

## LIST OF PRACTICAL STUDIES

1. Basics of asepsis and antiseptics. Personal safety in first aid.
2. General principles of first aid.
3. Terminal states. Cardiopulmonary resuscitation.
4. First aid for wounds.
5. First aid for bleeding and blood loss.
6. First aid for asphyxia.
7. First aid for dislocations and fractures.
8. First aid for head and chest injuries.
9. First aid for abdominal injuries. Syndrome of prolonged compression ("Crush syndrome").
10. First aid for traumatic shock, anaphylaxis.
11. First aid for burns and frostbite.
12. First aid for electric shock, lightning strike, heat and sunstroke.
13. First aid for poisoning, insect and animal bites.
14. First aid for disorders of consciousness and convulsions.
15. First aid for asthma attack, acute heart attack.

## CONTENT OF THE EDUCATIONAL MATERIAL

### **1. Basics of asepsis and antiseptics. Personal safety in first aid**

Introduction to the discipline «First Aid». Types of medical aid. The concept of first aid. Legislative aspects of first aid.

General provisions of asepsis and antiseptics. Source of infection, ways and factors of transmission. Prevention of infections associated with first aid.

Types of modern antiseptics. General characteristics of antiseptics. Rules of the hygienic antiseptic skin of the hands. Personal protective equipment. Compliance with the rules of personal safety when providing first aid to casualties.

Ethics and deontology in first aid.

### **2. General principles of first aid**

Rules and procedure for survey of the casualty. Primary survey. Secondary survey. The sequence of survey: head, neck and cervical spine, chest, abdomen, pelvis, limbs, thoracic and lumbar spine.

Assessing a casualty. The main criteria for assessing impaired consciousness, breathing, blood circulation. Characteristics of the pulse, research technique on the radial and carotid arteries. Blood pressure, indicators, characteristics, measurement technique. Types and frequency of breathing, counting the number of respiratory movements, the concept of pulse oximetry.

### **3. Terminal states. Cardiopulmonary resuscitation**

The concept of terminal states. Symptoms of clinical and biological death. Indications and contraindications for resuscitation.

The concept of cardiopulmonary resuscitation. Carrying out basic resuscitation (open airway, chest compressions, rescue breaths). Criteria for the effectiveness of cardiopulmonary resuscitation. Mistakes and complications arising

from cardiopulmonary resuscitation. Indications for termination of cardiopulmonary resuscitation. Features of cardiopulmonary resuscitation in children of different ages.

#### **4. First aid for wounds**

Wounds, general characteristics, classification. Principles of first aid for various types of wounds. The main types of dressing of soft bandages. Rules and techniques for dressing of soft bandages to various parts of the body. Bandages. Bandages from improvised materials.

#### **5. First aid for bleeding and blood loss**

Bleeding: classification by nature, by reason, by the nature of communication with the external environment, by the time of occurrence. The concept of blood loss, the main signs of acute blood loss. Methods for stopping bleeding. Ways to temporarily stop bleeding. Rules and technique for applying a hemostatic tourniquet, pressure bandage. Stop bleeding with the help of improvised means. First aid for bleeding from the nose, ear.

#### **6. First aid for asphyxia**

Asphyxia, types, main features. Classification of asphyxia. First aid for strangulation, obturation, compression asphyxia.

Drowning: types, causes of development. Providing first aid for drowning.

First aid for blocking airway object. Features of first aid in young children.

#### **7. First aid for dislocations and fractures**

Dislocations: definition, signs, first aid.

Fractures: definition, signs, first aid. Rules for applying transport splints and splints made of an available hard material.

Features of transport immobilization in fractures of the femur, humerus, spine, collarbones, ribs, pelvic bones, lower leg, foot, forearm, hand, skull. Transportation of patients and casualties with bone fractures, features of shifting.

#### **8. First aid for head and chest injuries**

Head injuries, general characteristics, types. Signs of traumatic brain injury. Providing first aid for head injuries. Features of first aid for injuries of the eye, nose, ear.

Chest injuries, general characteristics, types. The main signs of chest trauma. The concept of pneumothorax, hemothorax. Providing first aid for chest injuries. Applying dressing in case of open trauma of the chest, wound with a foreign body.

Transportation of patients and casualties with head and chest injuries.

#### **9. First aid for abdominal injuries. Syndrome of prolonged compression («Crush syndrome»)**

Abdominal injuries: general characteristics. The main signs of abdominal trauma, closed abdominal trauma with signs of internal bleeding and organ damage. Providing first aid for abdominal injuries. Applying dressings for open trauma of the abdomen, a wound with a foreign body.

Transportation of patients and casualties with abdominal injuries.

Syndrome of prolonged compression, concept, main features, first aid, features of transport immobilization.

#### **10. First aid for traumatic shock, anaphylaxis**

Shock: definition, classification according to the type of circulatory disorders, according to the severity, according to the mechanism of development.

Traumatic shock: causes, signs, stages, first aid. Measures to prevent the development of traumatic shock.

Anaphylaxis. Anaphylactic shock: causes, signs, first aid.

### **11. First aid for burns and frostbite**

Burns: general characteristics, types, classification of thermal burns. Rules for determining the area of the burn. First aid for thermal and chemical burns. Features of first aid for burns of the upper respiratory tract.

Cold injury (hypothermia, frostbite): general characteristics, classification, main features, severity of frostbite, first aid.

### **12. First aid for electric shock, lightning strike, heat and sunstroke**

Electrical injury: local and general manifestations, first aid, safety precautions.

Lightning strike, heat stroke, sunstroke: general and local signs, first aid. Body temperature, the concept of thermometry.

### **13. First aid for poisoning, insect and animal bites**

Acute poisoning, types, signs. Providing first aid in case of poisons entering the human body through the respiratory tract, digestive tract, skin. Food poisoning. Poisoning by poisonous plants and mushrooms, first aid.

Bites of poisonous insects, snakes, first aid. Rabies. Providing first aid for bites (saliva) of animals suspected of rabies.

### **14. First aid for disorders of consciousness and convulsions**

Fainting, collapse: possible causes, main manifestations, first aid.

Hypoglycemia: manifestations, causes, first aid.

Signs of violation of acute cerebral circulation, the principles of first aid.

Convulsions: types, first aid.

### **15. First aid for asthma attack, acute heart attack**

Asphyxiation, other respiratory disorders: main signs, principles of first aid.

Rules and technique of using an inhaler.

Acute heart attack: main signs, first aid.

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