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“_01_”_09_2021 year

The Head

of General Surgery Unit

professor Viktor Andriuschenko

Thematic plan

of practical lessons

to course of **Prehospital Aid** for students of II year education pharmaceutical faculty on autumnal semester of 2021/2022 educational year (1.09.2021 – 10.12.2021).

N in order	Topics	Amount of hours
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Semantic module N1. Cardio – Pulmonary Resuscitation. Resuscitation measures. Dressings (Desmurgy). Asepsis and antisepsis.

1.	Cardio – Pulmonary Resuscitation (CPR). Anatomic and physiologic fundamentals of breathing and blood circulation. Signs and diagnostics of clinical, biological and social death. General principles of the CPR. Technique of the heart closed massage and artificial ventilation. Indications and contraindications to CPR. Algorithm of CPR for one and two rescuers. Criteria of the CPR efficiency. Complications and its prophylaxis. Concept, causes and diagnostics of the respiratory and cardiac insufficiency. The rules of giving of the first medical aid. Shock. Collapse. Coma. Disorders of consciousness: definition, etiology, estimation of the patients state (primary examination, anamnesis, somatic inspection). Prehospital aid of unknown etiology coma.	2
2.	Dressings (Desmurgy). The materials for dressings characteristics. The bandage (gauze), glue, kerchief, gyps (made from Paris plaster) bindings. Kinds of the bindings: protective, squeezing, medical, corrective. The rules and technique of applying of bandages on the head and chest.	2
3.	Dressings. Technique of the bindings applying on abdomen and chest. Occlusive bandage on the chest. Bandages of	2

	extremities: circular, spiral, tortoise – like, on finger and fingers of arm, spike – like, eight –like on the arm, Desault”s.	
4.	Asepsis and antisepsis. Definition of concepts. Kinds of antisepsis. Keeping of asepsis and antisepsis principles during implementation of the first prehospital aid.	2

Semantic module N 2. Opened damages. Wounds. Definition of concepts, classification, dangers of some kinds of the wounds.

5.	Wounds. Concept, classification. Methods of the wound evaluation (neurovascular compound, area and depth of the tissues lost, degree of pollution, location). First prehospital aid of the wounds different kinds. Bite wounds. Prophylaxis of the gas gangrene, tetanus and rabies. Syndrome of the long crushing (Crushing syndrome): causes, signs, dangers, tactics of the first medical aid.	2
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Semantic module N 3. Bleedings and blood loss.

6.	Bleedings. Definition, classification of the bleedings. Kinds of temporary bleeding arrest: compression of the wounds, lifting + compression, digital pressure, splinting, applying of the rubber tourniquet, tight bandaging, applying of hemostatic forceps. Tamponade of the nostrils: technique, indications, contraindications, typical mistakes. The asepsis and antisepsis rules during bleeding arrest. Concluding (final) methods of the bleeding arrest.	2
7.	Hemorrhagic shock. Concept, causes, signs, Alghovers shock index. First medical aid. Peculiarities, dangers and clinical symptoms of internal bleedings. Transfusion of the blood, blood compounds and blood substitutes.	2

Semantic module N 4. Traumatizing(Injuries) and damages.

8.	General principles. Classification, mechanism of action, kinds of the injuries. Study of the trauma place (circumstances, facilities of defense, aggravating factors). Methods of the victim evacuation from the crushed car (slow, fast). Methods of the victims stabilization. Priorities of actions on place of accident (primary review, secondary review “from hair to the tips of fingers”, taking of anamnesis, measures on place of trauma). Methods of the secondary examination in detail. Principles of the anamnesis taking and affected victims observation (inspection). Most important vital functions parameters (pulse, blood pressure, rate of the breathing). Types of the damages	
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	that require immediate reacts. Concept of the “golden hour” and “platinum half hour”. Preparation of the patients to transportation. Registration of the necessary medical information. Priorities of prehospital treatment. Methods and rules of the transport immobilization. Kinds of transportation. Taking away of victims from sitting and lying positions. Carrying of victims on stretchers and by hands. Rules of transportation. Types of bandages and means that uses for transport immobilization. Injuries of children: epidemiology and mechanisms, anatomic and physiologic peculiarities. Principles of inspection and first medical aid. Fundamentals of care for damaged patients. Measures of asepsis and antisepsis.	2
9.	Fractures of the bones. Diagnostics and first medical aid. The order of medical actions of complicated fractures. Diagnostics of dislocations, first medical aid. Traumatic amputations: first medical aid. Closed damages of the soft tissues: classification, diagnostics, first medical aid.	2
10.	Trauma of the head and spine cord. Trauma of the head: mechanism of the injury. Methods of the patients examination. Evaluation of cranio – cerebral trauma severity: anamnesis, mechanism, vital (urgent) indications, Glasgoe scale, somatic observation. Diagnostic signs of different types of the trauma. Tactics of urgent aid: primary inspection, immobilization, transportation, secondary inspection. Mistakes of the first aid. Trauma of the spine cord: mechanism of the trauma. Methods of the spine cord examination. Spinal shock, tetra- and paraplegia. Tactics of the urgent aid: primary examination, immobilization, transportation, secondary examination. Dynamic observation. Mistakes of the first aid.	2
11.	Trauma of the chest, abdomen and pelvis. Trauma of the chest cavity: mechanism of trauma. Methods of the chest cavity organs examination. Opened, closed and tension pneumothorax, hemothorax, tamponation of the heart, balloting of chest cavity, cardiac trauma, obstruction of respiratory paths. Principles of prehospital aid. Mistakes of the first aid. Trauma of abdominal cavity organs and pelvic organs: mechanism of trauma. Methods of examination. Complications, dangers for victims life (intraabdominal bleeding, peritonitis, evisceration).	2
12.	Burns, frostbites, electrical trauma. Methods of the burnt patients examination (determination of the depth, area and severity of the burn). Principles of resuscitation and giving of	

	the first medical aid for burnt patients and affected by electrical current. Inhalation damages: diagnostics and first medical aid. Chemical, rays and radiation burns: peculiarities of diagnostics and first medical aid.	2
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Semantic module N 5. Acute therapeutic diseases and poisonings.

13.	Poisonings. Terms, conditions, classification, dangers. Evaluation of the patients state – function of the breathing, cardio – vascular system, consciousness, collecting of compulsory information. Poisonings by mushrooms. First medical aid of different poisonings: technique of the stomach washing (cleaning), antidotes, sorbents, some medical preparations. Bites by poisonous (venomous) animals and mosquitoes: first aid. Care for patients who survived a poisoning.	2
14.	Acute therapeutic diseases of organs of cardio – vascular and respiratory systems. Infarction of myocardium, acute cardio – vascular insufficiency, cardiogenic shock, arrhythmias, hypertonic crisis. Attack of bronchial asthma. The principles of diagnostics and first medical aid. Allergy, anaphylaxis, allergens. Clinical signs and variants of the clinical course. Edema of the lungs. Quincke’s edema. First medical aid.	2

Semantic module N 6. Acute surgical diseases of abdominal cavity organs.

15.	Diseases united by term “acute abdomen”: acute appendicitis, cholecystitis, pancreatitis, perforated ulcer of stomach and duodenum, strangulated hernia, gut obstruction. Causes, symptoms, prehospital diagnostics, first medical aid, principles of treatment on prehospital stage. Typical mistakes of the first aid.	2
Together		30

Total amount of hours: **30** (on practical lessons), **50** (for independent learning)

Senior teacher

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