



CD8.5.1DISCIPLINE CURRICULUM

Edition: 06

Date: 20.09.2017

Page 1/10

FACULTY OF PHARMACY
STUDY PROGRAM 0916.1 PHARMACY
CHAIR OF SURGERY NO.5

APPROVED

at the meeting of the Commission for Quality Assurance and Evaluation of the Curriculum faculty of Pharmacy
Minutes No.2 of 21.12.2017
Chairman, PhD pharmacy, associate professor

Uncu Livia _____
(signature)

APPROVED

at the Council meeting of the Faculty of Pharmacy
Minutes No.2 of 22.12.2017
Dean of Faculty, PhD pharmacy, associate professor

Ciobanu Nicolae _____
(signature)

APPROVED

at the meeting of the chair of Surgery No.5
Minutes No.2 of 26.10.2017
Head of chair, Dr. hab. med., university professor

Alin Bour _____
(signature)

SYLLABUS

DISCIPLINE MEDICAL ASSISTANCE

Integrated studies

Type of course: **Compulsory discipline**

Chisinau, 2017



CD8.5.1DISCIPLINE CURRICULUM

Edition:	06
Date:	20.09.2017
Page 2/10	

I. PRELIMINARY

- Studying, assimilation and medical skills training in: asepsis and antisepsis, bleeding, hemostasis, hemotransfusion, local anesthesia, surgical infection. The study of examination particularities of the surgical patient. The study of healthcare principles in perioperative period.
- Studying of etiopathogenesis, clinical signs and treatment principles of emergencies, formation of clinical thinking and practical skills useful for future pharmacists.

Curriculum Mission (purpose)

The development of healthcare skills in various surgical disease for pharmacists.

Languages of study: Romanian, Russian, English.

Beneficiaries: 2nd year pharmacy students

II. DISCIPLINE ADMINISTRATION

Code of discipline		S.04.O.045	
Name of the discipline		Medical Assistance	
Responsible (s) of discipline		Dr.habil., University professor Alin Bour	
Year	2	Semester / Semesters	4
Total hours including:			90
Course	-	Practical / laboratory work	34
Seminars	-	Individual work	56
Form of evaluation	colocvium	Number of credits	3

III. FORMATION OBJECTIVES IN THE DISCIPLINE

At the end of the course, the student will be able:

The level of knowledge and understanding:

- To know the etiopathogenetic mechanisms of the main surgical diseases.
- To understand the correlation between etiology, pathogenesis and clinical picture of a certain surgical pathology.
- To know the particularities of the onset and evolution in various surgical diseases.
- To be able to perform the differential diagnosis of the most widespread surgical pathologies.
- To know the main methods of instrumental and laboratory diagnosis of surgical conditions.
- To know the treatment and healthcare principles of the most common surgical pathologies.
- To know the prophylaxis methods of acute and chronic pathologies of the abdominal organs.



CD8.5.1DISCIPLINE CURRICULUM

Edition: 06

Date: 20.09.2017

Page 3/10

The level of application

- To be able to diagnose surgical emergencies.
- To be able to apply cause - effect principle.
- To establish the severity of general condition of the patient.
- To be able to use the instrumental and laboratory results to confirm clinical diagnosis.
- To solve the clinical situation problems by versatile and critical view of the learned information.
- To provide first aid in critical situations.
- To be able to perform wound dressing, i/m or i/v injections, determination of blood groups.
- To be able to argue the own opinion.

The level of integration

- To appreciate the importance of Medical Assistance in professional development.
- To be able to tackle the problems of clinical medicine.
- To find the relationship between Medical Assistance and other basic medical sciences.
- To be able to implimentate and integrate the knowledges from Medical Assistance into pharmacy practice.
- To be able to evaluate and autoevaluate the knowledges in this area of activity.
- To be able to assimilate new achievements in clinical and pharmaceutical objects.

IV. PREVIOUS CONDITIONALITIES AND REQUIREMENTS

The Medical Assistance object is based on theoretical and clinical knowledges of surgery, surgical semiology, surgical emergencies and principles of healthcare in the main surgical diseases. The Medical Assistance is a part of medicine, which is studied by students, after acquiring the knowledges from theoretical medical objects such as: anatomy, physiology, pharmacology, pathological anatomy and physiology. The acquired materials at the surgical objects will allow future pharmacists to possess a wider and more flexible vision in the diagnosis and treatment of surgical pathologies. Teaching the subject Medical Assistance to future pharmacists is necessary and indisputable, emerging from the particularities of the human body and the socio-economic problems of surgical pathologies. The ignorance of the basic elements of surgery and surgical rules can lead to serious consequences for patient, family, society.

V. TOPICS AND INDICATIVE ALLOCATION OF CLASSES

THE THEMATIC PLAN

of practical works at the subject - Medical Assistance for 2nd year students of the Pharmacy Faculty

No.	Topics	Number of hours	
		Practical lessons	Individual work
1.	Asepsis and antisepsis.	2	3
2.	The blood groups, blood group history. Agglutinins and agglutinogens. Determination of blood groups and rhesus factor. Errors in blood groups determination. Healthcare in determination of blood groups.	2	3



CD8.5.1DISCIPLINE CURRICULUM

Edition:

06

Date:

20.09.2017

Page 4/10

3.	Blood transfusion. Types, methods, techniques of hemotransfusion. Indications, contraindications and complications of blood transfusions (mechanic, reactive, infectious, allergic). Massive blood transfusions. Healthcare in hemotransfusion stages.	2	3
4.	Surgical infection. Etiopathogenesis. Classification. Local and general signs of the inflammatory process. Principles of general treatment. Principles and complications of antibiotherapy. Principles of healthcare in surgical infection.	2	3
5.	Furuncle, carbuncle, abscess, lymphadenitis, hidradenitis, erysipelas, phlegmon, mastitis. Etiopathogenesis, clinical manifestations, complications and treatment.	2	3
6.	Panaris, hand phlegmon. Etiopathogenesis, clinical manifestation, complications and treatment. Principles of healthcare.	2	3
7.	Healthcare in necrosis, gangrene, fistulas, ulcers.	2	3
8.	Acute appendicitis: etiology, pathogenesis, classification, clinical picture, diagnosis and treatment. Complications of acute appendicitis (appendiceal plastron, abscess, diffuse peritonitis, pylephlebitis and sepsis). Pathogenesis, clinical picture, diagnosis and treatment. Healthcare in acute appendicitis.	2	3
9.	Acute cholecystitis. Etiopathogenesis, classification, clinical picture, diagnosis, treatment and complications. Healthcare in acute cholecystitis.	2	3
10.	Acute pancreatitis. Etiopathogenesis, classification, clinical picture, diagnosis and treatment. Principles of healthcare.	2	3
11.	Complications of gastric and duodenal ulcers: perforation, penetration, bleeding, stenosis, malignization. Clinical picture, diagnosis and treatment. Endoscopic classification of gastrointestinal hemorrhages in gastric and duodenal ulcers (by Forest). Classification of gastrointestinal hemorrhages according to the hemorrhagic degree.	2	3
12.	Perforated ulcer of the stomach and duodenum. Etiopathogenesis, classification, diagnosis and treatment.	2	3
13.	Gastrointestinal hemorrhages. Etiopathogenesis, classification, clinical picture, diagnosis and treatment.	2	3
14.	Trauma of the abdomen. Classification, clinical picture, diagnosis and treatment. Principles of healthcare.	2	3
15.	Trauma of the thorax. Classification, clinical picture, diagnosis and treatment. Principles of healthcare.	2	3
16.	Hemorrhoids, anal fissure. Acute and chronic paraproctitis. Etiopathogenesis, diagnosis and treatment. Principles of healthcare.	2	3
17.	Peritonitis. Etiopathogenesis, classification, clinical picture, diagnosis and treatment. Localized peritonitis. COLOCVIUM	2	4
	Total hours	34	52

VI. REFERENCE OBJECTIVES AND CONTENT UNITS



CD8.5.1DISCIPLINE CURRICULUM

Edition: 06

Date: 20.09.2017

Page 5/10

OBJECTIVES

CONTENT UNITS

Theme (chapter) 1. Asepsis and antisepsis.

- To define basic concepts of asepsis and antisepsis.
- To know the methods of sterilization in asepsis and antisepsis.
- To know the methods of controlling the quality of sterilization.
- To assess the methods of asepsis and antisepsis in surgical department and operating room.
- To apply the acquired knowledges in general surgery clinics.
- To apply the learned information about asepsis and antisepsis into pharmacy and day by day practise.

The basic concepts of asepsis and antisepsis.
Methods of instruments sterilization.
Methods of controlling the quality of sterilization.
Rules of asepsis, measures of antisepsis and practical recommendations.

Theme (chapter) 2. Healthcare in determination of blood groups and hemotransfusion.

- To define blood groups, basic concepts, types, methods and techniques of hemotransfusion.
- To know the indications, contraindications of hemotransfusion, post-transfusion reactions and resuscitation measures of the patient.
- To estimate the indications of hemotransfusion, methods of blood groups determination, tests of compatibility used in blood transfusions.
- To possess methods of blood groups determination.
- To apply the acquired knowledges in everyday life.

The basic concepts of blood groups and blood transfusion. Blood transfusion guideline.
Indications and contraindications of hemotransfusion.
Types, methods and techniques of hemotransfusion.
Discussion of case studies in complications of blood transfusions.
Determination of blood groups and rhesus factor – practical guide.
Practical skills of methods and rules of blood groups determination.

Theme (chapter) 3. Principles of healthcare in surgical infection. Healthcare in necrosis, gangrene, fistulas, ulcers.

- To know ethiopathogenesis, classification, local and general signs of the inflammatory process which requires surgical treatment.
- To identify various forms of surgical infection.
- To apply principles of healthcare in treatment of localized surgical infection.
- To find the optimal surgical treatment for each type of localized surgical infection.

The basic concepts of localized and generalized surgical infection.
Healthcare in necrosis, gangrene, fistulas, ulcers.
The Celsius signs.
Treatment principles of surgical infection, necrosis, gangrene, fistulas, ulcers.
Discussion of case studies and treatment of various forms of surgical infection.



CD8.5.1DISCIPLINE CURRICULUM

Edition:

06

Date:

20.09.2017

Page 6/10

OBJECTIVES

CONTENT UNITS

Practical skills of treatment methods in localized surgical infection.

Healthcare in localized surgical infections – debridement, dressing wound, antimicrobial therapy.

Theme (chapter) 4. Healthcare in abdominal and chest traumas.

- To define the epidemiology, frequency and etiology of abdominal and thoracic traumas.
- To know classification, clinical picture, diagnosis and treatment of thoracic and abdominal trauma.
- To evaluate patients with chest and abdominal trauma.
- To apply the acquired knowledges into optimization of surgical treatment.
- To find the optimal surgical treatment for each case of thoracic and abdominal trauma.

Epidemiology and etiology of thoracic and abdominal trauma.

Clinical picture, differential diagnosis, laboratory and instrumental diagnosis and treatment of thoracic and abdominal traumas.

Optimization possibilities of surgical treatment.

Iatrogenic harm. Medical errors.

Theme (chapter) 5. Healthcare in acute abdomen

- To define criteria for acute surgical abdomen.
- To know the pathophysiological disorders, clinical picture and the basic international classifications of acute surgical pathologies of the peritoneal cavity.
- To assess clinical causes of acute surgical pathology of the peritoneal cavity (acute appendicitis, acute cholecystitis, intestinal occlusion, complicated gastroduodenal ulcer with perforation or haemorrhage, digestive tract bleeding, peritonitis)
- To apply the acquired knowledges for diagnosis and treatment methods optimization of patients with acute abdomen.
- To find the optimal surgical treatment for each pathology of acute surgical abdomen.

General features of acute abdomen (acute appendicitis, acute cholecystitis, intestinal obstruction, complicated gastroduodenal ulcer with perforation or haemorrhage, digestive tract bleeding, peritonitis).

Classification of acute surgical peritoneal pathologies.

Discussion of case studies in patients with acute abdomen.

Practical skills of diagnosis in acute abdomen.

Analysis of surgical tactics depending on the type of health problems of patients with acute abdomen.

Determination of surgical tactics depending on patient disease.

Theme (chapter) 6. Proctological pathology

- To define the notions: hemorrhoids, anal fissure, acute and chronic perirectis
- To know the etiopathogenesis, clinical picture, diagnosis and treatment of

General features of hemorrhoids, anal fissure, acute and chronic perirectitis.

General characteristics of haemorrhoids, anal fissure, acute and chronic perirectitis.



CD8.5.1DISCIPLINE CURRICULUM

Edition: 06

Date: 20.09.2017

Page 7/10

OBJECTIVES

- hemorrhoids, anal fissure, acute and chronic perirectitis.
- To determine the clinical causes of anal and perianal pathologies.
 - To apply the acquired knowledges for optimization of diagnosis and treatment methods of patients with anal pathology.
 - To find the optimal surgical treatment.

CONTENT UNITS

Healthcare and treatment of haemorrhoids, anal fissure, acute and chronic perirectitis.

Discussion of case studies in patients with anal and perianal pathology.

Possibilities for optimizing surgical treatment of patients with anal pathology.

Analysis of surgical tactics and healthcare depending on the type of anal pathology.

VII. PROFESSIONAL AND TRANSVERSAL SKILLS. STUDY FINALITIES.

PROFESSIONAL SKILLS (SPECIFIC)

- ✓ CP 1. Identification and use of concepts, principles and theories of Medical Assistance in professional activities.
- ✓ CP 2. Thorough knowing, understanding and working with theoretical knowledge and basic practical methods of Medical Assistance.
- ✓ CP 3. Thorough knowing and practical application of pathophysiological, clinical knowledge in relation to the patient, according to the age and character of the person, the specificity of the pathology and patient anterior experiences with doctors, in order to ensure the surgical compliance.
- ✓ CP 4. Professional possession of the diagnosis and treatment principles of the main surgical pathologies.
- ✓ CP 5. Application of special surgical principles and methods for developing models of specific communication problems with surgical patient and surgical team.

TRANSVERSAL SKILLS

- ✓ CT1. Application of rigorous and efficient working rules, manifestation of a responsible attitude towards the scientific and didactic field for optimal and creative valorification of own potential in specific situations, meanwhile respecting the principles and norms of professional ethics;
- ✓ CT2. Assurance of effective development and efficient involving in team activities.
- ✓ CT3. Identifying opportunities for continuous training and efficient use of learning resources and techniques of teaching for own development.

FINALITIES OF STUDY

At the end of course the student will be able:

- To know the components of a successful surgical act;
- To know the qualities and optimal behaviour for a successful practice of medicine;
- To identify the main types of mistakes from the beginning and during the physician and patient relationship (RIP - Dr - Pt);
- To formulate optimal decisions for providing first aid in critical situations;
- To apply surgical skills in professional activity and in everyday life.



CD8.5.1DISCIPLINE CURRICULUM

Edition: 06

Date: 20.09.2017

Page 8/10

VIII. STUDENT'S INDIVIDUAL WORK

No.	The expected product	Achievement strategies	Evaluation criteria	Deadline
1.	Working with books and ICT	Systematic work in library and in mediatech. Exploring the current electronic sources on the topic.	1. Quality of formed judgments, logical thinking, flexibility. 2. Systematization quality of the informational material achieved after own activity.	During the semester
2.	Reports	Analysis of relevant sources to the topic. Analysis, systematization and synthesis of information on the proposed theme. Making the report according the vigor rules and it's presentation to the chair.	1. Systematization quality and analysis of the informational material achieved after own activity. 2. Concordance of information with the proposed theme.	During the semester
3.	Analysis of study case	Choice and description of the study case. Analysis of the issues causes that appeared in the study case. Prognosis of the investigated case. Deduction of the expected case result.	1. Analysis, synthesis, generalization of data obtained through own investigation. 2. Formation of an algorithm of knowledge based on the obtained conclusions.	During the semester

IX. METHODOLOGICAL SUGGESTIONS FOR TEACHING-LEARNING-EVALUATION

Teaching and learning methods used

Retelling, interactive lectures, heuristic conversation, problem-solving, brainstorming, group work, individual study, work with textbook and scientific text, debate, role play, simulation, interactive listening.

Applied didactic strategies/technologies

Methods of assessment (including the final mark method of calculation)

Current: front and / or individual control via:

- application of docimological tests,
- solving problems / exercises,
- analysis of study case,
- playing role games on the discussed topics,



CD8.5.1DISCIPLINE CURRICULUM

Edition: 06

Date: 20.09.2017

Page 9/10

(e) 3 totalizations,

(f) evaluation of the individual work.

Final: Colocvium(oral examination) – attested/not attested

Mode of rounding up the marks at the evaluation stages

Intermediate note grid (annual average, grades from the exam stages)	National scoring system	Equivalent ECTS
1,00-3,00	2	F
3,01-4,99	4	FX
5,00	5	E
5,01-5,50	5,5	
5,51-6,0	6	
6,01-6,50	6,5	D
6,51-7,00	7	
7,01-7,50	7,5	C
7,51-8,00	8	
8,01-8,50	8,5	B
8,51-9,00	9	
9,01-9,50	9,5	A
9,51-10,0	10	

The annual average mark consists of the average mark from 3 totalizations and the individual work mark (coefficient – 0,5). The oral examination mark has the coefficient 0,5. Final mark is the sum of the annual average mark and the oral examination mark. Final mark will be expressed in number with two decimal according to the scoring scale (according to the table). If the final mark is higher than 5,00 the student is **attested**, but if it is 4,99 or lower - the student is **not attested**.

The groundless absence at the colocvium is recorded as "absent" and it is equivalent to 0 (zero). The student is allowed to 2 repeated trials in case of unsuccessful oral examination.

RECOMMENDED BIBLIOGRAPHY:

- A. compulsory:

No.	Name
1.	V.K.Gostishcev. <i>General surgery</i> . Moscow „Geotar - Media,, 2007.
2.	Gh. Ghidirim, E. Gutu, Gh. Rojnoveanu. <i>Textbook for students and residents. Surgical Pathology</i> . Chisinau. Publishing Center Medicina, 2006
3.	A. Bour, A.Leşco. <i>Surgery lecture notes/ Text book for practical classes in surgical pathology</i> , Medicina, 2008.



CD8.5.1DISCIPLINE CURRICULUM

Edition: 06

Date: 20.09.2017

Page 10/10

4. *Oxford text book of General Surgery* (from university electronic library).

- B. additional:

No.	Name
1.	Samuel Eric Wilson Manual of Surgery, University of California, Irvine, 2002 Edition
2.	Schwartz's Principles of Surgery, Ninth Edition by F. Brunicaudi, Dana Andersen, Timothy Billiar and David Dunn (Sep 11, 2009).