Head of the Department of Anesthesiology and Reanimatology No.1 named after Valeriu Ghereg Professor, S.Şandru

**QUESTIONS FOR PRACTICAL CLASSES AND FINAL EXAM**

**(Perioperative medicine)**

**FOR VIth YEAR STUDENTS FOR THE 2021-2022 ACADEMIC YEAR**

**Preoperative evaluation and risk assessment in patients undergoing surgery.**

1. The importance of preoperative examination.
2. Patient's medical history: past medical history, family history, and social history.
3. Preoperative cardiovascular evaluation.
4. Preoperative pulmonary evaluation.
5. Preoperative tests for elective surgery.
6. Perioperative management of cardiovascular medication.
7. Perioperative management of the patient with sleep apnea.
8. Perioperative management of the patient with diabetes mellitus.

**Perioperative pain management**

1. Definition and classification of pain.
2. The physiological effects of unrelieved pain.
3. Principles of acute pain assessment. Pain assessment tools.
4. Multimodal perioperative pain management. WHO analgesic ladder.
5. Patient-controlled analgesia.
6. Perioperative pain management in children.
7. Perioperative pain management in elderly patients.
8. Pain management in the opioid-dependent patients.
9. Perioperative pain management in patients with acute neuropathic pain.

**Perioperative anemia.**

1. Perioperative blood management.
2. Risks of anaemia and blood transfusion in the perioperative period.
3. Causes and mechanisms of anaemia.
4. Pathophysiology of anaemia.
5. Assessment of preoperative anaemia.
6. Management of preoperative anaemia.
7. Point of care testing: full blood count, viscoelastic testing
8. Appropriate perioperative blood transfusion thresholds.
9. Strategies to minimize blood transfusions in the preoperative period.
10. Preoperative management of Jehovah’s Witness patient.

**Rational use of antibiotics in perioperative medicine: fundamental aspects and practical issues.**

1. Molecular mechanisms of bacterial resistance to antibiotics.
2. The importance of rational use of antibiotics. The impact of infections with a multidrug resistant bacteria.
3. Prevention of cross transmission of microorganisms.
4. Initial antibiotic therapy and de-escalation of empirical therapy.
5. Diagnostic criteria for nosocomial infection.
6. Perioperative antibiotic prophylaxis.
7. Mechanism of action of antibiotics. Most frequent encountered multidrug resistant bacteria in ICU settings.
8. Complications of antibiotherapy.

**DVT/PE prophylaxis in the surgical patient.**

1. Deep vein thrombosis. Causes, pathogenesis, complications of DVT.
2. [Deep venous thrombosis risk factors.](https://www.ncbi.nlm.nih.gov/books/NBK470215/)
3. Deep vein thrombosis prophylaxis in orthopedic surgery.
4. DVT prophylaxis in non- orthopedic surgery.
5. Pharmacological deep vein thrombosis prophylaxis in medical patients.
6. Mechanical methods for prophylaxis of deep vein thrombosis.
7. Contraindications for DVT prophylaxis.
8. Perioperative management of oral anticoagulants.

**Advanced perioperative monitoring and elements of computational medicine.**

1. Hemodinamic monitoring.
2. Respiratory function monitoring.
3. Biomarkers in perioperative setting.
4. Intraoperative neuromonitoring and monitoring of neuromuscular blockade.
5. Mathematical and computer modeling as corner stones for modern and future clinical practice.
6. Artificial intelligence as a challenge for anesthesia and intensive care practitioners.

**Patient safety**

1. Definition of healthcare quality and patient safety.  
   2. WHO innitiative on patien safety. WHO surgical patient safety checklist.  
   3. Helsinki declaration on patient safety in anaesthesia.  
   4. Durg errors in anaesthesia and prevention measures.  
   5. Intraoperatively crisis checklists.  
   6. Patient safety in the operation room: patient positioning for surgical procedures.  
   7. Patient safety for anaesthesia outside of the operating room.  
   8. Safety of intrahospital transport of critically ill patients.