoneal onlay mesh (IPOM)
- New Minimally Invasive Techniques and approaches: MILOS, e-TEP, LIRA, and ELAR
- Open anterior and posterior component separation technique
- Laparo-endoscopic anterior and posterior component separation
- Option for parastomal hernia repair
- Option for lateral hernias and those close to bone margins
- Ventral hernia repair during bariatric surgery or other concomitant procedures
- Ventral hernias in emergency

Evaluation & Quality Control

- Decision-making in surgery
- Clinical audit
- Statistics and computing in surgery
- Documentation
- Principles of research and design and analysis of clinical trials
- Principles of experimental research in AWS
- Critical evaluation of innovations-technical and pharmaceutical
- 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
- Team working, leadership
- Situational awareness, stress and fatigue