Materials of intermediate certification of students in the discipline "Anesthesiology, resuscitation and intensive therapy"

1. Toxicological disease.

1.1 Definition of the concept of toxicological disease. Etiology. Pathogenesis. Treatment.

1.2 Stages and clinical and pathogenetic principles of treatment of toxicological diseases.

1.3 Poisons and their entry into the body. Intoxication, detoxification.

1.4 Principles of diagnosis of acute exogenous poisoning.

1.5 Diagnosis and intensive care of alcohol poisoning and its surrogates.

1.6 Diagnosis, clinic and intensive care of organophosphate compounds poisoning.

1.7 Diagnosis, clinic and intensive therapy of acid and alkali poisoning (acetic acid, etc.).

1.8 Diagnosis, diagnosis and intensive care of psychotropic drugs poisoning.

1.9 Diagnosis and principles of intensive care for drug poisoning.

1.10 Diagnostics and principles of intensive therapy of poisoning with biological and vegetable poisons (snake bites, insects, mushroom poisoning).

1.11 Principles and methods of detoxification of the body. Methods of conducting.

1.12 First aid in case of poisoning with household and industrial poisons. Prevention methods.

1.13 Methods of extracorporeal detoxification of the body. Indications for conducting. Complications and their prevention.

1.14 Exotoxic shock, principles and methods of intensive therapy.

1.15 Endogenous intoxication syndrome of the body. Etiology. Pathogenesis, Principles of therapy.

2. Fundamental principles of blood transfusion. Detoxification methods. Transfusion treatment (infusion therapy).

2.1. Basics of water-electrolyte and protein metabolism.

2.2 Water sectors of the body. The main biophysical laws of the distribution of fluid in the water sector.

2.3 Definition of the concepts of osmolality and colloid osmotic pressure (their clinical significance).

2.4 Determination of infusion-transfusion therapy. Indications for infusion-transfusion therapy.

2.5 Infusion media. Classification.

2.6 Volume-substituting solutions (colloid), classification, indications for use.

2.7 Crystalloid solutions, classification, indications for use.

2.8 Violations of water and electrolyte balance and methods for its correction.

2.9 Principles of parenteral nutrition.

2.10 Principles of conducting and controlling infusion-transfusion therapy.

2.11 Complications and prevention of infusion-transfusion therapy.

3. Terminal states.

3.1 The concept of a terminal state. Etiology, Pathophysiology. Classification.

3.2 Clinical and morphological characteristics of terminal states.

3.3 Diagnosis of clinical death.

3.4 Principles and algorithm of cardiopulmonary cerebral resuscitation (ABCDD).

3.5 Technique of the complex resuscitation measures.

3.6 Criteria for the effectiveness of resuscitation.

3.7 Legal aspects of resuscitation benefits (Instructions on the determination of the moment of death, the waiver of the use or termination of resuscitation measures).

3.8 The concept of brain death. Principles of diagnosis. (The Law on the death of the brain).

3.9 Post-resuscitation disease. Etiology, pathophysiology, clinic.

3.10 Comatose states. Etiology. Pathogenesis. Grading severity (Glasgow scale).

3.11 Principles of intensive care for comatose conditions.

3.12 Diabetic coma. Differential diagnosis and intensive care.

3.13 Shock, definition, classification, clinical criteria. Pathogenetic principles of therapy.

3.14 Principles of intensive care for hypovolemic shock (hemorrhagic, burn, traumatic).

3.15 Principles of intensive care for cardiogenic shock.

3.16 Principles of Intensive Therapy for Septic Shock

3.17 Principles of intensive care for anaphylactic shock.

3.18 Differential diagnosis of shock, collapse, syncope. Urgent Care.

4. Theoretical foundations of the theory of pain (nociception).

 Principles and methods of analgesia.

4.1 Non-narcotic analgesics. Characteristics of the group. Indications for use, dosage, side effects.

4.2 Narcotic analgesics. Characteristics of the group. Indications for use, dosage, side effects.

4.3 Local anesthesia. Types, indications for use. Local anesthetics.

4.4 Conducting anesthesia (blockade of nerve trunks and plexuses). Preparations for conduction anesthesia. Indications.

4.5 Methods of regional anesthesia (epidural and spinal anesthesia). Indications. Complications.

4.6 General anesthesia techniques. Indications. Complications. Prevention of side effects. The concept of neuroleptic algesia and ataralgesia.

4.7 Inhalation anesthetics. Characteristics of basic drugs.

4.8 Non-inhalation anesthetics (intravenous anesthetics). Characteristics of basic drugs.

4.9 Pain relief of acute myocardial infarction.

5. Prehospital treatment of patients.

5.1. Definition and scientific content of the concept "pre-hospital stage".

5.2. The definition and content of the concepts of "emergency medical care" and "emergency medical care."

5.3. The problem of "disaster medicine". The medical content of the concept.