

**"NORTH-OSSETIAN STATE MEDICAL ACADEMY"**  
**Ministry of Health of Russian Federation**

**Abstract of the program of discipline**  
**«Traumatology, orthopedics»**

Of the main professional educational program of higher education - specialty program in the specialty 31.05.01 General Medicine, approved in 24 May 2023.

Form of education: Full-time

The period of development: 6 years

Department of Traumatology and Orthopedics

**1. The purpose of the discipline.**

The purpose of mastering the discipline is to acquire general professional and professional competencies in the prevention of injuries and orthopedic diseases, the organization of traumatological and orthopedic care in Russia, the provision of first aid for injuries of the musculoskeletal system, the basics of diagnosis and prevention of congenital and acquired deformities of the musculoskeletal system.

**2. The place of discipline in the structure of the educational program:**

The discipline "Traumatology and Orthopedics" refers to the basic part of the Block 1 program.

**3. The total labor intensity of the discipline is 6 credits, 216 hours**

**4. Semester 10, 11.**

**5. Requirements for the results of mastering the discipline:**

The process of studying the discipline is aimed at the formation and development of competencies:

**GCC-9, GCC-11, PC-5, PC-6, PC-9, PC-10, PC-14.**

As a result of mastering the discipline, the student should

**know:**

-the main issues of traumatism, the organization of traumatology and orthopedic care in Russia;

- classification of injuries and diseases of the musculoskeletal system;
- frequency, causes, mechanism of injuries of the musculoskeletal system;
- etiology and pathogenesis of major orthopedic diseases;
- modern methods of diagnosis of injuries and diseases of the musculoskeletal system;
- general principles of treatment of injuries and diseases of the musculoskeletal system;
- the most common complications in traumatology and orthopedics and methods of their prevention;
- prognosis and average recovery time for typical injuries and orthopedic diseases;
- methods of rehabilitation of patients with the most common orthopedic diseases and injuries;

- deontological and legal features of working with orthopedic and traumatological patients.

***be able to:***

- apply general principles of treatment of injuries and diseases of the musculoskeletal system
- to make a preliminary diagnosis of typical injuries of the musculoskeletal system;
- assess the severity of injuries and diseases of the musculoskeletal system and decide on the place of further treatment;
- provide first aid for injuries and diseases of the musculoskeletal system;
- participate in the provision of first aid for injuries of the musculoskeletal system in mass disasters.

***to own:***

1) The method of examination of patients with injuries of the musculoskeletal system. To make a preliminary diagnosis based on clinical signs:

- fracture of limbs;
- pelvic fracture;
- spinal fracture;
- dislocation of the shoulder, forearm, hand, fingers, hip, shin, foot.

2) The method of making a preliminary diagnosis of "dislocation" (shoulder, forearm, hand, fingers, hip, shin, foot) according to clinical signs.

3) The method of making a preliminary diagnosis of a rupture of the Achilles tendon, the biceps tendon of the shoulder.

4) The method of making a presumptive diagnosis (damage to nerves and major vessels of the limb in limb fractures.

5) The methodology for identifying life-threatening (vital) disorders:

- traumatic shock;
- acute blood loss;
- respiratory disorders;
- cardiac arrest;
- fat embolism;
- pulmonary embolism.

6) Methods of examination of patients with the consequences of injuries and diseases of the musculoskeletal system:

7) Assume typical orthopedic diseases:

- congenital dislocation of the hip;
- congenital clubfoot;
- congenital torticollis;
- scoliosis;
- osteochondrosis of the spine;
- deforming arthrosis of large joints; - static deformations of the feet.

8) The method of immediate elimination of life-threatening (vital) disorders in traumatic shock, bleeding, respiratory failure, cardiac arrest:

9) The methodology of anti-shock measures;

10) The method of artificial lung ventilation by the "mouth to mouth" or "mouth to nose" method;

11) The method of external heart massage;

12) The method of fixing the language when it is trapped; 13) Stop external bleeding by temporary means:

- by pressing the vessel in the wound;

- pressing the vessel throughout in typical places:
- brachial artery;
- femoral artery;
- temporal artery;
- common carotid artery;
- by applying a pressure bandage;
- fixation of the limb in a certain position;
- tamponade wounds;
- by applying a clamp to a bleeding vessel.

14) The method of carrying out novocaine blockades in traumatic shock:

- vagosympathetic;
- perinvertebral;
- in - phase;
- case
- anesthesia of the fracture site of the diaphysis of long tubular bones.

15) The method of transport immobilization for fractures and dislocations by service means (Dieterichs tire, Kramer tire, kerchief), and by improvised means.

16) Possess the ability to give the correct position to a patient with injuries to the limbs, pelvis, spine;

17) It is necessary to apply an aseptic bandage on a soft tissue wound and on a wound with open fractures of the extremities.

18) Skills to apply contour bandages for burns.

19) How to apply sterile bandages for frostbite;

20) How to apply an occlusive dressing on the chest with an open pneumothorax;

21) The method of providing medical care at the scene of a fracture, dislocation, vascular damage.

22) Apply a plaster splint on the distal part of the upper and lower extremities with skills.

23) Skills to assess the condition of the limb in a plaster cast.

24) Skills of removing a plaster cast in a threatening condition of the limb;

25) Skeletal traction removal skills;

26) The ability to hospitalize a patient with a musculoskeletal system injury (make a decision on the need for hospitalization, determine the order of hospitalization of victims according to the severity of the condition with mass lesions, determine the place of hospitalization of the patient depending on the existing injuries);

27) Refer patients with the consequences of trauma or orthopedic diseases for consultation or hospitalization;

28) Refer children with congenital hip dislocation, congenital clubfoot, congenital muscular torticollis for consultation.

## 6. Educational technologies

- Lectures, practical classes, participation in medical conferences and rounds, analysis of clinical cases, presence and participation in providing assistance to patients with injuries and diseases of the musculoskeletal system at the outpatient stage (in the emergency room and in the polyclinic), and in the hospital, the use of training computer programs, solving situational problems, analysis and description of radiographs, preparation of presentations, passing test control of knowledge;
- examples of interactive forms and methods of conducting classes:
- videos (transport immobilization, pre-medical care for injuries, methods of dislocation reduction and fracture reposition, osteosynthesis, joint replacement).
- A set of situational tasks.

- A set of radiographs.
- A computer program for the test control of knowledge with a training mode.

**Forms of certification**

The point-rating accumulative system is an exam.

**Compiled by:**

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Head of the Department of Traumatology and  
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A handwritten signature in blue ink, appearing to read 'S.S. Sabaev', is written over a white rectangular background.

S.S.Sabaev