



PA 7.5.1 SYLLABUS

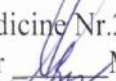
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Approved

At the meeting of the Faculty Council -----
Minutes No. 3 of 25.02.2014

Dean of the Faculty Medicine Nr.2,
PhD, associate professor  M. Bețiu

Approved

At the meeting of the chair of General
Surgery and Semiology
Minutes No. 5 of 04.02.2014

Head of the chair,  E. Guțu
PhD, professor

SYLLABUS FOR STUDENTS OF THE FACULTY Medicine No.2

Name of the course: **General surgery and Semiology**

Code of the course:

Type of course: **Compulsory Course**

Total number of hours – 136 hours

Including lectures - **34 hours**, practical studies - **102 hours**

Number of credits provided for the course: **9**

Lecturers teaching the course:

PhD, professor Eugen Guțu

dr.med., associate professor Vladimir Iacub

dr.med., associate professor Dumitru Casian

dr.med., assistant Vasile Culiuc

dr.med., assistant Ghenadie Mocanu



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I. Aim of the discipline

Study of main elements of asepsis and antisepsis in surgery, study of basic surgical pathologic processes and disorders of homeostasis and semiology of the inflammatory, ischemic, hemorrhagic, necrotic, and traumatic syndromes. Studying and learning of practical maneuvers in desmurgy, surgical processing and suture placing on skin wound, venous and arterial line placing, urinary bladder catheterization, gastric lavage, thoracentesis and tube thoracostomy, and paracentesis

II. Objectives obtained in teaching the discipline Training objectives within the discipline of General Surgery and Semiology:

Course objectives:

- To develop the knowledge of asepsis and antisepsis in surgery in order to prevent and treat surgical infections. Knowledge of regulations and orders of the Health Ministry of Moldova upon the compliance of rules in asepsis;
- To promote ethic principles in health care of surgical patients;
- To develop basic knowledge in understanding the surgical syndromes: inflammatory, ischemic, necrotic, hemorrhagic, traumatic, tumoral, and their semiology;
- To acquire practical skills in preparing of patients for surgery and their management in the postoperative period;
- To develop knowledge in examination of a surgical patient with the use of both physical inspection and a number of additional noninvasive and invasive methods.

At the end of the subject study the student will be able to:

At the level of knowledge and understanding:

- To assimilate theoretical bases of asepsis and antisepsis in prevention and treatment of surgical infections;
- To know the bases of bleeding, human compensatory responses to hemorrhage, bleeding semiology, primary and secondary spontaneous hemostasis, artificial temporary and definitive hemostasis, DIC syndrome;



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- To know theoretical basis of blood transfusion, blood grouping and Rh-factor, blood substitutes and components, indications and contraindications to blood transfusion, complications that occur in blood transfusion and their prevention;
- To know basic principles of local anesthesia, definition, classification, technique of local infiltrative anesthesia;
- To know the bases of preparing of the patient to surgery, preoperative and postoperative period, types of surgical procedures;
- To know theoretical bases of wound classification, wound process, wound semiology and treatment procedures;
- To assimilate the theoretical basis of desmurgy;
- To know semiology of skull and brain trauma, thoracic, abdominal and multiple trauma, the concept of an isolated, multiple, associated and combined trauma;
- To know semiology of soft tissue inflammatory processes and generalized infection.
- To know semiology of surgical diseases of the head and neck region;
- To know semiology of surgical diseases and deformities of the chest;
- Semiology of inflammatory, dishormonal and tumoral disorders of mammary gland;
- To know semiology of conditions causes acute abdomen;
- To know semiology of inflammatory disorders and traumatic injuries of the musculoskeletal system;
- To know semiology of surgical disorders of the peripheral venous and arterial vascular system;
- To understand notions, forms and semiology of diabetic foot, knowledge the principles of prophylaxis and treatment of condition;
- To have theoretical knowledge about semiology of nutritional disturbances, principles of enteral and parenteral feeding
- To know transplantology and its theoretical basis

At the level of application:

- To perform clinical examination of a patient with surgical pathology and reflecting the findings into academic history of diseases;



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- To perform surgeon's hand and operative field processing;
- To use local anaesthesia techniques;
- To make assessment of hemodynamic parameters in bleeding;
- To apply artificial techniques of temporary and definitive haemostasis;
- To perform blood transfusions, compatibility test, monitoring and its protocol;
- To make intramuscular, subcutaneous, intracutaneous injections;
- To make puncture and catheterization of venous and arterial vessels;
- To make urethral catheterization and gastric lavage;
- To provide first aid of traumatized patient;
- To make primary processing of surgical wound;
- To select the drugs and antiseptics for local treatment of different phases of wound healing;
- To perform wound suturing and surgical knot ligation;
- To apply of triangular, cravat, rolling and elastic bandages at various parts of the body;
- To determinate muscular tenderness, peritoneal signs and other symptoms of acute abdomen;
- To assess the pulsation of peripheral arteries and another symptoms of arterial insufficiency and interpretation of obtained results;
- To interpretat the functional probes in chronic venous insufficiency of lower limbs;
- To assess the nutritional status using anthropometrical methods;
- To perform history taking, physical examination of patient and schedule the patient's history.

At the level of integration:

1. To integarte the acquire concepts in fundamental knowledge on anatomy, histology, physiology and pathological physiology, biochemistry etc.
2. To integrate acquired knowledge in their further practical application.
3. To integrate acquired theoretical knowledge with internal diseases semiology.



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4. To use principles in diagnosis of syndromes: inflammatory, haemorrhagic, necrotic, ischemic, occlusive and traumatic.

II. *Provisional terms and conditions* _

General surgery and semiology is a medical discipline that is the crossing level from theoretical disciplines to a clinical one - surgical pathology, the study of which creates the stock of knowledge in surgical semiology of basic surgical pathological processes and skills needed to understand other surgical disciplines to follow. For a good learning of the discipline it is necessary to have good knowledge in normal anatomy, normal physiology, pathological anatomy and physiology that are basic subjects learned in preclinical studies.

IV. *Main theme of the course*

A. *Lectures:*

Nr	Topic	Hours
1	Short history of surgery. Antisepsis: definition, history, and classification.	2
2	Asepsis. Prevention of airborne, contact, and implantation infection transmission.	2
3	Bleeding: classification, clinical manifestations, and diagnosis. Primary and secondary spontaneous haemostasis. Surgical haemostasis.	2
4	Blood agglutination. Determination of blood groups and Rh-factor. Blood transfusion: indications and contraindications, methods and kinds. Complications of blood transfusion.	2
5	Surgical intervention: definition, classification. Preoperative period and postoperative management.	2
6	Surgical instruments. Sutures, knots and basic surgical skills.	2



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7	Trauma. General conception of traumatic injuries of head, chest and abdomen.	2
8	Wounds: classification, clinical manifestations. Wound healing. Treatment of wounds.	2
9	Surgical infection. Semiology of purulent process of skin and subcutaneous tissues.	2
10	Semiology of inflammatory diseases and traumatic injuries of bones and joints.	2
11	Anaerobe infection of soft tissue. Surgical sepsis.	2
12	Surgical semiology. Semiology of the thorax and spine deformities. Semiology of breast diseases.	2
13	Semiology of acute abdomen.	2
14	Semiology of peripheral vascular diseases. Necrosis, gangrene, and ulcers.	2
15	Surgical aspects of diabetic foot	2
16	Semiology of nutritional disturbances. Parenteral and enteral nutrition.	2
17	Basics of transplantology.	2

B. Practical lessons:

Nr	Topic	Hours
1	History of surgery.	3
2	Antisepsis. Definition, classification. Main kind of antiseptics.	3
3	Asepsis. Prevention of airborne and contact infection in surgery.	3
4	Asepsis. Prevention of contamination by implantation in surgery.	3
5	Local anaesthesia.	3



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6	Pathophysiological disturbances in patient's body in case of haemorrhage. Classification, semiology and diagnosis of bleeding.	3
7	Primary and secondary spontaneous haemostasis. Haemostatic procedures. DIC syndrome: definition, semiology, diagnosis and prophylaxis.	3
8	Blood agglutination. Determination of blood groups and Rh-factor. Indications and contraindications for blood transfusion. Step-by-step actions in blood transfusion.	3
9	Complications of blood transfusion. Semiology, prophylaxis and treatment of haemolytic shock. Blood components and derivatives.	3
10	Surgical intervention: definition, classification. Preoperative period and postoperative management.	3
11	Surgical instruments. Sutures, knots and basic surgical skills.	3
12	Desmurgy: concept, types of bandages. General rules of dressing technique and bandaging.	3
13	Wounds: definition, local symptoms. Natural history of wound healing.	3
14	Wound's treatment. Primary surgical processing of wound. Types of wounds' closure. Local and general treatment of wounds.	3
15	Trauma: definition, general notions, classifications. General conception of traumatic injuries of head, chest and abdomen.	3
16	Catheters and tubes insertion. Minor invasive surgical manipulations.	3
17	Surgical infections: classification, pathogenesis, local and general symptomatology. Semiology of the acute purulent process of the soft tissue: furuncle, carbuncle, erysipelas, hydroadenitis, lymphadenitis, lymphangoitis.	3
18	Surgical infections. Semiology of the surgical infection: local and general signs. Semiology of the acute purulent process of the soft tissue: furuncle, carbuncle, erysipelas, hydro adenitis, lymphadenitis, lymphangoitis.	3



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19	Surgical infections. Semiology of the surgical infection: local and general signs. Semiology of acute purulent process of the soft tissue: abscess, phlegmon, paraproctitis. Fistula, press ulcer. Principles of local treatment.	3
20	Semiology of whitlow and hand's phlegmon. Principles of surgical and conservative treatment.	3
21	Semiology of traumatic injuries of bones and joints. General principles of treatment. Semiology of inflammatory conditions of bones and joints: osteomyelitis, arthritis, bursitis. Classification, diagnostic, treatment and prevention.	3
22	Anaerobe infection of soft tissue. Semiology of gas gangrene. Semiology of anaerobe non clostridium infection. General principles of treatment and prophylaxis. Surgical aspects of tetanus.	3
23	Sepsis: definition, classification. Clinical criteria of SIRS. Clinical manifestations and diagnosis of surgical sepsis. Complex of curative measures for surgical sepsis.	3
24	Surgical semiology. Semiology of surgical diseases of the head and neck. Semiology of benign tumours and inflammatory processes of the head. Surgical semiology of thyroid gland.	3
25	Semiology of the thorax congenital and acquired deformities. Semiology of spine deformities.	3
26	Semiology of breast diseases: complains, history and physical examination.	3
27	Acute abdomen. Groups of diseases. Semiology of acute abdomen: complains, history and physical examination.	3
28	Semiology of acute abdomen, caused by abdominal inflammatory processes, perforation of hollow organs, intraabdominal bleeding, and intestinal obstruction.	3
29	Complex clinical examination of surgical patient.	3



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30	Semiology of peripheral vessel system: acute arterial insufficiency; chronic arterial insufficiency; aneurism of peripheral vessels, chronic venous insufficiency, venous thromboses, and elephantiasis. Semiology and treatment of dry and wet gangrene.	3
31	Diabetic foot: surgical aspects.	3
32	Semiology of nutritional disturbances. Parenteral and enteral nutrition.	3
33	Practical examination.	3
34	Presentation of history of disease of surgical patient.	3

V. Recommended literature:

- A. compulsory:

Nr	Source	Ex
1	Gu u E, Casian D, Iacob V, Culiuc V. General Surgery and Semiology. Lecture support for 3-rd year students, faculty of Medicine nr.2. Chi in u: CEP Medicina; 2011. 114 p.	238
2	Gostishcev V. General surgery. Moscow: Goetar-Media; 2003. 219 p.	49
3	Gu u E, Iacob V, Casian D, Cristalov G. Dressings and Bandages. Methodical recommendation. Kishinev: CEP Medicina; 2006. 29 p.	35

- B. additional:

Nr	Source	Ex
1	Sabiston Textbook of Surgery. The Biological Basis of Modern Surgical Practice. 18-th ed. Philadelphia: WB Saunders; 2007. 2100 p.	4
2	Bates B. A Guide to Physical Examination and History Taking. 5-th ed. Philadelphia: JB Lippincott; 1991. 714 p.	1
3	Greenfield LJ, ed. Surgery: Scientific Principles and Practice. 2 nd ed. Philadelphia: Lippincott-Raven; 1997. 2238 p.	1

* available on Internet

VI. Teaching and learning methods

Discipline of General Surgery and Semiology is an subject where methods of teaching and learning consist of lectures in university halls, and practical work in Surgery Clinic. Courses are aimed to elucidate the material in the context of



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contemporary requirements; they follow to clear up the fundamental problems in various topics of general surgery, which are permanently updating. Practical lessons are spent in that way that theoretical material presented in lectures and bibliography updated are demonstrated in concrete practical activities. This is the most obvious way to motivate students to learn. Practical work is spent in discussion and the less understood topic for students is explained by teacher.

VII. Suggestions for individual activity

_____:

VIII. Methods of assessment

Current - ongoing verifying, clinical problems, clinical history, current test-control.

Final - complex examination including two steps: control test and oral exam. The annual mark that values 0.5 from the final mark is composed of 0.3 from annual mark and 0.2 for practical skills. This requires assessment of practical skills knowledge not at the end of second semester, but just during the study. So, examination mark summarizes the 0.3 from annual mark, 0.2 from the practical skills, 0.2 from test-control, and 0.3 from mark of oral theoretical answer.

In accordance with the "**Regulation on the organization of studies in higher education under the National Study Credit System** " approved by order of the Ministry of Education of the Republic of Moldova No. 726 of 20 September 2010 and Decision of the Central Medical Council of University "Nicolae Testemitanu" of 5 November 2010 for the session of 2011-2012 academic year, the following factors are approved:

Clinical disciplines:

Annual Average – coefficient 0.5;

Oral examination - coefficient 0.3;

Multiple-choice test - coefficient 0.2.



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At the clinical disciplines annual average mark consists of:

The actual annual average - coefficient 0.3;

Practical skills - coefficient 0.2.

Each component is assessed with grades from 10 to 1 with decimals and hundredths. The final mark is the weighted sum of current assessments and final examination and assessed with grades from 10 to 1 decimals rounded to 0.5.

Methods of mark rounding

The average of current and final marks	Final mark
5	5
5,1-5,5	5,5
5,6-6,0	6
6,1-6,5	6,5
6,6-7,0	7
7,1-7,5	7,5
7,6-8,0	8
8,1-8,5	8,5
8,6-9,0	9
9,1-9,5	9,5
9,6-10	10

Absence on examination without good reason is be recorded as "absent" and is equivalent to 0 (zero). The student has the right to re-take the exam twice.

IX. Language of study - english