

**MINISTRY OF SCIENCE AND HIGHER EDUCATION
RUSSIAN FEDERATION**

**FEDERAL STATE AUTONOMOUS EDUCATIONAL INSTITUTION OF
HIGHER EDUCATION
NORTH-CAUCASUS FEDERAL UNIVERSITY**

Methodological Guidelines
for Students on arranging and performing independent work
in the Discipline of "Faculty surgery"
for Students majoring (Specialty) in 31.05.01 General Medicine

Explanatory note

The purpose of mastering the discipline is the formation of students' theoretical knowledge and skills to diagnose surgical and urological diseases, determine the method of their treatment and prevention, the formation of the future specialist of the basics of clinical thinking.

Objectives of the discipline: familiarization of students with the principles of organization and operation of the surgical and urological department, prevention of infectious, parasitic, and non-infectious diseases in the surgical office; etiology, pathogenesis, clinical signs, treatment and prevention of surgical and urological diseases; with the principles of measures for the prevention of nosocomial infections in medical institutions, the creation of favorable conditions for patients and working conditions for medical personnel; principles of diagnosis of surgical and urological diseases that cause life-threatening complications and concomitant diseases; correct preliminary diagnosis and referral of the patient for examination; diagnosis of acute pathology in surgical and urological patients; formation of students' skills in providing pre-medical care in patients with injuries and wounds in peacetime; training students in first aid in patients with injuries and wounds in peacetime; professional skills in the sound, comprehensive use of radiation imaging techniques necessary for further education and professional activity in medical specialties.

List of planned learning outcomes for the discipline, correlated with the planned outcomes of the higher education program.

Code and definition of the competence	Code and definition of the indicator	Planned learning outcomes for the discipline (module) describing the stages of competency and indicator development
UK-1 Capable of carrying out a critical analysis of problematic situations on the basis of a systematic approach, developing a strategy of action.	ID-1 UK-1 identifies a problem situation, analyzes and diagnoses it based on a system approach	Raising a well-rounded personality
PC-3 Capable of determining the patient's main pathological conditions, symptoms, disease syndromes, nosological forms in accordance with International Statistical Classification of Diseases and Health-Related Problems, X revision.	ID-2 PC-3. Identifies the main pathological symptoms and syndromes, and formulates a clinical diagnosis in accordance with the ICD-10	Forming clinical thinking
PC-6 Ready to determine the need for the use of natural healing factors, drug, non-drug therapy and other methods in patients in need of medical rehabilitation and resort treatment	ID-2 PC-6 Determines medical indications for carrying out measures medical rehabilitation, including when implementing an individual program of rehabilitation or habilitation disabled people, in accordance with current procedures for providing medical care, clinical recommendations (treatment protocols) on issues of providing medical care, taking into account standards of medical care.	Acquiring special medical skills and applying them in practical healthcare

Methodological Recommendations for Studying Theoretical Material

When performing the independent study of theoretical material, the student must follow the rules as set below. The working curriculum of the respective academic discipline shall be recommended to be used as the basis for such activity. According to the schedule of classroom lessons and independent work, a different number of hours is to be allocated for studying individual topics. A significant portion of the student's independent work should be allocated to mastering the material on the covered topic, writing a summary (notes) on the specified theoretical blocks, and searching for additional literature based on the NCFU library and via the Internet system. The lecture material shall not cover all theoretical material; the greater part of it must be mastered through independent work. Given the above, working with the recommended literature is mandatory. Special attention must be paid to the content of the main provisions and conclusions, the explanation of phenomena and facts, and the understanding of the practical application of the theoretical issues under consideration. In the process of this work, the student should strive to understand and memorize the main provisions of the material being considered, the examples illustrating it, as well as to understand the illustrative material. Preparation should be completed by drawing up a plan (summary/notes) on the material (issue) being studied. This allows for the creation of a concentrated, concise representation of the issues being studied. First, studying the recommended literature is to be done. Special attention must be paid to the content of the main provisions and conclusions, the explanation of phenomena and facts, and the understanding of the practical application of the theoretical issues under consideration.

During this work, the student should strive to understand and memorize the main provisions of the material being considered, the examples illustrating it, as well as to understand the illustrative material. Preparation should be completed by drawing up a plan (summary/notes) on the material (issue) being studied. This allows for the creation of a concentrated, concise representation of the issues being studied. If necessary, one should seek (advice) consultation from the instructor. When going to a consultation, it is necessary to thoroughly think through the questions that require clarification. Keeping records contributes to turning reading into an active process, mobilizing motor memory along with visual memory. The following should be born in mind: a student who systematically keeps records creates their own individual stock of auxiliary materials for a quick review of what has been read and for the mobilization of accumulated knowledge. Records are especially important and useful when they reflect the thoughts that arose during independent work.

It is important to develop the students' capacity to compare sources and to think through the material being studied.

Improving note-taking skills among students is of great importance.

The instructor may recommend the following main forms of recording to students: a plan (simple and detailed), excerpts, and theses (abstracts).

The results of note-taking can be presented in various forms.

- A plan is an outline of the read material, a brief (or detailed) list of questions reflecting the structure and sequence of the material.
- A detailed plan fully replaces a summary.
- A summary (notes) is a systematized, logical presentation of the source material. Four types of summaries are distinguished:
 - Outline-summary (Plan-notes) – this is an expanded, detailed plan in which sufficiently detailed records are provided for those points of the plan that need explanation.
 - Textual summary – this is the reproduction of the most important provisions and facts of the source.
 - Free summary – these are clearly and briefly formulated (stated) main provisions resulting from a deep understanding of the material. It may contain excerpts, quotations, and theses; part of the material may be represented by a plan.

- Theme-based summary – this is compiled on the basis of studying a number of sources and gives a more or less exhaustive answer according to a certain scheme (issue).

Methodological Guidelines for the Preparation for Practical Activities

When preparing for practical activities, the recommendation implies studying the control questions for the given lesson and the theoretical material from one's own notes.

The main form of work during the lessons is an interview (discussion). Each student must be ready to speak on all issues raised in the plan and demonstrate maximum activity during their consideration.

The speech must be constructed freely, convincingly, and with arguments. The instructor ensures that the speech is not reduced to a reproductive level (simple reproduction of the text); simple reading of the summary is also not allowed.

It is necessary for the speaker to show their own attitude towards what they are talking about, express their personal opinion and understanding, substantiate it, and be able to draw the correct conclusions from what has been said. In doing so, the student may refer to the entries in the summary, directly to the primary sources, use knowledge of previously studied disciplines, etc. In addition, to obtain a grade at an advanced level, students solve situational tasks based on the results of the mastered topics.

During the execution of practical works, a defense of practical skills is provided, the full list of which is specified in the fund of assessment tools.

Methodological Recommendations for the Preparation of Presentations and Reports

The report must contain elements of novelty; along with the fundamental aspect, an analysis of the current state of the problem under study must be carried out, as well as inclusion in regional issues. The report must include an introduction, a theoretical part, a conclusion, a list of literature, and a presentation that reveals the essence of the topic in graphs, pictures, diagrams, and formulas.

The report is recommended to be submitted on 1 printed sheet. The text of the work must be printed with 1.5 line spacing on one side of a standard sheet (A4) of white paper.

The text and other printed elements of the work must be black, and the contours of letters and signs must be clear, without halos and shading. The font must be Times New Roman, size 14. The titles of chapters and paragraphs are highlighted in bold. The sheet with text must have margins: left – 30 mm, right – 10 mm, top – 20 mm, bottom – 20 mm.

Page numbering of the text is done in the lower right corner of the sheet. It is necessary to number pages starting from the page where the Introduction is printed, on which the number 3 is placed. After that, all pages, including appendices, are numbered.

A space equal to two intervals is placed between the title of the chapter and the title of the paragraph of this chapter, and the title of the paragraph must not be separated from the text of this paragraph by a space. The titles of paragraphs shall be separated from the text of the previous paragraph by a space equal to two intervals. Each chapter, as well as the introduction, conclusions, appendices, and the list of used literature, begin on a new page. The word Chapter is not to be written. Chapters have ordinal numbers within the entire work, designated by Arabic numerals (for example: 1, 2, 3), followed by a period.

The word **PARAGRAPH** or the paragraph symbol (§) is not placed in the title. Paragraphs have ordinal numbers within the chapters, designated by Arabic numerals (for example: 1.1. and 1.2.).

Headings of chapters and paragraphs in the text must be centered; a period shall not be placed at the end of the title of the chapter and paragraph. It is not allowed to hyphenate (transfer) a part of a word in a heading. 4.5. The numbering of tables and figures can be running (continuous) or relate to the number of the chapter and paragraph. For example, if a table or a figure is included in the text of the first paragraph of the second chapter, the numbering is as follows: Table 2.1.1., Fig. 2.1.1.

The last digit means the ordinal number of the table (or figure) in this paragraph.
The table is to be placed as the next page after the first mention of it in the text.

Recommended literature.

Main literature:

1. Fundamentals of Operative Surgery Electronic resource / O. B. Begishev [et al.]; ed. S. A. Simbirtsev. - Fundamentals of Operative Surgery, 2022-03-15. - Saint Petersburg: Foliant, 2015. - 728 p. - The book is in the premium version of IPR BOOKS. - ISBN 978-5-93929-256-6
2. Practical Course on Operative Surgery. Laparoscopic Surgery Electronic resource Textbook / A. V. Protasov [et al.]. - Moscow Russian University of Friendship of Peoples, 2013. - 128 p. - The book is in the premium version of IPR BOOKS. - ISBN 978-5-209-05476-4

Additional literature:

1. Vasilyev, V. K. Workbook for laboratory and practical exercises and independent work in general and private surgery Electronic resource / Vasiliev V. K., Tsybikzhapov A.D. - 2nd ed., ster. - St. Petersburg: Lan Publ., 2020. -56 p. - ISBN 978-5-8114-5277-4
2. Selected Issues of Surgery Electronic Resource: Textbook / M. A. Chinikov [et al.]. - Moscow: Russian University of Peoples' Friendship, 2013. - 120 p. -The book is available in the premium version of IPR BOOKS. - ISBN 978-5-209-04840-4
3. Krivenya, M. S. Surgery Electronic Resource: Textbook / M. S. Krivenya. -Surgery, 2021-10-06. - Minsk: Vysheyskaya Shkola, 2014. - 414 p. - The book is available in the premium version of IPR BOOKS. - ISBN 978-985-06-2399-7
4. Nekhaev, A. N. Practical Skills in General Surgery Electronic resource:Textbook / A. N. Nekhaev, G. P. Rychagov. - Practical Skills in General Surgery, 2020-02-24. - Minsk: Vysheyshaya Shkola, 2012. - 525 p. - The book is in the premium version of IPR BOOKS. - ISBN 978-985-06-2087-3
5. Operative Surgery with Topographic Anatomy Electronic resource / E. I.Veremey [et al.] ed.: E. I. Veremey, B. S. Semenov. - Operative Surgery with topographic anatomy, 2022-02-10. - Saint Petersburg: Kvadro, 2016. - 560 p. -The book is in the premium version of the IPR BOOKS electronic library. - ISBN 978-5-91258-233-2
6. Rychagov, G. P. Surgical Diseases. Part 1. General Surgery Electronic resource: Textbook / G. P. Rychagov, A. N. Nekhaev. - Surgical Diseases. Part 1.General Surgery, 2020-02-24. - Minsk: Vysheyskaya Shkola, 2012. - 428 p. - Book is in the premium version of IPR BOOKS EBS. - ISBN 978-985-06-1647-0
7. Rychagov, G. P. Surgical Diseases. Part 2. Private Surgery Electronic resource: Textbook / G. P. Rychagov, A. N. Nekhaev. - Surgical Diseases. Part 2.Private Surgery, 2020-02-24. - Minsk: Vysheyshaya Shkola, 2012. - 479 p. - The book is available in the premium version of IPR BOOKS. - ISBN 978-985-06-2204-4

Internet resources:

1. <http://rudactor.net> / - Medical portal
2. <http://www.pubmed.com> / - database of full-text articles on medicine
3. <http://www.spravocnikpolekarstvam.ru> / - free online pharmacological reference book
4. <https://www.rmj.ru> / - Russian Medical Journal

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7-8 SEMESTER

Practical lesson No. 1

Purpose: Definition of the concept. Elements of abdominal hernia. Anatomical features of sliding hernias. Classification of hernias by origin, localization, and course. Etiology, pathogenesis (general and local causes, predisposing and producing factors). General symptomatology of hernias. Diagnostics. Treatment (surgical). Principles of surgery. Contraindications to surgery. Prevention of hernias. Hernias of the white line of the abdomen. Anatomical data. Clinic, diagnostics. Methods of surgery. Umbilical hernias. Anatomical data. Clinic, diagnostics, differential diagnostics.

Protocol design: describe the results obtained. Make appropriate conclusions.

Practical training session No. 2

Purpose: Methods of surgery (Lexer, Mayo, Sapeshko). Inguinal hernias. Anatomy of an inguinal hernia. Direct and oblique inguinal hernias (anatomical and clinical differences). Congenital inguinal hernia. Diagnosis and differential diagnosis of inguinal hernias. Methods of surgery (plastic surgery according to Roux, Bobrov, Martynov, Spasokukotsky, Bassini, Kukudzhanyov). Femoral hernias. Anatomy of the femoral canal. Clinic. Diagnosis, differential diagnosis. Methods of operations (Bassini, Rugi, Perla Vecchio). Postoperative hernias. Causes of occurrence. Clinic, diagnostics. Methods of operations (Sapeshko, alloplasty). Preparation of patients for surgery, management of the postoperative period. Results of surgical treatment.

Protocol design: describe the results obtained. Make appropriate conclusions.

Practical lesson No. 3

Purpose: Causes of hernia recurrence. Complications of hernias. Inflammation, irreducibility, coprostasis, strangulation. Inflammation of a hernia. Reasons. Clinic, diagnostics, differential diagnosis, treatment. Inability to hernia. Definition of the concept. Clinic, diagnostics, treatment. Coprostasis. Definition of the concept. Clinic, diagnostics, treatment. The trapped hernia. Definition of the concept. The mechanism of fecal and elastic entrapment. Pathological and anatomical changes in the strangulated organ (strangulation furrow, changes in the strangulated intestine, the leading loop, the leading loop, hernia water, ischemic necrosis). Types of strangulation: retrograde, parietal. Clinic of strangulated hernia, diagnosis, differential diagnosis. Treatment of strangulated hernias. Features of operative technique, determination of the viability of the strangulated organ, indications for resection of the intestine, indications for the removal of the strangulated organ. Tactics in case of doubtful diagnosis. Tactics in case of spontaneous reduction of a strangulated hernia. Complications in case of spontaneous and forced reduction of a strangulated hernia. Imaginary reduction. False strangulation.

Protocol design: describe the results obtained. Make appropriate conclusions.

Practical lesson No. 4

Purpose: Anatomical and physiological information about the cecum and appendix. Classification of diseases. Acute appendicitis. Classification. Pathological and anatomical forms. Etiology, pathogenesis. Clinic, diagnostics, differential diagnosis.

Protocol design: describe the results obtained. Make appropriate conclusions.

Practical lesson No. 5

Purpose: Features of the course of acute appendicitis in children, pregnant women, the elderly. Indications and contraindications to appendectomy. Features of operative technique depending on the forms of acute appendicitis. Preparation of patients for surgery, management of the postoperative period. Results of surgical treatment.

Protocol design: describe the results obtained. Make appropriate conclusions.

Practical lesson No. 6

Purpose: Complications of acute appendicitis (infiltrates, abscesses of the ileocecal area, interintestinal abscess, pylephlebitis). The clinic of various complications, diagnosis and treatment of them. The importance of sanitary and educational work among the population and the organization of emergency care in reducing complications and lethality in acute appendicitis.

Protocol design: describe the results obtained. Make appropriate conclusions.

Practical session No. 7

Purpose: Chronic appendicitis. Classification. Clinic, diagnostics, differential diagnostics. Indications and contraindications for surgical treatment. Postoperative complications. Clinic of complications, diagnostics and treatment. Postoperative management of patients.

Protocol design: describe the results obtained. Make appropriate conclusions.

Practical lesson No. 8

Purpose: Anatomical and physiological information about the stomach and duodenum. Classification of stomach diseases. Methods of examination of patients with stomach diseases. Cullen and penetrating ulcers. Clinic, diagnostics, differential diagnostics. Scarring deformations of the stomach and duodenum: narrowing of the pylorus, body of the stomach, cardia, "snail-shaped" deformation. Clinic, diagnostics, differential diagnostics. Water and electrolyte disorders, their prevention and treatment. Perforated stomach and duodenal ulcers. Classification of perforations, pathological anatomy.

Protocol design: describe the results obtained. Make appropriate conclusions.

Practical lesson No. 9

Purpose: Clinic (primary shock, stage of apparent well-being, stage of diffuse peritonitis). Differential diagnosis. Operative treatment: suturing perforated hole, gastric resection. "covering" perforation, "pre-perforation" state. Atypical perforations. Bleeding stomach and duodenum ulcer. Classification of bleeding. Pathological anatomy. Pathogenesis of disorders. Clinic of gastrointestinal bleeding. Diagnosis, differential diagnosis.

Protocol design: describe the results obtained. Make appropriate conclusions.

Practical lesson No. 10

Purpose: Conservative treatment of bleeding ulcers. Operative treatment. Operative treatment of stomach and duodenal ulcers. Indications and contraindications for surgery. The main stages of the development of gastric surgery. Methods of operations: gastric resection, gastroenterostomy, vagotomy.

Protocol design: describe the results obtained. Make appropriate conclusions.

Practical lesson No. 11

Purpose: Types of gastrointestinal anastomoses in gastric resection: Billroth method -1, Billroth method - 2, Finsterer, Polia-Reichel, Balfour, Roux, antrumectomy with selective and trunk vagotomy, replacement of the resected part of the stomach transplant from the small and large intestines

Protocol design: describe the results obtained. Make the appropriate ones conclusions.

Practical session No. 12

Purpose: Classification of diseases, examination methods for patients with diseases of the gallbladder and bile ducts. Gallstone disease. Pathogenesis of stone formation (injection theory, bile stagnation theory, metabolic disorder theory). Clinic. Diagnostics. Differential diagnosis. Treatment.

Protocol design: describe the results obtained. Make the appropriate conclusions.

Practical lesson No. 13

Purpose: Indications for surgery. Methods of surgery: cholecystostomy, cholecystectomy. Acute and chronic cholecystitis. Classification. Clinic, diagnostics, differential diagnosis. Treatment. Indications for surgery. Dropsy and empyema of the gallbladder the bubble. Clinic, diagnosis, and treatment. Blockage of the common bile duct (choledocholithiasis, cicatricial strictures). Clinic, diagnostics, differential diagnosis obstructive jaundice.

Protocol design: describe the results obtained. Make the appropriate ones conclusions.

Practical exercise No. 14

Purpose: Cholemia and acholia, their origin and complications. Features operations in jaundiced patients, preoperative preparation, and measures to prevent cholemic bleeding.

Protocol design: describe the results obtained. Make appropriate conclusions.

Practical exercise No. 15

Purpose: Cholangitis. Classification. Clinic, diagnostics, and differential diagnosis. Treatment

Protocol design: describe the results obtained. Make the appropriate conclusions.

Practical exercise No. 16

Purpose: Anatomical and physiological information about the pancreas. Classification diseases. Pancreatitis. Definition of the concept. Classification of pancreatitis. Sharp pancreatitis (edematous form, fatty pancreatonecrosis, hemorrhagic pancreatonecrosis).

Protocol design: describe the results obtained. Make appropriate conclusions.

Practical lesson No. 17

Purpose: Modern understanding of etiology and pathogenesis. Importance for development diseases of morphological changes in the area of the Vater's nipple, duodenostasis, disorders diets, the role of infection, vascular disorders, factors contributing to activation pancreatic enzymes, the importance of the kinin system. The concept of "trypsin" and "lipase" stages of the disease development. Pathological anatomy of acute pancreatitis. Clinic.

Protocol design: describe the results obtained. Make appropriate conclusions.

Practical lesson No. 18

Purpose: Complications (abscess, pancreatic fistula, pseudocyst, peritonitis).

The importance of laboratory methods in the diagnosis of the disease. Differential diagnosis. Drug treatment of acute pancreatitis. Indications for surgical intervention and types of operations. Outcomes of conservative and surgical treatment.

Protocol: describe the results obtained. Make the appropriate ones conclusions.

Practical session No. 19

Purpose: Endovideosurgical methods of diagnosis and treatment of acute pancreatitis. Treatment of patients with acute pancreatitis. Chronic pancreatitis. Classification chronic pancreatitis. Cysts and pancreatic fistulas. Principles conservative treatment. Types of surgeries for various forms of chronic pancreatitis.

Protocol design: describe the results obtained. Make appropriate conclusions.

Practical session No. 20

Purpose: Definition of the concept. Classification (by origin, pathogenesis, anatomical localization, and clinical course). Methods of examining patients. Dynamic (spastic, paralytic) intestinal obstruction. Etiology, pathogenesis. Dynamic intestinal obstruction as a symptom of acute organ diseases thoracic, abdominal, and retroperitoneal cavities.

Protocol design: describe the results obtained. Make the appropriate ones conclusions.

Practical lesson No. 21

Purpose: Clinic, differential diagnosis. Principles of conservative and operative treatment. Mechanical intestinal obstruction (obstructive, strangulatory). Classification of mechanical intestinal obstruction. Obstructive intestinal obstruction. Definition of the concept. Reasons. Pathogenesis. Features disorders of water-electrolyte balance and acid-base state. Clinic, diagnosis, differential diagnosis. Determination of the level of obstruction. Kinds operations. Pathogenetic treatment.

Protocol design: describe the results obtained. Make appropriate conclusions.

Practical lesson No. 22

Purpose: Strangulated intestinal obstruction. Definition of the concept. Twisting, knot formation, and strangulation. Reasons. The peculiarity of pathogenesis. Clinic of various types strangulation intestinal obstruction. Diagnosis, differential diagnosis. Types of operations. Indications for intestinal resection. Intussusception. Definition of the concept. Kinds invagination. Reasons. Pathogenesis.

Protocol design: describe the results obtained. Make appropriate conclusions.

Practical lesson No. 23

Purpose: Invagination as a combination of obturation and strangulation intestinal the obstruction. Clinic, diagnosis, differential diagnosis. Types of operations. Indications for disinvagination and resection of the invaginate. Impaired intestinal patency. Reasons. Pathogenesis. Clinic, diagnostics, differential diagnosis. Conservative and surgical treatment. Preoperative preparation and management of the postoperative period in patients with acute intestinal obstruction. Control of intoxication, paresis of the intestines, hydroionic disorders

Protocol design: describe the results obtained. Make appropriate conclusions.

Practical exercise No. 24

Purpose: Anatomical and physiological information about the rectum. Classification diseases. Examination methods for patients with rectal diseases. Hemorrhoids. Definition of the concept.

Protocol design: describe the results obtained. Make appropriate conclusions.

Practical exercise No. 25

Purpose: Classification. Etiology. Pathogenesis. Enlargement of hemorrhoidal veins as a symptom of liver cirrhosis, pelvic tumors, and other diseases.

Protocol design: describe the results obtained. Make appropriate conclusions.

Practical session No. 26

Purpose: Clinic of hemorrhoids and their various complications. Conservative treatment. Operative treatment of hemorrhoids. Selection of treatment methods.

Protocol design: describe the results obtained. Make appropriate conclusions.

Practical lesson No. 27

Purpose: Preoperative preparation, management of the postoperative period. Anal crack, causes of occurrence. Clinic, diagnosis, treatment

Protocol design: describe the results obtained. Make the appropriate ones conclusions.

Practical lesson No. 28

Purpose: Anatomical and physiological information about the esophagus. Classification of diseases the esophagus. Research methods (X-ray, X-ray, esophagoscopy, pneumomediastinography, radiokinomatography, radioisotope diagnostics, computed tomography, positron emission tomography). Chemical burns and cicatricial narrowing of the esophagus. Pathogenesis, acute period clinic. First aid and principles of treatment in the acute period.

Protocol design: describe the results obtained. Make appropriate conclusions.

Practical lesson No. 29

Purpose: The importance of corticosteroids in preventing esophageal structures. Early and late bougienage. The clinic of esophageal cicatric stenosis, localization and forms of stenosis. Diagnostics. Treatment with bougienage, bougienage methods, and indications for them.

Protocol design: describe the results obtained. Make appropriate conclusions.

Practical session No. 30

Purpose: Surgical treatment. Types of plastic replacement of the esophagus (plastic esophagus with small and large intestine, combined plastic). One-stage and multi-stage operations. Results of surgical treatment. Tumors. Benign tumors of the esophagus. Clinic, diagnostics. Methods of surgical treatment.

Protocol design: describe the results obtained. Make the appropriate ones conclusions.

Practical exercise No. 31

Purpose: Anatomical and physiological information about the thyroid gland. Classification diseases. Methods of patient research. Endemic goiter. Definition of the concept. Classification according to the degree of magnification and shape. Pathological anatomy. Etiology (theory iodine deficiency, the importance of strumogenic substances, sanitary and hygienic conditions). Pathogenesis. Signs of goiter endemic. Clinic, diagnostics. Treatment. Indications for operation. Prevention. Sporadic goiter. Definition of the concept. Classification by degree of thyroid enlargement, form. Clinic, diagnostics, treatment.

Protocol design: describe the results obtained. Make appropriate conclusions

Practical lesson No. 32

Purpose: Thyroiditis and stromatitis. Definition of the concept. Etiology, pathogenesis. Clinic, diagnosis, differential diagnosis. Treatment conservative and surgical. Immediate and long-term results. Hashimoto's thyroiditis. Definition of the concept. Etiology. Pathogenesis. Clinic, diagnosis. Differential diagnosis. Indications for medication and surgical treatment. Reed's thyroiditis. Definition of the concept. Clinic, diagnosis, differential diagnosis. Surgical treatment. Thyrotoxic goiter. Definition of the concept, pathogenesis. Classification by severity and stage of development. Clinic of diffuse thyrotoxic goiter and nodular forms, diagnosis, the value of determining T3, T4, TSH, test with thyreoliberin, absorption of diagnostic dose of iodine-131, scanning of the thyroid gland). Differential diagnosis. Indications for various types of treatment.

Protocol design: describe the results obtained. Make appropriate conclusions.

Practical session No. 33

Purpose: Indications and contraindications for surgery. Preoperative preparation in the depending on the stage of thyrotoxicosis. Methods of surgery (economical resection, subtotal resection, hemi-thyroidectomy, combined operations), indications for them. Complications during surgery and after surgery, the clinic of complications, their treatment and prevention. Prevention and treatment of thyrotoxic crisis and acute cardiovascular insufficiency after surgery in patients with thyrotoxicosis. Clinic, diagnostics, treatment. Tumors of the parathyroid glands. Thyroid cancer. Classification of histological and clinical. Clinic, diagnosis, differential diagnosis. Types of operations, indications for hemistrulectomy, extended thyroidectomy. Outcomes and long-term results. Prevention.

Protocol design: describe the results obtained. Make appropriate conclusions.

Recommended literature.

Main literature:

1. Fundamentals of Operative Surgery Electronic resource / O. B. Begishev [et al.]; ed. S. A. Simbirtsev. - Fundamentals of Operative Surgery, 2022-03-15. - Saint Petersburg: Foliant, 2015. - 728 p. - The book is in the premium version of IPR BOOKS. - ISBN 978-5-93929-256-6
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Additional literature:

1. Vasilyev, V. K. Workbook for laboratory and practical exercises and independent work in general and private surgery Electronic resource / Vasiliev V. K., Tsybikzhapov A.D. - 2nd ed., ster. - St. Petersburg: Lan Publ., 2020. -56 p. - ISBN 978-5-8114-5277-4
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4. Nekhaev, A. N. Practical Skills in General Surgery Electronic resource:Textbook / A. N. Nekhaev, G. P. Rychagov. - Practical Skills in General Surgery, 2020-02-24. - Minsk: Vysheyshaya Shkola, 2012. - 525 p. - The book is in the premium version of IPR BOOKS. - ISBN 978-985-06-2087-3
5. Operative Surgery with Topographic Anatomy Electronic resource / E. I.Veremey [et al.] ed.: E. I. Veremey, B. S. Semenov. - Operative Surgery with topographic anatomy, 2022-02-10. - Saint Petersburg: Kvadro, 2016. - 560 p. -The book is in the premium version of the IPR BOOKS electronic library. - ISBN 978-5-91258-233-2
6. Rychagov, G. P. Surgical Diseases. Part 1. General Surgery Electronic resource: Textbook / G. P. Rychagov, A. N. Nekhaev. - Surgical Diseases. Part 1.General Surgery, 2020-02-24. - Minsk: Vysheyskaya Shkola, 2012. - 428 p. - Book is in the premium version of IPR BOOKS EBS. - ISBN 978-985-06-1647-0
7. Rychagov, G. P. Surgical Diseases. Part 2. Private Surgery Electronic resource: Textbook / G. P. Rychagov, A. N. Nekhaev. - Surgical Diseases. Part 2.Private Surgery, 2020-02-24. - Minsk:

Vysheyshaya Shkola, 2012. - 479 p. - The book is available in the premium version of IPR BOOKS. - ISBN 978-985-06-2204-4

Internet resources:

1. <http://rudoctor.net> / - Medical portal
2. <http://www.pubmed.com> / - database of full-text articles on medicine
3. <http://www.spravocnikpolekarstvam.ru> / - free online pharmacological reference book
4. <https://www.rmj.ru> / - Russian Medical Journal