CONTENTS OF EDUCATIONAL MATERIAL

1. Organizational structure of medical services in the army. Gunshot wound and its treatment at different levels of medical care

Organizational structure of medical services in the army. Levels of medical care and type of medical aid provided. Triage: definition, types and its role in military medical service.

Wound ballistics and mechanism of gunshot injuries. Zones of soft tissues injury in a gunshot wound. Morphology of a wound channel (entrance and exit holes, characteristic of zones). Concept about primary and secondary microbic wound contamination. Medical care of gunshot wounds on the battlefield and at levels of medical care. Early prevention infectious complications. Modern views on wound debridgement.. Indications and contra-indications to wound debridgement. The early, delayed and late wound debridgement. Primary and secondary wound healing. Ways of gunshot wounds closure. Primary, delayed, and secondary (early and late) sutures. Conditions for primary wound sutures application. Most frequent mistakes during wound debridgement.

2. Infectional complications of gunshot wounds. Tetanus. Blood vessels injuries, bleeding, treatment at different levels of medical care

Concept about a wound infection, the factors contributing to the wound infection development. Wound microflora. Local purulent infection. Sepsis and toxico-resorptive fever characteristics. Sepsis clinical features. Treatment of gunshot wounds infectious complications. Anaerobic wound infection, local and general manifestations. Characteristic of various clinical forms. Prevention of an anaerobic infection. Specific and nonspecific treatment. Operative and local treatment. Antibacterial therapy. Treatment outcomes. Tetanus, etiology and pathogenesis, local and general symptoms. Tetanus diagnostics, prevention and treatment principles at different levels of medical care. Tetanus complications and outcomes.

3. Extremities gunshot injuries, treatment at different levels of medical care. Blast injuries Crush syndrome

Gunshot fractures frequency, classification, clinic, diagnostics and treatment at different levels medical care. Closed and open traumatic bone fractures: clinic, diagnostics and treatment. Gunshot injuries of joints, their classification. General and local clinical manifestations of joints injuries. Complications of joints gunshot injuries. First aid and treatment. Gunshot wounds of a hand, foot and their treatment at different levels of medical care. Symptoms and diagnostics of nerve injuries. Immobilization peculiarities after nerve injuries. Nerve injuries treatment. Transport immobilization, aims. Indications for a transport immobilization. Mistakes and complications of transport immobilization application.

Crush syndrome, etiology, pathogenesis, classification, stages, clinical features. Clinical manifestation dependence on the size of the damaged tissues, intensity and duration of compression. Modern methods of treatment at different levels of medical care. Intensive therapy of crush syndrome. Classification of ischemia severity. Indications to operative treatment depending on ischemia degree. Types of operations.

4. Head and spine closed and gunshot injuries. Treatment at different levels of medical care

Closed injuries of a skull and brain, frequency, classification. Clinical features of brain concussion, contusion and compression. Skull fracture. Gunshot wounds of the skull and brain, their classification and clinic. First aid, triage and treatment of the patients with brain injuries. Frequency, symptoms and treatment of a spinal cord closed injuries. Gunshot wound of a spinal cord. Clinical picture and diagnostics. Clinical

periods. First aid on the battlefield, treatment. Peculiarities of evacuation. Transport immobilization of patients with spinal injuries

5. Closed and gunshot injuries of the thorax. Treatment at different levels of medical care

Thoracic injuries frequency and classification. Clinical manifestations of different wounds and injuries types, their diagnostics. The most common early complications: hemothorax, pneumothorax (closed, opened, tension), subcutaneous and mediastinal emphysemas. Pathophysiologyof these complications development. Pleuro-pulmonary shock or syndrome of cardiopulmonary disturbances. Late complications of thoracic gunshot injuries. Closed injuries of a thorax. Multiple ribs fractures and ribs fractures of edges with a «the costal valve» formation. Triage and treatment at different levels of medical care.

6. Closed and gunshot injuries of abdomen and pelvis. Treatment at different levels of medical care Traumatic shock.

Abdominal injuries frequency and classification. Clinical manifestations of open abdominal injuries. Symptoms of penetrating abdominal wounds. Shock, bloodloss and peritonitis, their value in an outcomes prognosis. A clinical picture of the closed abdominal injuries. The first aid to the patients with abdominal injuries. Treatment at different levels of medical care. Open and the closed injuries to the pelvis and pelvic organs. Classification of the pelvic injuries. Diagnostics of pelvic gunshot fractures with and without pelvic organs injuries. Complications of gunshot pelvic injuries. First aid and treatment at different levels of medical care. A transport immobilization of patient with pelvic injuries.

Definition of traumatic shock, its frequency, severity degrees. Modern concept of traumatic shock etiology and pathogenesis. Traumatic shock classification by weight it severity. Shock clinical manifestations in various localizations of injuries. Importance of modern anesthesiology and resuscitation achievements in shock treatment. Modern methods of haemodynamics, breathing and metabolism disturbances correction. Shock treatment at different levels of medical care. Early shock prevention. Role of blood transfusion

7. Thermal injuries (burns, cold injuries). Treatment at different levels of medical care

Skin anatomy. Burns classification by depth of injury. Degrees of burns. Determination of total area of burns and area of deep burns. Infusion therapy of burn shock. Criteria of adequate infusion therapy and calculation of liquid deficiency. Clinical indicators of burn shock resolution. Prognostic signs. Radiologic burns. Triage and treatment at different levels of medical care. Cold injuries. Systemic hypothermia, diagnosis, treatment. Peripheral cold injuries, types, diagnosis, treatment.