UEMS - DIVISION OF TRAUMA SURGERY

Curriculum EBSQ Trauma Surgery Examination Part 2.

Module "Polytrauma Management and Musculoskeletal Trauma Surgery"

Polytrauma Management and Musculoskeletal Trauma Surgery competency requires the ability to demonstrate a solid understanding of the basic science, pathophysiology, and pathology of the severely injured patient, to be proficient in emergency room management and in the management of injuries of the musculoskeletal system and soft tissues, as well as to have a basic knowledge in intensive care and rehabilitation in patients of all age.

The knowledge and competencies relevant to polytrauma management and musculoskeletal trauma care are listed as follows:

Initial Assessment and Damage Control Management

- Principles of pre-hospital trauma care

- Resuscitation manoeuvres including manual chest compression and defibrillation

- Surgical airway management and chest decompression

- Maintenance of circulation including techniques of vascular access

- Cardiopulmonary and pharmacological resuscitation including hemodynamic support

- Principles of blood transfusion and serology including the use of plasma substitutes, protocols for massive transfusion and the risks and complications of transfusion

- Initial management of head and brain injury, spinal injury, para- and tetraplegia and space-occupying intracranial lesions

- Principles of diagnostic radiography (including interventional radiology), ultrasonography, computed tomography, magnetic resonance imaging, angiography and embolization and related techniques

- Principles of damage control surgery

- Principles of management of pelvic and acetabular fractures

- Principles of management of spine fractures and fracture-dislocations, including spinal cord injury

- Principles of management of fractures and dislocations of the limbs

- Principles of management of open fractures and severe soft tissue damage

- Principles of ballistics and the management of gunshot and blast injuries and of burns

- Patient triage including major incident management and principles of surgery in austere conditions

Perioperative management

- Interdisciplinary primary assessment and management of the severely injured in the emergency room phase incl. priorization of diagnostic and therapeutic measures

- Correction of coagulopathy and haemolytic disorders and the prevention and treatment of thromboembolic disease

- Knowledge of indications, technique, and reporting of ultrasonography incl. FAST

- Knowledge of indications and techniques of interventional radiology

- Principles of management of closed and penetrating head injuries

- Management of blunt and penetrating injuries to the pelvis, including perineal trauma

- Classification and management of injuries of the extremities

- Pathophysiology and complications of fracture healing

- Deep insight in biomechanical aspects and prerequisites for operative fracture care

- Diagnosis and treatment of dislocations of large and small joints

- Principles of closed fracture reduction incl. ligamentotaxis

- Principles of external fixation, open reduction and internal fixation of fractures and fracture-dislocations and principles of indication and techniques of joint replacement

- Classification of surgical wounds and the principles of wound management

- Prevention and treatment of infections, especially in the case of open fractures

- Principles of amputation

- Management of mangled extremities and traumatic amputation

- Classification and management of burns

- Principles of skin grafting and flaps

- Principles of tendon and peripheral neurovascular repair

- Management of trauma in pregnancy

- Principles and techniques of pain control

- Principles, indications, and choice of antibiotic therapy

- Postoperative monitoring and the prevention, recognition, and management of complications with special focus on bleeding, wound healing disturbances, infection, and disturbances of blood supply

- Prevention, diagnosis, and management of compartment syndrome in the limbs

- Principles of pathophysiology of systemic inflammatory response syndrome, sepsis, sepsis syndrome and septic shock

- Knowledge of pathophysiology of osteoporosis and principles of conservative and operative treatment

- Principles and practice of geriatric fracture care

- Knowledge of characteristics of the growing skeleton, conservative treatment of fractures and dislocations of the immature skeleton and indications for operative treatment

- Principles and practice of treatment of fractures in children and adolescents

- Principles of postoperative physiotherapy and mobilization

- Principles of rehabilitation and reintegration

- Principles and management of posttraumatic stress disorder

Professional skills

- Communication with patients, relatives, and colleagues

- Ethics and medicolegal aspects of polytrauma and musculoskeletal trauma care

- The principles of informed consent

- Psychological aspects of polytrauma and musculoskeletal trauma care and bereavement

- Coordination and leadership of a multidisciplinary trauma team

- Quality control including active involvement in clinical audits, trauma care networks and critical incident reporting systems

- Principles of research and implementation of clinical trials and technical innovations