

Intensive Care Exam Topics

Master's study programme, General Medicine, Medical Faculty, Masaryk University Brno

CPR	
A.	Basic Life Support (BLS). Foreign Body Airway Obstruction Algorithm (FBAO)
B.	Defibrillation (Principles, indications). BLS + AED algorithm (Automatic External Defibrillator)
C.	Airway management
D.	Advanced Life Support Algorithm (ALS)
E.	ALS - Bradycardia Algorithm
F.	ALS - Tachycardia Algorithm
G.	Drugs for ALS (Indication, dosing, routes of drug administration). Post-resuscitation Care
H.	Reversible causes of cardiac arrest - 4H & 4 T (management during ALS). PEA (Pulseless Electrical Activity)

Clinical Situations	
1.	Respiratory Failure (Background, classification). Oxygen Therapy (Equipment, indication, specific situation (COPD, ACS))
2.	Principles of Artificial Ventilation (Invasive+Non-invasive)
3.	ARDS (Oxygenation Failure)
4.	Severe COPD a asthma (Ventilatory Failure)
5.	Circulatory Failure – Shock (Definition, types, management and monitoring)
6.	Vasoactive drugs (vasopressors, inotropes). Fluid Therapy (Crystalloids, Colloids)
7.	Arrhythmias in ICU (Diagnostics, drugs, cardioversion, cardiac pacing)
8.	Acute Heart Failure. Cardiogenic Shock
9.	Sepsis. Septic Shock
10.	Anaphylactic Shock. Obstructive Shock (Massive Pulmonary Embolism)
11.	Hemorrhagic Shock (Blood Products Therapy). Massive Bleeding (Life-Threatening Hemorrhage)
12.	Disorders of Consciousness (Definition, differential diagnostics, management). Seizures
13.	Acid-Base Disorders (Approach, definitions, simple disorders, therapy). Electrolytes Disorders (Hyperkalemia, hypo- and hyponatremia)
14.	Nutrition in Intensive Care
15.	Acute Renal Failure -Acute Kidney Injury (Renal Replacement Therapy (IHD x CRRT))
16.	Acute Liver Failure (Approach, differential diagnostics and management)
17.	Hospital Acquired Infection (Definition). Principles of ABX (Antibiotics) treatment in Intensive Care
18.	Severe Brain Trauma (Brain edema, Intracranial Hypertension, Donor Program - principles)
19.	Severe Trauma-Polytrauma (Approach and management)
20.	Poisoning (General approach, eliminations, antidotes). Alcohols, CO and Acetaminophen poisoning