

ANNOTATION
work program of the academic discipline

"Critical Care Medicine"

Speciality	05/31/01 General medicine
Number of credits	In accordance with the RUP
Interim certification form (test/exam)	Test

1. The purpose of studying the discipline

The purpose of mastering the academic discipline of anesthesiology, resuscitation, intensive care is to acquire knowledge in the field of diagnosis and provision of medical care to adults and adolescents in emergency conditions.

2. Summary of the discipline

Cardiopulmonary resuscitation in special conditions (opioid overdose, systemic toxicity of local anesthetics, pregnancy, etc.). Features of cardiopulmonary resuscitation in children of different ages. Modern monitoring capabilities in critical care medicine. Basic monitoring in anesthesiology and intensive care. Automatic ECG analysis. Pulse oximetry - the principle of the method, application in the hospital and at the prehospital stage. Capnography – the principle of the method, capnography in forward and lateral flow, application for assessing the adequacy of ventilation and during cardiopulmonary resuscitation. Advanced monitoring - invasive measurement of blood pressure, measurement of the concentration of anesthetics, oxygen and carbon dioxide during inhalation and exhalation, assessment of the depth of anesthesia (BIS monitoring, Entropy, acoustic evoked potentials, etc.).

Methods of assisted and artificial circulation in anesthesiology and intensive care. Intra-aortic balloon counterpulsation – principle of the method, indications, application in cardiogenic shock. Fundamentals of artificial circulation during heart surgery.

Current approaches to the treatment of acute respiratory distress syndrome (ARDS). Etiology, pathogenesis, clinical picture, diagnosis, modern principles of intensive care for ARDS. Extracorporeal membrane oxygenation (ECMO) - the principle of the method, application in ARDS.