ANALYTIC EDUCATIONAL PROGRAM

Name of the course: Surgical diseases
Code of the course: S.07.0.051
Type of the course: Mandatory discipline
   Hours, total – 140 hours, including lectures – 40 hours, practical – 100 hours
Number of credits for course:
Authors teaching lectures: senior researcher, Igor Mișin, MD, PhD
teaching assistant, Marin Vozian
researcher, Gheorghe Zastavnițchi

Chișinău 2011
Aim of the Surgical Diseases course:

- Study the etiology, pathogenesis, classification and clinical signs, diagnosis and differential diagnosis, and treatment of surgical diseases;
- Study the theory and practical skills, which will allow the future doctor to deal with emergency situations and to build an adequate algorithm of emergency examination and treatment;
- Assimilation of the diagnostic methods, management of different surgical pathologies;
- Giving emergency care to the patients with different surgical pathologies.

Objectives within the Surgical Diseases course:

Understanding:

- Recognizing the surgical diseases in a patient;
- To know the particularities of the onset and evolution of different surgical pathologies;
- To understand the methods and particularities of patients’ examination;
- When and how to transfer a patient to specialized departments;
- To know the incidence, etiology and pathogenesis of abdominal surgical diseases, as well as abdominal trauma;
- To know the modern diagnostic methods (emergency and elective) in surgical diseases;
- To know the modern treatment methods of abdominal surgical diseases and abdominal trauma;
- To know the prophylaxis methods of acute and chronic pathologies of the abdominal organs.

Performing:

- Collect and evaluate correctly of the history data;
- Perform correct physical examination of the patients with different surgical pathologies;
- Establish correct presumptive diagnosis;
- Assess the patients’ general state severity;
- Provide emergency care in critical situations.

Teaching of the Surgical Diseases is done in a classical fashion: from semiology to detailed study of the every surgical pathology.

Understanding:

- To appreciate the role of surgical diseases within medicine;
- To address creatively fundamental medicine issues;
- To create interrelations between Surgical Diseases and other medical disciplines;
- To implement and integrate of the obtained knowledge with fundamental disciplines;
- To evaluate adequately the gained knowledge;
- To assimilate new trends in the surgical diseases field and to integrate it with other medical disciplines.

Requirements:

Surgical Diseases is a surgical discipline which establishes the diagnosis and treats by the means of surgical and non-surgical maneuvers the surgical pathologies in adults.

Teaching Surgica Diseases is mandatory, based on the particularities of the human body and social-economic issues of the surgical pathologies. Knowing the surgical pathologies is very important, because the general practitioner is the first to consult a patient, and early diagnosis, adequate treatment and follow up of a surgical patient depends on his knowledge. Not knowing the basic principles of the surgical diseases by the general practitioners may have severe consequences for the patient, family, society.
In order to understand well the discipline a student should possess strong knowledge in the field of Biology, Chemistry, Anatomy, Histology, Biochemistry, Pharmacology, Morphopathology, Physiopathology, etc., obtained during the first 3 years.

**Basic content of the course: A. Lectures:**

<table>
<thead>
<tr>
<th>Nr.</th>
<th>TOPIC</th>
<th>Nr. of hours</th>
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<tbody>
<tr>
<td>1</td>
<td>Acute appendicitis: classification. Clinical features. Diagnosis and differential diagnosis, surgical treatment.</td>
<td>2</td>
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<tr>
<td>2</td>
<td>Evolutional complications of acute appendicitis: symptoms, diagnosis, and management. Postoperative complications. Chronic appendicitis.</td>
<td>2</td>
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<tr>
<td>3</td>
<td>Intestinal obstruction: etiology, pathogenesis. Homeostasis and hydro-saline imbalances in intestinal obstruction. Classification, clinical features, diagnosis, differential diagnosis.</td>
<td>2</td>
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<tr>
<td>4</td>
<td>Intestinal obstruction: clinical forms (volvulus, intussusceptions, obstructive tumors, gallstone ileus etc), clinical features, differential diagnosis, surgical management. Pre- and postoperative period: preoperative preparation, postoperative treatment, methods of intestinal function stimulation, postoperative complications.</td>
<td>2</td>
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<tr>
<td>5</td>
<td>Hernias of the abdominal wall. Anatomy, topography of the abdominal wall. Simple (reducible) hernias. Diagnosis. Treatment.</td>
<td>2</td>
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<tr>
<td>13</td>
<td>Early complications of acute pancreatitis: classification, clinical features, diagnosis, treatment. Late complications of acute pancreatitis: classification, clinical features, diagnosis, treatment.</td>
<td>2</td>
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<tr>
<td>14</td>
<td>Peritonitis: etiopathogenesis, classifications, primary, secondary, tertiary peritonitis. Clinical features. Diagnosis and differential diagnosis.</td>
<td>2</td>
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<tr>
<td>15</td>
<td>Treatment of peritonitis: preoperative preparation; intraoperative tactics: volume of surgery, lavage and drainage of the peritoneal cavity; postoperative management.</td>
<td>2</td>
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</table>
17 Acute complications of the gastroduodenal ulcer: perforation, bleeding. Clinical features. Diagnosis. Surgical management. 2
18 Chronic complications of the gastroduodenal ulcer: penetration, pyloric stenosis, malignancy. Clinical features. Diagnosis. Surgical management. 2
19 Thoracic trauma: classification, clinical features, diagnosis, treatment. 2
20 Abdominal trauma: classification, clinical features, paraclinical methods of examination. Traumatic injuries of solid and hollow abdominal organs: clinical features, diagnosis, treatment. 2

TOTAL 40

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**B. Practical:**

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<td>4</td>
<td>Intestinal obstruction: clinical forms (volvulus, intussusceptions, obstructive tumors, gallstone ileus etc), clinical features, differential diagnosis, surgical management. Pre- and postoperative period: preoperative preparation, postoperative treatment, methods of intestinal function stimulation, postoperative complications.</td>
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Peritonitis: etiopathogenesis, classifications, primary, secondary, tertiary peritonitis. Clinical features. Diagnosis and differential diagnosis.

Treatment of peritonitis: preoperative preparation; intraoperative tactics: volume of surgery, lavage and drainage of the peritoneal cavity; postoperative management.


Acute complications of the gastroduodenal ulcer: perforation, bleeding. Clinical features. Diagnosis. Surgical management.

Chronic complications of the gastroduodenal ulcer: penetration, pyloric stenosis, malignancy. Clinical features. Diagnosis. Surgical management.


TOTAL 100

PRACTICAL SKILLS

I. **History:** Correct interpretation of history data.

II. **Methods of patients’ examination with different surgical diseases:** acute appendicitis; intestinal obstruction; abdominal wall hernias; venous pathology of the lower limbs; cholelithiasis; acute pancreatitis; peritonitis; peptic ulcer disease; thoracic and abdominal trauma.

III. **Interpretation of paraclinical data:**
2. X-ray evaluation. Radiologic signs in:
   - Hollow organ perforation;
   - Intestinal obstruction;
   - Thoracic and abdominal trauma;
   - Peritonitis;
   - Abdominal tumors;
   - Biliary pathology;
   - Pancreatic diseases;
   - Venous pathology of the lower limbs.

IV. **Diagnostic and treatment procedures:**
   - Esophageal and gastric tube placement;
• Blackmore probe placement;
• Pleural puncture;
• Thoracostomy. Aspiration types;
• Pericardium puncture;
• Paracentesis;
• Urinary catheter placement;
• Diagnostic maneuvers for different abdominal diseases;
• Anal divulsion;
• Enemas;
• Diaphanoscopy;
• Rectal examination;
• Vaginal examination;
• Douglas pouch puncture;
• Petrescu procedure;
• Schwartz procedure;

V. Emergency care in:
• Acute respiratory failure;
• Acute cardiovascular failure;
• Cardiac arrest;
• Pulmonary bleeding;
• Digestive bleeding;
• External bleeding;
• Anaphylactic shock;
• Electric trauma.

VI. Medical strategy in:
• Hollow organ perforation;
• Acute appendicitis;
• Intestinal obstruction;
• Strangulated hernia;
• Acute cholecystitis;
• Obstructive jaundice;
• Acute pancreatitis;
• Thoracic and abdominal trauma;
• Digestive bleeding;
• Pulmonary bleeding;
• Peritonitis;
• Pulmonary thromboembolism;
• Mesenteric ischemia;
• Acute thrombophlebitis;
• Anaphylactic shock;
• Coma.

Bibliography:
1. Gh. Ghidirim, E. Gutu, Gh. Rojnoveanu. Surgical pathology
Methods of teaching and learning:

Surgical diseases course is taught in a classical way: with lectures and practical seminars. During lectures theoretical data are provided by the lecturers. During practical seminars clinical cases are studied, physical and paraclinical examination of the patient, diagnosis, medical care, treatment, prophylaxis and treatment of complications, discussion of the data given at lectures.

Within the surgical departments the students will participate at the rounds, patients’ presentation and discussion, conferences, will manage patients, visit the operating room etc. Lectures and seminars are held within clinical departments of the chair: septic surgery, aseptic surgery, trauma surgery, endoscopy.

Clinical facilities are within CNSPMU and SCM nr.2 "Sf. Arh. Mihail".

Discipline Surgical diseases is studied during IV university year, semester VII and VIII. The state exam has more than 65% of questions from Surgical Diseases.

Suggestions for individual activity:

Contact with the patient is very important, physical examination, assessment of clinical data.

Main part of the seminar is working with patients, practical skills learning.

All the particularities of every surgical pathology is discussed according to analytic program.

In order to succeed a student should:

- Initially read the material. Make notes. Try to underline main moments. Study the schemes and figures from the books.
- Be present at lectures and seminars, but not only for the presence itself. Try to understand the information.
- Ask questions.

Evaluation:

At the end of the course students are evaluated by: practical exam including patient examination, test and oral exam. 100 minutes are given for the test (1 minute per question). Tests have several variants with 100 questions. Students who didn’t recover the absences and didn’t pass the practical exam are not admitted to the final exam.

Questions from Surgical Diseases are included in the State Exam (test "Test Editor" USMF "Nicolae Testemiţanu" and oral exam).

Knowledge evaluation is performed with marks from 1 to 10 as follows:

- 10 or "excellent" (ECTS-A) for 91-100% material knowledge;
- 9 or "very good" (ECTS-B) for 81-90% material knowledge;
- 8 or "good" (ECTS-C) for 71-80% material knowledge;
- 6 and 7 or "satisfactory" (ECTS-D) for 61-65% and 66-70% material knowledge;
- 5 or "poor" (ECTS-E) for 51-60% material knowledge;
- 3 and 4 (ECTS-FX) for 31-40% and 41-50% material knowledge;
- 1 and 2 or "bad" (ECTS-F) for 0-30% material knowledge.
Final mark is obtained as a median from current and final evaluation. Current evaluation below “5” does not permit the admission to the final evaluation. Absence from the exam is noted as 0 (zero).