

MINISTRY OF HEALTH OF UKRAINE
ODESA NATIONAL MEDICAL UNIVERSITY

Faculty Medical №1

Department of simulation medical technologies

CONFIRMED by
Vice-rector for scientific and pedagogical work



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METHODICAL RECOMENDATION
FOR ACADEMIC DISCIPLINE

**«EMERGENCY CONDITIONS IN SURGERY. PRACTICAL SKILLS. SIMULATION
TRAINING»**

Faculty, course: International, 6 year

Educational Discipline: Emergency conditions in surgery. Practical skills. Simulation training

Approved:

The methodical recommendation was approved at the meeting of the department of simulation medical technologies

Protocol No. 1 of 28.08.2023

Head of the department _____ Oleksandr ROGACHEVSKYI

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PRACTICAL TRAINING

Practical lesson No. 1

Topic. Practical aspects of application of various types of surgical sutures. Primary surgical treatment of wounds of various types. Simulation training

Purpose: Mastering by students of the 6th year of medical and international faculties the skills of performing PHO, understanding and applying measures to prevent possible complications, providing conditions for wound healing

Basic concepts: sutures, asepsis, antisepsis, primary surgical treatment of wounds, wounds, bleeding, infection, healing, tetanus

Equipment: BOSS, medical trays, medical masks, latex gloves, tweezers, Hegar needle holder, suture material, cutting needles, caps, syringe and needle, grooved probe, button probe, anatomical tweezers, abdominal scalpel, sharp scalpel, Cooper's scissors, straight pointed surgical scissors, Kocher's hemostatic clamps, Billroth's hemostatic clamps, "Mosquito" type clamp, Farabef hooks, trident hooks, laptop, projector

Plan:

1. Organizational activities (greetings, verification of those present, announcement of the topic, purpose of the lesson, motivation of higher education seekers to study the topic).
2. Control of the reference level of knowledge (written work, written test, frontal survey on basic terminology, etc.) (if necessary).
3. Questions (test tasks) to check basic knowledge on the topic of the lesson:
 1. Which statements do not correspond to the algorithm for performing primary surgical treatment of wounds?
 - A. The second stage involves dissection of the wound cavity with a linear incision .
 - A. The first stage of treatment can be considered the removal of foreign bodies + from the wound cavity
 - S. At the third stage, tissues that have lost viability are excised
 - D. _ The fourth stage is an operation on damaged tissues and internal organs
 - E. _ The fifth stage is called wound drainage , while the doctor creates the most

possible optimal conditions for the normal outflow of wound secretion

2. Tetanus is

A. acute infectious disease from the group of zoonoses caused by anaerobic bacterium *Clostridium tetani* .

B. _ acute infectious disease from the group of sapronosis , which is caused by anaerobic bacterium *Clostridium tetani* . +

C. _ an acute infectious disease from the group of sapronosis , which is caused by aerobic bacterium *Clostridium tetani* .

D. _ an acute infectious disease from the group of sapronosis caused by the *Clostridium tetani* virus .

E. _ acute infectious disease from the group of sapronosis , which is caused by anaerobic bacterium *Clostridium botulinum*

3. Contraindications to primary surgical treatment of wounds are:

A. Multiple small superficial blind wounds

B. _ Small superficial wounds with narrow entrance and exit openings without signs of injury to a large vessel, nerve, tendon, bone

C. _ There are no contraindications

D. Correct answers A and B +

E. _ Pus in the wound

4. You are a doctor-surgeon of the reception department. A 51-year-old man came to you with complaints of bleeding from the right hand, which occurred after a saw injury 20 minutes ago. Your actions?

A. Dissection of the wound cavity with a linear incision

B. _ Analgesia

C. _ Stop bleeding

D. _ Revision of the wound

E. _ Everything is correct

4. Discussion of theoretical issues:

- Types of seams
- Types of nodes
- Types of suture material
- Instruments used for primary surgical wound treatment
- Prevention of tetanus and gas gangrene
- Concepts of asepsis and antiseptics
- Concept of infection

Note. The discussion of theoretical issues can take place in the form of answers to the questions, debates, discussions, presentations with reports, presentations, abstracts, discussion of reports and abstracts, review of the answers of higher education applicants, etc.

5. Topics of reports/abstracts:

- Tetanus in modern surgery
- Differences between primary and secondary surgical treatment of wounds
- Vascular suture
- McMillan's suture -Donati
- Internal skin seam

Note. When preparing a report, essay, analytical review, etc., students of higher education can, along with this, prepare didactic visual materials in the form of tables, code diagrams, slides, drawings, drug schemes, etc.

6. Summing up

7. List of recommended literature (main, additional, electronic information resources):

Main:

1. Surgery: textbook / O.Yu. Usenko, G.V. Bilous, G.Y. Putintseva. - 5th edition. - K.: VSV "Medicine", 2021. - 416 p.
2. Surgical diseases (textbook) — P.D. Fomin, Ya.S. Bereznytskyi, Ya.S. Bereznytskyi, O.A. Viltsanyuk, M.D. Zheliba et al., - K.: Medical University "Medicine", 2017

Additional:

1. Emergency situations in surgery (study guide) — L.M. Kovalchuk, K.M. Bobak, A.I. Bobak, V.V. Kyretiv et al., 2017
2. Anesthesiology, intensive care and intensive care: a study guide (University I-III of the Russian Academy of Sciences) / A.A. Ilko - 2nd ed., revised. and add., "Medicine", Kyiv, 2018

Electronic information resources:

1. <https://www.c-tecc.org/our-work/guidance> - Committee on Tactical Emergency Relief

Practical lesson #2

Topic. External bleeding. Types. First aid. Conversion of turnstiles and harnesses. Compartment is a syndrome. Simulation training

Purpose: to learn how to stop life-threatening external bleeding

Basic concepts: bleeding, hypovolemia, shock, tourniquet, blood pressure, tourniquet, tamponade

Equipment: laptop with presentation, multimedia projector, harnesses, tourniquets, bandages, gauze, HAL S3201, latex gloves, medical masks, syringes, solutions for injections.

Plan:

1. Organizational activities (greetings, verification of those present, announcement of the topic, purpose of the lesson, motivation of higher education seekers to study the

topic).

2. Control of the reference level of knowledge (written work, written test, frontal survey on basic terminology, etc.) (if necessary).

3. Questions (test tasks) to check basic knowledge on the topic of the lesson:

1. The doctor of the ambulance found the patient S., 22 years old, with a stab wound to 'some tissues of the right shoulder with minor bleeding. a pressure bandage was applied 'and the patient was transported to the surgical department. The doctor on duty found a decrease in the temperature and sensitivity of the skin of the hand, limitation of active movements in the fingers, disappearance of pulsation in the arteries of the forearm, swelling of 'various tissues in the wound area. What preliminary diagnosis can you make?

A. Traumatic injury of the right brachial artery

B. Traumatic injury of the right brachial vein

C. Traumatic damage to the nerve trunks of the right shoulder

D.+ Cut wound of 'some tissues of the right shoulder

E. Traumatic injury of the subcutaneous veins of the right shoulder

2. A 25-year-old patient was wounded by a shell fragment in the area of the left hypochondrium '. On the battlefield, in the order of mutual aid, a 'bandage was applied with an individual package. Delivered to MPP. He complains of dizziness, weakness, thirst, stomach pain. The general condition is severe, pale, the pulse is 120/min. The abdomen is soft ', painful on palpation. The bandage 'is well fixed, slightly soaked 'with blood. Establish a tentative diagnosis

A. Non-penetrating abdominal injury

B.+ Penetrating abdominal injury. Internal bleeding. Spleen injury

C. Intra-abdominal bleeding

D. Spleen injury

E. Penetrating abdominal injury, spleen injury

3. A 39-year-old man was admitted to the trauma center with an injury to his left hand. During the examination, a cut wound was found in the area where the thumb is raised, the finger does not bend. What muscle 'is damaged?

A. Adductor muscle 'of the thumb

B. Longus muscle '– flexor of the thumb pollicis brevis muscle'

D. Opposite 'thumb muscle

E. Short muscle '– flexor of the thumb

4. A 32-year-old patient was admitted to the clinic 4 hours after a stab wound to the abdomen. The function of the cardiovascular system is not impaired, the general blood test is free of abnormalities. On the front wall of the abdomen in the epigastrium - a wound 2x0.5 cm, bleeding a little. What action is indicated to clarify the diagnosis and choose tactics?

A. + Overview X-ray of the abdominal cavity

- B. Laparocentesis
- C. Laparoscopy
- D. Ultrasound examination
- E. Laparothymia

5. In a 38-year-old patient, after a stab wound to the left half of the chest, it was found that foamy liquid was coming from the wound, tympanitis, and a sharp decrease in breathing on the left side. BP 80/40 mm. mercury Art. Pulse 120/min., blood pressure - 20 g/l. X-ray - collapsed left lung, horizontal level of liquid at the level of the third rib. What treatment tactics to choose?

- A + Emergency thoracotomy
- B Delayed thoracotomy
- C Drain the left pleural cavity
- D Apply an occlusive dressing to the wound
- E Conservative therapy

6. Patient K., 19 years old, was brought with a diagnosis of "chest injury" with complaints of the impossibility of inhalation and exhalation. The patient is pale. Blood pressure 90/50 mm Hg. Auscultatively - breathing is not heard on the left side. X-ray: the organs of the mediastinum are shifted to the right, atelectasis of the left lung. Your diagnosis?

- A *Tense pneumothorax.
- B Fracture of ribs.
- C Chest congestion.
- D Palpitation of the heart.
- E Hemothorax.

7. The patient is 54 years old. Radiograph: right-sided hydropneumothorax. Collapse of the lungs of the 1st century. What method of treatment would be appropriate?

- A * Puncture of the pleural cavity.
- B Thoracoscopy
- C Bronchoscopy
- D thoracentesis
- E Intravenous administration of medicinal substances.

8. A 36-year-old patient received a penetrating stab wound to the left half of the chest about 3 hours ago. Delivered in severe condition: euphoria, pale skin. Heart sounds are deaf, tachycardia 130 bpm. Blood pressure – 80/70 mm Hg. Art. The pulse on the wrist is barely detectable. Chest wound 2 cm, located on the left along the parasternal line at the level of the III intercostal space. Breathing over the left lung is weakened, the percussion sound is shortened in the posterior and lower parts. What medical measures are the most appropriate?

- A * Emergency thoracotomy.
- B Pleural puncture.
- C Pericardial puncture.
- D Blood transfusion.
- E Complex of resuscitation measures.

8. On the 4th day after suturing a perforated stomach ulcer, a patient suffering from pulmonary emphysema developed a spontaneous pneumothorax. The most

advantageous place for draining the pleural cavity to eliminate pneumothorax is:

A *Second intercostal space along the middle clavicle line.

B Eighth intercostal space along the posterior axillary line.

C Seventh intercostal space along the front axillary line.

D Sixth intercostal space along the anterior inguinal line.

E Fifth intercostal space along the middle clavicle line.

9. The patient with the established diagnosis has a closed chest injury on the left side, a small hemothorax. During the puncture of the pleural cavity on the left side, 100 ml of blood was removed. The Rouviellois-Gregoire test is negative. What are the further tactics of treating the patient?

A * Repeated punctures of the pleural cavity and anti-infective therapy

B Drainage of the pleural cavity according to Bülow

C X-ray of the chest and dynamic observation

D Thoracotomy on the left

E Anti-infective therapy and breathing exercises

9. A 42-year-old patient is being treated for an acute abscess of the middle lobe of the right lung in the stage of drainage. The patient suddenly developed severe pain in the right half of the chest, shortness of breath, and his condition worsened sharply.

Objectively: ChDR -28/min., cyanosis, participation of additional muscles in the act of breathing, chest asymmetry. Over the right lung, dulling of the percussion sound in the lower parts and tympanitis in the upper parts is determined. Auscultatively, sharply weakened vesicular breathing with medium and large bubbling rales is determined. What is the most likely complication for the patient? A *Right-sided total pyopneumothorax

B Right-sided partial pyopneumothorax

C Right-sided pleural empyema

D Right-sided exudative pleurisy.

E Right-sided hemothorax

10. In the victim, 33 years old, with a chest injury, an intensive homogeneous darkening of the lower lung field on the right with a Damoiseau line was detected on the examination radiograph of the chest organs. Blood was obtained during a diagnostic pleural puncture. What needs to be done to determine further surgical tactics?

A *Reviellois-Gregoir test.

B Thoracoscopy.

C Dynamic observation in a surgical hospital.

D Dynamic X-ray observation.

E Computed tomography of the pleural cavity.

Note. The discussion of theoretical issues can take place in the form of answers to the questions posed, debates, discussions, presentations with reports, abstracts, discussion of reports and abstracts, review of the answers of students of higher education, etc.

4. Discussion of theoretical issues:

- External bleeding.

- Types.

- First aid.

- Conversion of turnstiles and harnesses.

- Compartment is a syndrome.

4. Topics of reports/abstracts:

- Different types of turnstiles
- Blood transfusions
- AIDS, HIV

- *Note.* When preparing a report, essay, analytical review, etc., students of higher education can, along with this, prepare didactic visual materials in the form of tables, code diagrams, slides, drawings, drug schemes, etc.

5. Summing up

6. List of recommended literature (main, additional, electronic information resources):

Main:

1. Surgery (textbook) — O.Yu. Usenko, G.V. Bilous, G.Y. Putintseva, 2021
2. Anesthesiology, intensive care and resuscitation (study guide) — A.A. Ilko, 2018

Additional:

1. Surgical diseases (textbook) — P.D. Fomin, Ya.S. Bereznytskyi, Ya.S. Bereznytskyi, O.A. Viltsanyuk, M.D. Zheliba et al., 2017
2. Emergency situations in surgery (study guide) — L.M. Kovalchuk, K.M. Bobak, A.I. Bobak, V.V. Kyretiv et al., 2017

Practical lesson No. 3

Topic. Basic laparoscopic skills. Simulation training

Purpose: to learn basic laparoscopic skills

Basic concepts: laparoscopy, 3d, cholecystitis, laparoscopic equipment

Equipment: a laptop with a presentation, a multimedia projector, a Lap trainer , a set of endoscopic tools

Plan:

1. Organizational activities (greetings, verification of those present, announcement of the topic, purpose of the lesson, motivation of higher education seekers to study the topic).

2. Control of the reference level of knowledge (written work, written test, frontal survey on basic terminology, etc.) (if necessary).

3. Questions (test tasks) to check basic knowledge on the topic of the lesson:

1. A 55-year-old patient complains of pain in the epigastric region and in the right hypochondrium with radiation to the right shoulder blade. There was vomiting, which did not bring relief. Body temperature is 37.6 degrees. The abdomen is moderately distended, tense and painful in the epigastric region and in the right hypochondrium. A dense painful formation is palpated here. Moderate tension of the muscles of the abdominal wall in the right hypochondrium is noted. Positive Ortner symptom. What is palpable in the right hypochondrium.

A. Enlarged liver;

IN. Enlarged gallbladder;

S. Enlarged kidney;

D. Abdominal tumor;

E. _ Stomach.

2. A 38-year-old patient has severe abdominal pain. In the anamnesis - gallstones disease. Temperature 37.2 0 C. Blood leukocytes 8.9 G/l On objective examination – muscle stiffness in right hypochondrium. Specify which additional examination should be done to clarify the diagnosis.

A. ultrasound; +

B. _ Laparocentesis;

C. FGDS;

M. Survey radiography of the abdominal cavity;

3. A 21-year-old patient is bothered by severe pain in the right subcostal region, radiating to the right shoulder blade, after eating fried food. The abdomen is soft and painful in the right hypochondrium, where the bottom of the enlarged painful gallbladder is determined. Hepatic dullness is preserved. Ortner's positive symptom. The temperature is 37.4 degrees. Specify the leading clinical symptom:

A. Reception of fried food;

- B. _ Irradiation of pain under the right shoulder blade; +
- C. _ Palpate the bottom of the gallbladder;
- D. _ Hepatic dullness is preserved;
- E. _ Hyperthermia.

4. A 48-year-old patient was hospitalized in the department 6 hours after the onset disease with signs of acute cholecystitis. With urgent sonography: the gallbladder is enlarged, the wall is thickened to 0.6-0.7 cm with a bifurcated contour, a displaceable non-hyperechoic shadow up to 1.5 cm in diameter is determined in the neck of the bladder. Free fluid in the abdominal cavity and signs there is no formation of a paravesical infiltrate. The patient needs:

- A. Emergency operation; +
- B. _ Radiography of abdominal organs;
- C. _ Complex anti-inflammatory therapy;
- D. _ Gastric lavage;
- E. _ Urgent irrigography.

4. Discussion of theoretical issues:

- Laparoscopy, definitions, advantages
- Instruments used for laparoscopic operations
- Cholecystitis

5. Topics of reports/abstracts:

- History of the method
- Laparoscopy schools in Ukraine
- Laparoscopic schools in Odesa

6. Summary

7. List of recommended literature (main, additional, electronic information resources):

Main:

Main:

1. Surgery: a textbook / edited by Ya. S. Bereznytskyi. - Vinnytsia: Nova Kn., 2020. - 526 p. - (National textbook) (Ukraine).

Additional:

- 1 Surgical diseases (textbook) — P.D. Fomin, Ya.S. Bereznytskyi, Ya.S. Bereznytskyi, O.A. Viltsanyuk, M.D. Zheliba et al., 2017.

Electronic information resources:

1. <https://www.youtube.com/watch?v=Y43rKyoiYqg> apArt - YouTube

Topic 4. Chest injury. First aid according to the TECC and TCCC algorithms. Simulation training

Purpose: To learn how to distinguish chest injuries and provide emergency care for chest injuries

Basic concepts: injury, chest cell, pneumothorax, emergency care , TECC , TCCC .

Equipment: HAL S3201, Brayden , latex gloves, medical masks, syringes.

Plan:

1. Organizational measures (greetings, verification of those present, announcement of the topic, purpose of the lesson, motivation of higher education seekers to study the topic).
2. Control of the reference level of knowledge (written work, written test, frontal survey on basic terminology, etc.) (if necessary).
3. Questions and tasks to check basic knowledge on the topic of the lesson:

Indicative tasks for processing theoretical material

1. Compile a dictionary of basic concepts on the topic:

Term	Definition
TSSS	
T ECC	
Pneumothorax	
Hydrothorax	
Occlusal sticker	

Bleeding	
Chest	

II. Practical works (tasks) that will be performed during the lesson:

Clinical task #1.

You are a paramedic who works in an ambulance, at the address you see a 40-year-old wounded man who was wounded by a rifle shot to the chest cell 10 minutes ago. During examination, contact is not available, blood pressure is 70/20 mm . mercury st., pulse 120 for 1 minute of weak filling, blood stain on the shirt.

1. Your previous diagnosis?
2. What is your follow-up plan?
3. Treatment tactics?

Clinical task No. 2.

You are a paramedic who works in an ambulance, at the address you see a 42-year-old wounded man who was wounded by a shot in the breast cell from a rifle 5 minutes ago. During examination, contact is not available, blood pressure is 40/0 mm . mercury st., pulse 140 for 1 minute of weak filling, blood stain on shirt and pants .

III. Test tasks for self-control:

1. Specify the first medical aid for bleeding from the large arterial vessels of the limb:
 - A. Putting a tourniquet on the limb above the place of damage+
 - B. Placing a tourniquet on the limb below the point of damage
 - C. Applying a pressure bandage to the wound
 - D. Placing a vascular suture
 - E. Imposition of ok k lusion bandage

1. Specify the methods of temporarily stopping arterial bleeding from a wound in the middle third of the forearm
 - A. Finger compression of the radial artery
 - B. Applying a hemostatic tourniquet below the site of injury+
 - C. Blister with cold
 - D. Maximum flexion of the limb in the elbow joint
 - E. Elevated position of the upper limb

3. Specify the characteristic signs of pulmonary bleeding:

- A. Vomiting with dark red blood
- B. Vomit the color of coffee grounds
- C. Tar-like stool
- D. Coughing up frothy sputum of bright red color+
- E. Coughing up red blood

4. Specify the characteristic signs of bleeding from the intestines:

- A. Vomiting with dark red blood
- B. Vomit the color of coffee grounds
- C. Tarry stool+
- D. Coughing up foamy blood of a bright red color
- E. Feces are crimson

5. Specify the methods of temporarily stopping arterial bleeding from a wound in the middle third of the thigh

- A. Finger pressure of the femoral artery above the site of damage+
- B. Application of a hemostatic tourniquet above the site of damage
- C. Maximum flexion of the limb in the hip and knee joints
- D. Finger compression of the femoral artery directly in the wound

Task 4

List the main components of the TECC algorithm

- _____
- _____
- _____
- _____
- _____

Task 5

Complete the table of drugs for the treatment of hemorrhagic shock

Preparation	The purpose of the assignment

Task 6

Complete the table of differential treatment of patients with hypovolemic and hemorrhagic shock

Preparation	Method of administration, dose	Indication

IV Topics of reports/abstracts:

- History of creation of TESS and TSSS protocols
- Implementation of TESS and TSSS protocols to the modern medical service in Ukraine.

List of recommended literature

Main:

1. Surgery (textbook) — O.Yu. Usenko, G.V. Bilous, G.Y. Putintseva, 2021.

Additional:

1. Surgical diseases (textbook) — P.D. Fomin, Ya.S. Bereznytskyi, Ya.S. Bereznytskyi, O.A. Viltsanyuk, M.D. Zheliba et al., 2017

Practical lesson No. 5

**Penetrating wounds of the anterior abdominal wall . Surgical assistance.
Simulation training**

Purpose: To learn to distinguish between wounds of the anterior abdominal wall and to provide emergency care for wounds of the abdominal wall.

Basic concepts: injury of the anterior abdominal wall, abdominal wall, emergency care.

Equipment: Bryden, latex gloves, medical masks, syringes, solutions for injections.

Plan:

1. Organizational measures (greetings, verification of those present, announcement of the topic, purpose of the lesson, motivation of higher education seekers to study the topic).
2. Control of the reference level of knowledge (frontal survey) :
 - requirements for students' theoretical readiness to perform practical classes (knowledge requirements, list of didactic units);
 - questions (test tasks, tasks, clinical situations) to check basic knowledge on the subject of the lesson.

Indicative tasks for processing theoretical material

1. Compile a dictionary of basic concepts on the topic:

Term	Definition
Abdominal wall	
Intestine	
Bleeding	
Internal bleeding	
Blood pressure	
Abdomen	
Chest	
Stomach	
Chepets (Salnyk)	

II. Practical works (tasks) that will be performed during the lesson:

Clinical task #1.

You are a paramedic who works in an ambulance, at the address you see a 40-year-old wounded man who was wounded by a shot in the abdominal cavity from a rifle 10 minutes ago. During examination, contact is not available, blood pressure is 70/20 mm . mercury st., pulse 120 for 1 minute of weak filling, blood stain on pants.

1. Your previous diagnosis?
2. What is your follow-up plan?
3. Treatment tactics?

Clinical task #2.

You are a paramedic who works in an ambulance, at the address you see a 42-year-old wounded man, who was wounded by shots to the chest, chest and abdomen from

a rifle 5 minutes ago. During examination, contact is not available, blood pressure is 40/0 mm . mercury st., pulse 140 for 1 minute of weak filling, blood stain on shirt and pants .

III. Test tasks for self-control:

1. What is the name of the condition in which blood flows into one cavity of the body or the internal tissues of the body?

- A. Arterial bleeding
- B. Heavy bleeding
- S. External bleeding
- D. _ Average bleeding
- E. _ Internal bleeding +
- F. _ Venous bleeding

2. The outflow of blood from damaged vessels is...

- A. _ bleeding +
- B. trauma
- C. fracture
- D. burn

Task 4

List the main components of the abdominal cavity

- _____
- _____
- _____
- _____
- _____

Task 5

Complete the table of drugs for the treatment of hemorrhagic shock

Preparation	The purpose of the assignment

Task 6

Complete the table of differential treatment of patients with an isolated wound of the abdominal cavity and a combined wound with 2 or more cavities.

Preparation	Method of administration, dose	Indication

IV Topics of reports/abstracts:

- Anatomy of the intestine
- Blood supply of organs of the abdominal cavity

List of recommended literature

Main:

1. Surgery (textbook) — O.Yu. Usenko, G.V. Bilous, G.Y. Putintseva, 2021

Additional:

2. Surgical diseases (textbook) — P.D. Fomin, Ya.S. Bereznytskyi, Ya.S. Bereznytskyi, O.A. Viltsanyuk, M.D. Zheliba et al., 2017

Electronic information resources:

1. <https://zsz.pp.ua/nozhove-poranennya-v-zhivit-infikovana-rana-peredno-cherevno-stinki-kod-za-mkx-10/>

Practical lesson No. 6

Peculiarities of providing first aid for penetrating wounds of the thoracic and abdominal cavities in children of various ages. Simulation training

Purpose: To learn to distinguish between injuries of the anterior abdominal wall and chest cavity and to provide emergency care in these conditions

Basic concepts: injury of the anterior abdominal wall, abdominal wall, emergency care, thoracic cage

Equipment: Bryden, latex gloves, medical masks, syringes, solutions for injections.

Plan:

1. Organizational measures (greetings, verification of those present, announcement of the topic, purpose of the lesson, motivation of higher education seekers to study the topic).
2. Control of the reference level of knowledge (frontal survey) :
 - requirements for students' theoretical readiness to perform practical classes (knowledge requirements, list of didactic units);
 - questions (test tasks, tasks, clinical situations) to check basic knowledge on the subject of the lesson.

Indicative tasks for processing theoretical material

1. Compile a dictionary of basic concepts on the topic:

Term	Definition
Abdominal wall	
Intestine	
Bleeding	
Internal bleeding	
Blood pressure	
Abdomen	
Chest	
Pneumothorax	
Hydrothorax	
Occlusal sticker	
Stomach	
Chepets (Salnyk)	

II. Practical works (tasks) that will be performed during the lesson:

Clinical task #1.

You are a paramedic who works in an ambulance, at the address you see a wounded 13-year-old who was wounded by a shot in the abdomen from a rifle 10 minutes ago. During examination, contact is not available, blood pressure is 70/20 mm . mercury st., pulse 120 for 1 minute of weak filling, blood stain on pants.

1. Your previous diagnosis?
2. What is your follow-up plan?
3. Treatment tactics?

Clinical task #2.

You are a paramedic who works in an ambulance, at the address you see a wounded 12-year-old who was wounded by shots to the chest, chest and abdomen from a rifle 5 minutes ago. During examination, contact is not available, blood pressure is 40/0 mm . mercury st., pulse 140 for 1 minute of weak filling, blood stain on shirt and pants .

III. Test tasks for self-control:

1. What is the name of the condition in which blood flows into one cavity of the body or the internal tissues of the body?

- A. Arterial bleeding
- B. Heavy bleeding
- S. External bleeding
- D. _ Average bleeding
- E. _ Internal bleeding +
- F. _ Venous bleeding

2. The outflow of blood from damaged vessels is...

- A. _ bleeding +
- B. _ trauma
- C. _ fracture
- D. _ burn

Task 4

List the main components of care for children with penetrating injuries of the chest and abdominal cavity in children

- _____
- _____
- _____
- _____
- _____

Task 5

Complete the table of drugs for the treatment of hemorrhagic shock in children

Preparation	The purpose of the assignment

Task 6

Complete the table of differential treatment of patients with an isolated wound of the abdominal cavity and combined with an injury of 2 or more cavities in children

Preparation	Method of administration, dose	Indication

IV Topics of reports/abstracts:

- Anatomy of the intestine in children
- Blood supply of organs of the abdominal cavity in children
- Difference in treatment approaches in adults and children with penetrating injuries of the chest and abdominal cavities

List of recommended literature

Main:

1. Surgery (textbook) — O.Yu. Usenko, G.V. Bilous, G.Y. Putintseva, 2021

Additional:

1. Surgical diseases (textbook) — P.D. Fomin, Ya.S. Bereznytskyi, Ya.S. Bereznytskyi, O.A. Viltsanyuk, M.D. Zheliba et al., 2017

Electronic information resources:

1. <https://zsz.pp.ua/nozhove-poranennya-v-zhivit-infikovana-rana-peredno-cherevno-stinki-kod-za-mkx-10/>

