

## Intensive Care Exam Topics

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

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

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