

Exam questions from the subject

ANAESTHESIOLOGY AND INTENSIVE CARE MEDICINE

for V. year of VL, JLF UK

Revision 01/2026

I.

1. Organisation of pre-hospital emergency care, chain of survival
2. BLS
3. ALS, shockable rhythms in circulatory arrest
4. ALS, non-shockable rhythms in circulatory arrest
5. Reversible causes of circulatory arrest- pathophysiology, diagnostics, therapy
6. Management of the polytraumatized patient in prehospital care, CPR of the polytraumatized patient
7. CPR of children
8. CPR of pregnant women, physiological changes of pregnant women in the context of CPR, specifics of CP
9. Airway securing in emergency medicine indications, methods, advantages, disadvantages, complications
10. Post-resuscitation care and Post-resuscitation syndrome
11. Shock in general, definition, types, pathophysiology, causes
12. Hypovolemic shock
13. Cardiogenic forms of shock
14. Distributive forms of shock
15. Obstructive forms of shock
16. Stroke
17. Epilepsy, status epilepticus, other convulsive conditions
18. Acute coronary syndromes
19. Acute cardiac failure, forms of cardiogenic pulmonary edema - SCAPE, FOSPE
20. Acute complications of chronic obstructive pulmonary diseases, asthma, COPD
21. Choking and aspiration syndromes in adults and children
22. Pneumothorax, fluidothorax- pathophysiology, types, diagnosis therapy
23. Abdominal acute episodes
24. Acute conditions related to pregnancy
25. Maternal and neonatal care after delivery

26. Chest injuries
27. Abdominal injuries
28. Head and spinal injuries
29. Head and spinal injuries
30. Injuries to the extremities
31. Electrical injuries
32. Blast injuries, crush syndrome, gunshot injuries
33. Chemical and biological agent injuries
34. Mass casualty incident
35. Intoxications in general, toxidromes, differential diagnosis, antidotes, elimination method
36. Intoxication with drugs (opiates, benzodiazepines, analgesics, antihypertensives, antidiabetics, antidepressants), alcohols, intoxication with gases, organophosphates
37. Drug addiction and its acute consequences
38. Allergic, anaphylactic reactions
39. Gastrointestinal bleeding
40. Diff. dg. disorders of consciousness
41. Diff dg. dyspnoea
42. Diff dg. chest pain
43. Diff dg. abdominal pain

II.

1. Pain anatomy, pathways, types, causes, rating scales
2. Treatment of acute pain
3. Inhalation anaesthetics
4. Intravenous anaesthetics
5. Analgesics in anaesthesia
6. Muscle relaxants
7. Local anaesthetics, toxicity of local anaesthetics
8. Anaesthetic preoperative examination, preoperative preparation, ERAS
9. General anaesthesia, post-anaesthetic care
10. Regional anaesthesia - neuroaxial blockade and peripheral blockades
11. Monitoring during anaesthesia
12. Anaesthesia of specific groups: neurosurgery
13. Anaesthesia of specific groups: neonatal and paediatric
14. Anaesthesia of specific groups: geriatric patient
15. Anaesthesia of specific groups: gynaecology and obstetrics
16. Anaesthesia of specific groups: traumatology and orthopaedics
17. Anaesthesia of specific groups: stoma surgery, ENT and ophthalmology
18. Anaesthesia for specific groups: laparoscopic surgery, robot-assisted surgery
19. Anesthesia for specific groups: thoracic surgery
20. Complications during anaesthesia

III.

1. Basic monitoring in intensive care medicine, basic hemodynamic monitoring, principles of oxygen delivery to tissues
2. Recognition of the critically ill patient, EWS (early warning system), ABCDE procedure and support of vital signs
3. Respiratory failure and ARDS
4. Artificial pulmonary ventilation
5. Status asthmaticus, COPD exacerbation diagnosis, treatment
6. Tachycardia diagnosis treatment according to ERC
7. Bradycardia diagnosis and treatment according to ERC
8. Body fluids, water and sodium balance disorders, disorders of other essential minerals (potassium, calcium, phosphorus, magnesium)
10. Fluid treatment options - crystalloid and colloid solutions
11. Disorders of acid-base balance
12. Diabetic patient in intensive care (hypoglycemia, hyperglycemia, ketoacidosis) diagnosis, treatment
13. Acute and chronic renal failure, elimination methods
14. Acute hepatic failure
15. Acute pancreatitis
16. Nutrition in intensive care medicine (macronutrients, micronutrients, routes of administration, nutritional goals)
17. Primary and secondary brain injury, intracranial hypertension, cerebral edema
18. Principles of neurointensive care, monitoring
19. Status epilepticus
20. Brain death, donor and transplantation program
21. Delirium in ICU, types, diagnosis, therapy
22. Infections in the ICU
23. Sepsis and septic shock, MODS
24. Principles of ATB therapy in intensive care medicine
25. Pharmacological treatment of circulatory failure and Mechanical support for circulatory failure
25. Use of viscoelastic methods, hemorrhagic diathesis in intensive care
26. Blood product administration procedure, massive transfusion protocol, post-transfusion reactions

Literature:

ERC guidelines CPR 2025: <https://www.erc.edu/science-research/guidelines/guidelines-2025/guidelines-2025-english/>

Stoelting RK, Miller RD Basics of anesthesia, Churchill Livingstone Elsevier, Philadelphia, 2007, 697 pp Barash, P.G. et al. Clinical anesthesia. 7th ed., Philadelphia: Lippincott Williams & Wilkins, 2013.

Singer, M., Webb, A. R. Oxford Handbook of Critical Care. Oxford: Oxford University Press, 2009, Third edition, 668 s