

The Ministry of Health of the Russian Federation

**Federal State Budgetary Educational Institution  
of Higher Education**  
**"North-Western State Medical University  
named after I.I. Mechnikov"**  
**under the Ministry of Health of the Russian Federation**

(FSBEI HE NWSMU named after I.I. Mechnikov under the Ministry of Health of the Russian Federation)

**WORK PROGRAM OF THE ACADEMIC COURSE**

"Gastroenterology in outpatient care"

**Major:** 31.05.01 General Medicine

**Focus:** Arrangement and delivery of primary health care to the adult population in medical organizations

Implementation language: English

2021\_



The work program of the academic course "Gastroenterology in outpatient care" is based on the Federal State Educational Standard of Higher Education for major 31.05.01 General Medicine, approved by the order of the Ministry of Science and Higher Education of the Russian Federation dated August 12, 2020 No. 988 "On approval of the federal state educational standard of higher education – in major 31.05.01 General Medicine"

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Approved by the Methodological Commission in major 31.05.01 General Medicine  
on May 11, 2021

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on May 20, 2021

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Updated:



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## **1. The purpose of mastering the academic course**

The purpose of mastering the course "Gastroenterology in outpatient care" is the development of indispensable student's competencies to work as a physician in the matter of the health care delivery.

## **2. The place of the academic course in the structure of the educational program**

The academic course "Gastroenterology in outpatient care" belongs to the part formed by participants in educational relations of Block 1 "Courses (modules)" of the basic professional educational program for major 31.05.01 General Medicine (educational level: specialist's degree), focus: arrangement and delivery of primary health care to the adult population in medical organizations. The academic course is elective.

## **3. The list of planned course outcomes correlated with program outcomes**

Code and name of competency	Code and name of competency achievement indicator
PC-2 Ability to conduct an examination of the patient in order to identify the main pathological conditions, symptoms, disease syndromes, and nosological forms	AI 1 PC-2.1. Student carries out a survey and examination of the patient (collection of complaints, the patient's medical history, examination, palpation, percussion, auscultation) AI 2 PC-2.2. Student states a preliminary diagnosis, draws up a plan and directs the patient for laboratory and/or imaging studies based on medical indications, in accordance with the current procedures, clinical guidelines and standards of health care AI 3 PC-2.3. Student refers the patient to medical specialists for consultation and/or for the specialized care in inpatient or outpatient facility, if there are medical grounds, in accordance with the current procedures, clinical guidelines and standards of health care AI 4 PC-2.4. Student performs differential diagnosis with other diseases/conditions AI 5 PC-2.5. Student determines a diagnosis based on clinical classifications and the current International Statistical Classification of Diseases and Related Health Problems (ICD)
PC-3 Ability to manage and treat patients in need of the health care delivery	AI 1 PC-3.1. Student develops a plan and prescribes non-medicinal and medicinal treatment of patients, taking into account the diagnosis, age and clinical aspect, in accordance with the current procedures, clinical guidelines and standards of primary health care AI 2 PC-3.2. Student evaluates the effectiveness and safety of the use of medications, medical devices and therapeutic nutrition and other treatment methods in primary health care AI 3 PC-3.3. Student provides palliative care in collaboration with medical specialists and specialized medical organizations and social services in primary health care

	AI 4 PC-3.4. Student provides personalized general therapeutic care to patients, including pregnant women, elderly and senile patients in primary health care
PC-4 Ability to implement necessary measures to perform various examination types	AI 1 PC-4.1. Student conducts a temporary disability examination AI 2 PC-4.2. Student determines the indications for referral to a sociomedical examination in primary health care
PC-5 Ability to determine the need for the use of natural therapeutic factors, medicinal, non-medicinal therapy and other methods in patients requiring medical rehabilitation and sanatorium treatment	AI 1 PC-5.1. Student identifies patients in need of medical rehabilitation and refers them to a medical specialist for the prescription and management of rehabilitation and/or sanatorium-resort treatment, including individual rehabilitation or rehabilitation program for the disabled, in accordance with current procedures, clinical guidelines (treatment protocols) and standards of health care

Competency achievement indicator code	Study outcomes (assessment criteria)	Assessment means
AI 1 PC-2.1.	<p>Student knows the methods for:</p> <ul style="list-style-type: none"> <li>- collecting complaints and the patient's medical history</li> <li>- performing a complete physical examination (examination, palpation, percussion, auscultation)</li> </ul> <p>Student is able to:</p> <ul style="list-style-type: none"> <li>- collect complaints, the patient's medical history and consider the information received</li> <li>- perform a complete physical examination (examination, palpation, percussion, auscultation) and interpret its results</li> </ul> <p>Student has the skill of:</p> <ul style="list-style-type: none"> <li>- collecting complaints, the patient's medical history, performing a complete physical examination (examination, palpation, percussion, auscultation)</li> </ul>	control questions, tests, case tasks, presentation of practical skills using simulation equipment
AI 2 PC-2.2.	<p>Student knows:</p> <ul style="list-style-type: none"> <li>- procedures, clinical guidelines (treatment protocols) and standards of health care</li> <li>- methods of laboratory and instrumental studies enabling to assess patient's health state, medical indications for conducting studies and rules of interpreting their results</li> </ul> <p>Student is able to:</p> <ul style="list-style-type: none"> <li>- state a preliminary diagnosis and develop an examination plan for the patient</li> <li>- substantiate the necessity and amount of laboratory studies</li> <li>- substantiate the necessity and amount of instrumental studies</li> <li>- consider the results of the patient examination</li> </ul>	control questions, tests, case tasks

	<ul style="list-style-type: none"> <li>- substantiate and plan the amount of additional studies as the need required</li> </ul>	
	<p>Student has the skill of:</p> <ul style="list-style-type: none"> <li>- stating a preliminary diagnosis and preparing a plan for laboratory and instrumental studies of the patient;</li> <li>- referring the patient for a laboratory studies in the presence of medical indications, in accordance with current procedures, clinical guidelines (treatment protocols) and standards of health care</li> <li>- referring the patient for an instrumental studies in the presence of medical indications, in accordance with current procedures, clinical guidelines (treatment protocols) and standards of health care</li> </ul>	
AI 3 PC-2.3.	<p>Student knows:</p> <ul style="list-style-type: none"> <li>- general issues of the health care delivery to the population</li> </ul> <p>Student is able to:</p> <ul style="list-style-type: none"> <li>- substantiate the need of referring the patient to medical specialists for consultations</li> </ul> <p>Student has the skill of:</p> <ul style="list-style-type: none"> <li>- referring the patient to medical specialists for consultation, if there are medical indications, in accordance with current procedures, clinical guidelines (treatment protocols) and standards of health care</li> <li>- referring the patient for specialized health care under conditions of inpatient or day patient facility, if there are medical indications, in accordance with current procedures, clinical guidelines (treatment protocols) and standards of health care</li> </ul>	control questions, tests, case tasks
AI 4 PC-2.4.	<p>Student knows:</p> <ul style="list-style-type: none"> <li>- patterns of healthy human body functioning and mechanisms of health support based on the theory of functional systems; features of functional systems control of the human body in pathological processes</li> <li>- etiology, pathogenesis and pathomorphology, clinical aspect, differential diagnosis, features of the course, complications and outcomes of internal organs diseases</li> </ul> <p>Student is able to:</p> <ul style="list-style-type: none"> <li>- perform differential diagnosis of gastroenterological diseases</li> </ul> <p>Student has the skill of:</p> <ul style="list-style-type: none"> <li>- performing differential diagnosis with other diseases/conditions, including emergencies</li> </ul>	control questions, tests, case tasks
AI 5 PC-2.5.	<p>Student knows:</p> <ul style="list-style-type: none"> <li>- ICD</li> </ul> <p>Student is able to:</p> <ul style="list-style-type: none"> <li>- diagnose, in accordance to clinical guidelines</li> </ul> <p>Student has the skill of:</p> <ul style="list-style-type: none"> <li>- stating diagnosis, in accordance with the current International Statistical Classification of Diseases and Related Health Problems (ICD)</li> </ul>	control questions, tests, case tasks

AI 1 PC-3.1.	<p>Student knows:</p> <ul style="list-style-type: none"> <li>- procedures of the health care delivery, clinical guidelines (treatment protocols) on the health care delivery, standards of health care</li> <li>- modern methods of using medicines, medical devices and therapeutic nutrition to deal with patients suffering diseases and conditions, in accordance with current procedures for the health care delivery, clinical guidelines (treatment protocols) on the health care delivery, standards of health care</li> <li>- modern methods of non-medicinal treatment of diseases and conditions, in accordance with the current procedures for the health care delivery, clinical guidelines (treatment protocols) on the health care delivery, standards of health care</li> </ul>	control questions, tests, case tasks
	<p>Student is able to:</p> <ul style="list-style-type: none"> <li>- draw up a treatment plan for patient's disease and condition with consideration to the diagnosis, the patient's age, and the clinical aspect, in accordance with current procedures, clinical guidelines (treatment protocols) and standards of health care</li> <li>- prescribe non-medicinal treatment in consideration of the diagnosis, age and clinical aspect of the disease, in accordance with current procedures, clinical guidelines (treatment protocols) and standards of health care</li> <li>- prescribe medicines, medical devices and therapeutic nutrition with consideration of the diagnosis, age and clinical aspect of the disease in accordance with current procedures for the health care delivery, clinical recommendations (treatment protocols) on the health care delivery, standards of health care</li> </ul>	
	<p>Student has the skill of:</p> <ul style="list-style-type: none"> <li>- developing a treatment plan for a disease or condition with consideration to the diagnosis, age and clinical aspect, in accordance with current procedures, clinical guidelines (treatment protocols) and standards of health care</li> <li>- prescribing medicines, medical devices and therapeutic nutrition in consideration to the diagnosis, age and clinical aspect of the disease, in accordance with current procedures, clinical guidelines (treatment protocols) and standards of health care</li> <li>- prescribing non-medicinal treatment with consideration to the diagnosis, age and clinical aspect of the disease, in accordance with current procedures, clinical guidelines (treatment protocols) and standards of health care</li> </ul>	
AI 2 PC-3.2.	<p>Student knows:</p> <ul style="list-style-type: none"> <li>- modern methods of using medicines, medical devices and therapeutic nutrition to deal with patients suffering diseases and conditions, in accordance with current procedures, clinical guidelines (treatment protocols)</li> </ul>	control questions, tests, case tasks

	<p>and standards of health care</p> <ul style="list-style-type: none"> <li>- the action mechanism of medicines, medical devices and therapeutic nutrition, medical indications and contraindications to their use; complications caused by their use</li> </ul> <p>Student is able to:</p> <ul style="list-style-type: none"> <li>- evaluate the effectiveness and safety of the use of medicines, medical devices and therapeutic nutrition</li> </ul>	
AI 3 PC-3.3.	<p>Student knows:</p> <ul style="list-style-type: none"> <li>- the procedure for palliative care</li> </ul> <p>Student is able to:</p> <ul style="list-style-type: none"> <li>- deliver palliative care in cooperation with medical specialists and other medical professionals</li> </ul>	control questions, tests, case tasks
AI 4 PC-3.4.	<p>Student knows:</p> <ul style="list-style-type: none"> <li>- the rules of personalized treatment of a gastroenterological patient, including pregnant women, elderly and senile patients, evaluation of the treatment effectiveness and safety</li> </ul>	control questions, tests, case tasks
AI 1 PC-4.1.	<p>Student knows:</p> <ul style="list-style-type: none"> <li>- legislation of the Russian Federation in the field of health care, regulatory legal acts and other documents defining the activities of medical organizations and medical workers</li> <li>- general issues of the health care management</li> <li>- rules for the reversible disability examination</li> </ul>	control questions, tests, case tasks
AI 2 PC-4.2.	<p>Student knows:</p> <ul style="list-style-type: none"> <li>- rules for the registration and issuance of medical documents when referring patients for specialized medical care, sanatorium treatment, and sociomedical examination</li> </ul>	control questions, tests, case tasks
AI 1 PC-5.1.	<p>Student knows:</p> <ul style="list-style-type: none"> <li>- medical indications and contraindications for the assignment of sanatorium treatment as a stage of the patient's medical rehabilitation</li> </ul>	control questions, tests, case tasks

#### 4. Scope of academic course and types of academic work

Type of academic work	Labor intensity	Semesters
		12
<b>Students and teacher cooperative work</b>	<b>48</b>	<b>48</b>
<b>Classroom work:</b>	<b>46</b>	<b>46</b>
Lectures (L)	12	12
Practical sessions (PS)	34	34
<b>Individual study:</b>	<b>24</b>	<b>24</b>
under the theoretical run	20	20
preparation for credit	4	4
<b>Interim assessment:</b> credit (taking the credit and group consultations included)	2	2
<b>Total labor intensity:</b>	academic hours credit units	
	<b>72</b>	
	<b>2</b>	

**5. The content of the academic course, structured with units (topics), including amount of academic hours and session types**

**5.1. The content of the academic course units**

Sl.No	Name of the academic course unit	Annotated content of the academic course unit	The list of competencies being developed in the process of mastering the unit
1.	Diseases of the esophagus and gaster	Introduction to the tactics of managing patients with esophageal and gastric diseases. Identification of the cardinal symptoms and syndromes of diseases. Mastering the outpatient examination and treatment patterns regarded to patients with these diseases. Differential diagnosis. Prevention, rehabilitation, and follow-up care.	PC-2; PC-3; PC-4; PC-5
2	Diseases of the liver and bile passages	Introduction to the tactics of managing patients with diseases of the liver and bile passages. Outpatient diagnosis and differential diagnosis of chronic liver and bile passages diseases. Identification of the main clinical laboratory and instrumental syndromes of liver and bile passages diseases. Implementation of the diagnostic and treatment patterns regarded to chronic diseases of the liver and bile passages in outpatient settings. Prevention, rehabilitation, and follow-up care.	PC-2; PC-3; PC-4; PC-5
3	Intestinal diseases	Introduction to the tactics of managing patients with intestinal diseases in the physician's practice. Differential diagnosis. Laboratory and instrumental study methods. Implementation of diagnostic and treatment patterns. Identification of the cardinal symptoms and syndromes of diseases. Mastering patterns of the outpatient examination and treatment of patients with intestinal diseases. Differential diagnosis. Prevention, rehabilitation, and follow-up care.	PC-2; PC-3; PC-4; PC-5

**5.2. Topical lecture plan**

Sl. No.	Name of the academic course unit	Topics of lectures	Active forms of study*	Labor intensity (academic hours)
1	Diseases of the esophagus and gaster	L-1 Acid-related diseases of the digestive system (gastroesophageal reflux disease, gastroduodenal ulcer, NSAID gastroenteropathy). Differential diagnosis.	LC, CL	2

		Outpatient management tactics. Cancer prevention in gastroenterology.		
2	Diseases of the liver and bile passages	L-2 Main clinical and laboratory syndromes in diseases of the liver and bile passages. Outpatient diagnosis and differential diagnosis of chronic liver diseases. Diagnostic and treatment patterns. L-3 Cirrhosis of the liver. Complications of liver cirrhosis: diagnosis and treatment. L-4 Hereditary (genetic) liver diseases.	LC, CL	6
3	Intestinal diseases	L-5 Inflammatory intestinal diseases. Features of clinical manifestations. Differential diagnosis. Laboratory and instrumental study methods. L-6 Functional intestinal diseases in outpatient care. Diagnostic and treatment patterns.	LC, CL	4
TOTAL:				12

\*LC – lecture-conversation

CL – case lecture (situation-centered)

### 5.3. The topical plan of practical sessions

Sl. No.	Name of the academic course unit	Topics of practical sessions	Active forms of study	Means of actual monitoring	Labor intensity (academic hours)
1	Diseases of the esophagus and gaster	PS.1 Diseases of the esophagus. Main issues: Diagnosis and differential diagnosis. Outpatient management tactics of patients with esophageal diseases. Follow-up care.	GD, RG, ASM, CS	control questions, tests, case studies, presentation of practical skills using simulation equipment	12
		PS.2 Acid-related diseases Main issues: Outpatient management tactics of patients with acid-related digestive diseases.			
		PS.3 Functional diseases of the gaster. The main issues: Outpatient management tactics of patients with functional diseases of the gaster. Diagnostic and treatment patterns. Prevention. Follow-up care.			
2	Diseases of the liver and bile passages	PS.4 Chronic liver diseases. Main issues: Outpatient diagnosis and differential diagnosis of chronic liver diseases. Diagnostic and treatment patterns. Follow-up care. Rehabilitation	GD, RG, ASM, CS	control questions, tests, case studies, presentation of practical skills using simulation equipment	12

		PS.5 Cirrhosis of the liver. Complications of liver cirrhosis: diagnosis and treatment. Main issues: Edematous-ascitic syndrome, outpatient management of patients. Differential diagnosis of edematous syndrome. Indications for hospitalization. Prevention. Follow-up care.			
		PS.6 Hereditary (genetic) liver disease. Main topics: Management tactics in outpatient care. Follow-up care.			
3	Intestinal diseases	PS.7 Management tactics of patients with intestinal diseases in outpatient care. Main issues: Differential diagnosis. Diagnostic and treatment patterns.	GD, RG, ASM, CS	control questions, tests, case studies, presentation of practical skills using simulation equipment	10
		PS.8 Inflammatory intestinal diseases in the physician's practice. Main issues: Differential diagnosis. Laboratory and instrumental study methods. Outpatient follow-up care.			
		PS.9 Management tactics of patients with intestinal diseases in outpatient care. The main issues: Differential diagnosis. Diagnostic and treatment patterns. Indications for sanatorium-resort therapy.			
TOTAL:					34

RG - role-playing game

GD - group discussion

CS - case study

ASM - analysis of simulation models

#### **5.4. The topical plan of seminars is not provided**

#### **5.5. The topical plan of laboratory classes is not provided**

#### **5.6. Independent work:**

Sl. No	Name of the academic course unit	Types of individual study	Means of actual monitoring	Labor intensity (academic hours)
1	Diseases of the esophagus and gaster	Working with lecture material L.1 Working with educational literature, see point 8.1.	Testing Control questions Case studies	4

		Educational literature, p. 1 of the textbook		
2	Diseases of the liver and bile passages	Preparation for actual classroom-based monitoring. Working with lecture material L.2-4 Working with educational literature, see point 8.1. Educational literature, p. 1 of the textbook.	Testing Control questions Case studies	10
3	Intestinal diseases	Preparation for actual classroom-based monitoring. Working with lecture material L 5, 6. Working with educational literature, see point 8.1. Educational literature, p. 1 of the textbook	Testing Control questions Case studies	6
Preparing for interim assessment (credit)				4
		TOTAL		24

## 6. Guidelines for students on mastering the academic course

For efficient mastery of the academic course "Gastroenterology in outpatient care", it is necessary to independently study the educational and methodological materials provided in the MOODLE system, thoroughly hone practical skills in practical sessions, and receive consulting assistance from a teacher in appropriate cases.

As a part of actual monitoring, it is necessary to familiarize yourself with the assessment materials for each session.

To pass interim assessment by testing successfully, it is necessary to study and work out all the assessment means: interview questions, case tasks.

## 7. Assessment materials

Assessment materials on the academic course for conducting actual academic performance monitoring and interim assessment include examples of assessment means (Appendix A to the academic course's work program), procedure and criteria.

## 8. The list of necessary educational literature and Internet resources to master the academic course

### 8.1. Educational literature:

1. Vnutrennie bolezni [Internal diseases]. In 2 volumes - 3rd ed., corr. and add. - 5. Edited by V.S. Moiseev and others.,  
Moscow: GEOTAR-Media, 2015. - Vol.1.-958 p.; Vol.2.-895 p.

- ELS "Student's Consultant" Vol. 1 -  
<http://www.studmedlib.ru/book/ISBN9785970433102.html>  
 Vol. 2 - <http://www.studmedlib.ru/book/ISBN9785970433119.html>
2. Gastroenterologiya. Natsional'noe rukovodstvo [Gastroenterology. National guidelines] [Electronic resource] /: Edited by V. T. Ivashkina, T. L. Lapina, M. GEOTAR-Media, 2018, 464 p. <http://www.rosmedlib.ru/book/ISBN9785970444061.html>
3. Ambulatornaya gastroenterologiya: rukovodstvo dlya vrachei [Outpatient gastroenterology: a guide for doctors] / I. G. Bakulin, I. A. Oganezova, N. V. Bakulina [et al.]; ed. by I. G. Bakulin, Moscow: UMI, 2020. 294 p. - Bibliogr. pp. 284-291 (71 titles).
4. Gastroenterology. Natsional'noe rukovodstvo [Gastroenterology. National guidelines] [Electronic resource] /: Edited by V. T. Ivashkina, T. L. Lapina, M. GEOTAR-Media, 2018, 464 p. [https://mbasegeotar.ru/book/ISBN9785970444061/call\\_reader.html](https://mbasegeotar.ru/book/ISBN9785970444061/call_reader.html)
- ?SSr=07E9011954AFB

## 8.2. Resources of the information and telecommunications network "Internet":

Names of the Internet resource	Web address
Journal of medical Internet research	<a href="http://www.jmir.org">http://www.jmir.org</a>
Information and educational system for medical practitioners	<a href="http://www.rosmedlib.ru">http://www.rosmedlib.ru</a>
Russian Medical Portal	<a href="http://www.rosmedportal.com">http://www.rosmedportal.com</a>
World Health Organization	<a href="http://www.who.int">http://www.who.int</a>

## 9. The list of information technologies used to master the academic course, including a list of software, professional databases and information reference systems

### 9.1. The list of information technologies used in the implementation of the educational process:

Sl.No.	Name of the academic course unit	Information technology
1	Diseases of the esophagus and gaster	Placement of educational materials in the EIE of the FSBEI HE NWSMU named after I.I. Mechnikov under the Ministry of Health of the Russian Federation, <a href="https://moodle.szgmu.ru/course/view.php?id=834">https://moodle.szgmu.ru/course/view.php?id=834</a> MOODLE forum discussion of issues and case tasks on the topics of the course being studied
2	Diseases of the liver and bile passages	Placement of educational materials in the EIE of the FSBEI HE NWSMU named after I.I. Mechnikov under the Ministry of Health of the Russian Federation, <a href="https://moodle.szgmu.ru/course/view.php?id=834">https://moodle.szgmu.ru/course/view.php?id=834</a> MOODLE forum discussion of issues and case tasks on the topics of the course being studied
3	Intestinal diseases	Placement of educational materials in the EIE of the FSBEI HE NWSMU named after I.I. Mechnikov under the Ministry of Health of the Russian Federation, <a href="https://moodle.szgmu.ru/course/view.php?id=834">https://moodle.szgmu.ru/course/view.php?id=834</a> MOODLE forum discussion of issues and case tasks

		on the topics of the course being studied
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**9.2. The list of software used in the educational process (*licensed and freely distributed software, including domestically produced*):**

Sl.No.	Name of the software product	License validity period	Documents supporting the right to use software products
<b>licensed software</b>			
1.	ESET NOD 32	1 year	Public contract № 07/2020
2.	MS Windows 8 MS Windows 8.1 MS Windows 10 MS Windows Server 2012 Datacenter - 2 Proc MS Windows Server 2012 R2 Datacenter - 2 Proc MS Windows Server 2016 Datacenter Core	Unlimited	Public contract № 30/2013-O; Public contract № 399/2013-OA; Public contract № 07/2017-ЭА.
3.	MS Office 2010 MS Office 2013	Unlimited	Public contract № 30/2013-OA; Public contract № 399/2013-OA.
4.	Academic LabVIEW Premium Suite (1 User)	Unlimited	Public contract № 02/2015
<b>licensed software of domestic production</b>			
1.	Antiplagiat	1 year	Public contract № 2409
2.	"WEBINAR (WEBINAR)" VERSION 3.0	1 year	Contract № 347/2020-M
3.	"3KL Learning management system"	1 year	Contract № 348/2020-M
4.	TrueConf Enterprise	1 year	Contract № 396/2020-ЭА
<b>freely distributed software</b>			
1.	Google Chrome	Unlimited	Open License Agreement GNU GeneralPublicLicense
2.	NVDA	Unlimited	Open License Agreement GNU GeneralPublicLicense
<b>freely distributed software of domestic production</b>			
1.	Moodle	Unlimited	Open License Agreement GNU GeneralPublicLicense

**9.3. List of professional databases and information reference systems:**

Sl.No	Name of the software product	License validity period	Documents supporting the right to use software products	Access mode for students with disabilities
1.	Konsul'tant Plyus	1 year	Contract	-

	[Consultant Plus]		№ 655/2020-ЭА	
2.	ELS "Student's Consultant"	1 year	Contract № 307/2020-ЭА	<a href="http://www.studmedlib.ru/">http://www.studmedlib.ru/</a>
3.	EML "Konsul'tant vracha" [Doctor's Consultant]	1 year	Contract № 281/2020-ЭА	<a href="http://www.rosmedlib.ru/">http://www.rosmedlib.ru/</a>
4.	ELS "ibooks.ru"	1 year	Contract № 06/2020	<a href="https://ibooks.ru">https://ibooks.ru</a>
5.	ELS "IPRbooks"	1 year	Contract № 08/2020-3K	<a href="http://www.iprbookshop.ru/special">http://www.iprbookshop.ru/special</a>
6.	Electronic Library System "BuckUP"	1 year	Contract № 05/2020	<a href="https://www.books-up.ru/">https://www.books-up.ru/</a>
7.	ELS "Izdatel'stvo Lan" [Fallow deer Publishing House]	1 year	Contract № 395/2020-ЭА	<a href="https://e.lanbook.com/">https://e.lanbook.com/</a>

## 10. Logistic support of the course

Classrooms with equipment and technical educational medium tools for conducting lectures:

St. Petersburg, Piskarevsky Prospekt 47.  
classroom 17, pavilion liter P

Educational and specialized furniture:

desks, benches, computer, projector, screen, blackboard  
classroom 19, pavilion liter O

Educational and specialized furniture:

desks, benches, computer, projector, screen, blackboard  
classroom 18, pavilion liter L

Educational and specialized furniture:

desks, benches, computer, projector, screen, blackboard  
classroom 15, pavilion liter R

Educational and specialized furniture:

desks, benches, computer, projector, screen, blackboard  
Technical educational medium: multimedia projector, teacher's laptop, system unit, monitor.

Special educational medium tools: Roger Pen (Individual Roger wireless pen-shaped transmitter), Roger MyLink (Roger Pen system signal receiver) (for students with hearing impairments); IntelliKeys (wired keyboard with matte black coating Russian Braille script), (St. Petersburg, Piskarevsky Prospekt, 47, lit. R (building 9), classroom 18, 19, FSBEI HE NWSMU named after I.I. Mechnikov under the Ministry of Health of the Russian Federation).

Classrooms with equipment and educational medium tools for conducting seminars, group and individual consultations, actual academic performance monitoring and interim assessment of students:

Technical educational medium: multimedia projector, teacher's laptop, system unit, monitor. Special educational medium tools: Roger Pen (Individual Roger wireless pen-shaped transmitter), Roger MyLink (Roger Pen system signal receiver) (for students with hearing impairments); IntelliKeys (wired keyboard with matte black coating Russian Braille script), (St. Petersburg, Piskarevsky Prospekt, 47, lit. R (building 9), classroom 18, 19, FSBEI HE NWSMU named after I.I. Mechnikov under the Ministry of Health of the Russian Federation).

Saint Petersburg, Piskarevsky Prospekt, 47, lit. Shch (III), pavilion 24,  
2nd floor

room 1

room 2

room 3

room 7

room 8

room 9

4th floor

room 4

room 5

3d floor

room 6

Equipment: Phonendoscopes, tonometers, a tape recorder with a set of discs for practicing the assessment of auscultative sounds, sets of ECG films, a centimeter tape

A mannequin for objective examination (auscultation of the heart and lungs) Accreditation and Simulation Center, St. Petersburg, Piskarevsky Prospekt, 47, pav. 26. FSBEI HE NWSMU named after I.I. Mechnikov under the Ministry of Health of the Russian Federation, Peter the Great Hospital, Address: St. Petersburg, Piskarevsky Prospekt, 47, lit. Shch (III), pav. 24, 4th floor, the Department of Gastroenterology; 3d floor, the Department of Therapy 2

Rooms for individual study of students, equipped with computer hardware connected to the Internet and provided with access to the electronic information and educational environment of the University: St. Petersburg, Piskarevsky Prospekt, 47, lit. AE (building 32),

classroom 1, lit. R (building 9), classroom 18, 19 FSBEI HE NWSMU named after I.I. Mechnikov under the Ministry of Health of the Russian Federation.

The Ministry of Health of the Russian Federation

**Federal State Budgetary Educational Institution  
of Higher Education  
"North-Western State Medical University  
named after I.I. Mechnikov"  
under the Ministry of Health of the Russian Federation**

(FSBEI HE NWSMU named after I.I. Mechnikov under the Ministry of Health of the Russian Federation)

**ASSESSMENT MATERIALS**

(for the actual monitoring of academic performance and interim assessment of students)

<b>Major:</b>	31.05.01 General Medicine
<b>Focus:</b>	Arrangement and delivery of primary health care to the adult population in medical organizations
<b>Name of the academic course:</b>	"Gastroenterology in outpatient care"

## 1. List of planned study outcomes of the academic course

Competency achievement indicator code	Study outcomes (assessment criteria)	Assessment means
AI 1 PC-2.1.	<p>Student knows:</p> <ul style="list-style-type: none"> <li>- methods of collecting complaints and patient's medical history</li> <li>- methods of a complete physical examination of the patient (examination, palpation, percussion, auscultation)</li> </ul>	control questions, tests, case tasks, presentation of practical skills using simulation equipment
	<p>Student is able to:</p> <ul style="list-style-type: none"> <li>- collect complaints, the patient's medical history and consider the information received</li> <li>- perform a complete physical examination of the patient (examination, palpation, percussion, auscultation) and interpret its results</li> </ul>	
	<p>Student has the skill of:</p> <ul style="list-style-type: none"> <li>- collecting complaints, the patient's medical history, performing a complete physical examination of the patient (examination, palpation, percussion, auscultation)</li> </ul>	
AI 2 PC-2.2.	<p>Student knows:</p> <ul style="list-style-type: none"> <li>- procedures, clinical guidelines (treatment protocols) and standards of health care</li> <li>- methods of laboratory and instrumental studies enabling to assess patient's health state, medical indications for conducting studies and rules of interpreting their results</li> </ul> <p>Student is able to:</p> <ul style="list-style-type: none"> <li>- state a preliminary diagnosis and develop an examination plan for the patient</li> <li>- substantiate the necessity and amount of laboratory studies of the patient</li> <li>- substantiate the necessity and amount of instrumental studies of the patient</li> <li>- consider the results of the patient examination</li> <li>- substantiate and plan the amount of additional studies as the need required</li> </ul> <p>Student has the skill of:</p> <ul style="list-style-type: none"> <li>- stating a preliminary diagnosis and preparing a plan for laboratory and instrumental studies of the patient;</li> <li>- referring the patient for a laboratory studies in the presence of medical indications in accordance with current procedures, clinical guidelines (treatment protocols) and standards of health care;</li> <li>- referring the patient for an instrumental studies in the presence of medical indications in accordance with current procedures, clinical guidelines (treatment protocols) and standards of health care</li> </ul>	control questions, tests, case tasks

AI 3 PC-2.3.	<p>Student knows:</p> <ul style="list-style-type: none"> <li>- general issues of the health care management</li> </ul> <p>Student is able to:</p> <ul style="list-style-type: none"> <li>- substantiate the need of referring the patient to medical specialists for consultations</li> </ul> <p>Student has the skill of:</p> <ul style="list-style-type: none"> <li>- referring the patient to medical specialists for consultation if there are medical indications in accordance with current procedures, clinical guidelines (treatment protocols) and standards of health care</li> <li>- referring the patient for specialized health care delivery under conditions of inpatient or day patient facility, if there are medical indications in accordance with current procedures, clinical guidelines (treatment protocols) and standards of health care</li> </ul>	control questions, tests, case tasks
AI 4 PC-2.4.	<p>Student knows:</p> <ul style="list-style-type: none"> <li>- patterns of healthy human body functioning and mechanisms of health support based on the theory of functional systems; features of functional systems control of the human body in pathological processes</li> <li>- etiology, pathogenesis and pathomorphology, clinical aspect, differential diagnosis, features of the course, complications and outcomes of internal organs diseases</li> </ul> <p>Student is able to:</p> <ul style="list-style-type: none"> <li>- perform differential diagnosis of gastroenterological diseases</li> </ul> <p>Student has the skill of:</p> <ul style="list-style-type: none"> <li>- performing differential diagnosis with other diseases/conditions, including emergencies</li> </ul>	control questions, tests, case tasks
AI 5 PC-2.5.	<p>Student knows:</p> <ul style="list-style-type: none"> <li>- ICD</li> </ul> <p>Student is able to:</p> <ul style="list-style-type: none"> <li>- diagnose in accordance with clinical guidelines</li> </ul> <p>Student has the skill of:</p> <ul style="list-style-type: none"> <li>- stating diagnosis in accordance with the current International Statistical Classification of Diseases and Related Health Problems (ICD)</li> </ul>	control questions, tests, case tasks
AI 1 PC-3.1.	<p>Student knows:</p> <ul style="list-style-type: none"> <li>- procedures of the health care delivery, clinical guidelines (treatment protocols) on the health care delivery, standards of health care</li> <li>- modern methods of using medicines, medical devices and therapeutic nutrition to deal with patients suffering diseases and conditions in accordance with current procedures for the health care delivery, clinical guidelines (treatment protocols) on the health care delivery, standards of health care</li> </ul>	control questions, tests, case tasks

	<ul style="list-style-type: none"> <li>- modern methods of non-medicinal treatment of diseases and conditions in accordance with the current procedures for the health care delivery, clinical guidelines (treatment protocols) on the health care delivery, standards of health care</li> </ul>	
	<p>Student is able to:</p> <ul style="list-style-type: none"> <li>- draw up a treatment plan for disease and condition with consideration of the diagnosis, the patient's age, and the clinical aspect in accordance with current procedures, clinical guidelines (treatment protocols) and standards of health care</li> <li>- prescribe non-medicinal treatment in consideration of the diagnosis, age and clinical aspect of the disease in accordance with current procedures, clinical guidelines (treatment protocols) and standards of health care</li> <li>- to prescribe medicines, medical devices and therapeutic nutrition with consideration of the patient's age, and the clinical aspect in accordance with current procedures, clinical guidelines (treatment protocols) and standards of health care</li> </ul>	
	<p>Student has the skill of:</p> <ul style="list-style-type: none"> <li>- developing a treatment plan for disease or condition with consideration of the diagnosis, age and clinical aspect in accordance with current procedures, clinical guidelines (treatment protocols) and standards of health care</li> <li>- prescribing medicines, medical devices and therapeutic nutrition in consideration of the diagnosis, age and clinical aspect of the disease in accordance with current procedures, clinical guidelines (treatment protocols) and standards of health care</li> <li>- prescribing non-medicinal treatment with consideration of the diagnosis, age and clinical aspect of the disease in accordance with current procedures, clinical guidelines (treatment protocols) and standards of health care</li> </ul>	
AI 2 PC-3.2.	<p>Student knows:</p> <ul style="list-style-type: none"> <li>- modern methods of using medicines, medical devices and therapeutic nutrition to deal with patients suffering diseases and conditions in accordance with current procedures, clinical guidelines (treatment protocols) and standards of health care</li> <li>- the action mechanism of medicines, medical devices and therapeutic nutrition, medical indications and contraindications to their use; complications caused by their use</li> </ul> <p>Student is able to:</p> <ul style="list-style-type: none"> <li>- evaluate the effectiveness and safety of the use of medicines, medical devices and therapeutic</li> </ul>	control questions, tests, case tasks

	nutrition	
AI 3 PC-3.3.	<p>Student knows:</p> <ul style="list-style-type: none"> <li>- the procedure for palliative care</li> </ul> <p>Student is able to:</p> <ul style="list-style-type: none"> <li>- deliver palliative care in cooperation with medical specialists and other medical professionals</li> </ul>	control questions, tests, case tasks
AI 4 PC-3.4.	Student knows the rules of personalized treatment of a gastroenterological patient, including pregnant women, elderly and senile patients, evaluation of the treatment effectiveness and safety	control questions, tests, case tasks
AI 1 PC-4.1.	<p>Student knows:</p> <ul style="list-style-type: none"> <li>- legislation of the Russian Federation in the field of health care, regulatory legal acts and other documents defining the activities of medical organizations and medical workers</li> <li>- general issues of the health care management</li> <li>- rules for the reversible disability examination</li> </ul>	control questions, tests, case tasks
AI 2 PC-4.2.	Student knows: <ul style="list-style-type: none"> <li>- rules for the registration and issuance of medical documents when referring patients for specialized medical care, sanatorium treatment, and sociomedical examination</li> </ul>	control questions, tests, case tasks
AI 1 PC-5.1.	<p>Student knows:</p> <ul style="list-style-type: none"> <li>- medical indications and contraindications for the assignment of sanatorium treatment as a stage of the patient's medical rehabilitation</li> </ul>	control questions, tests, case tasks

## 2. Examples of assessment means and criteria of actual monitoring

### 2.1. Examples of input control

1. Deep palpation of the abdomen. Diagnostic value in the digestive system diseases.  
Palpation of the liver and spleen. Diagnostic value.
2. Differential diagnosis of edematous syndrome (cardiac insufficiency, nephrotic syndrome, blood and liver diseases, oncopathology).
3. Portal hypertension syndrome. Clinical manifestations. Approaches to outpatient diagnosis.
4. Complications of gastroduodenal ulcer. Bleeding and its classification according to Forrest. Ulcer burst. Ulcer penetration. Pyloric stenosis. Clinical aspect. Diagnosis and differential diagnosis. Indications for surgical treatment.

Assessment criteria, assessment scale passed/not passed

Grade	Description
"passed"	Student performs a complete understanding of the problem. All requirements for the task have been met.
"not passed"	Student performs a lack of understanding of the problem. Many of requirements for the task have not been met. Answer is not provided.

### 2.2. Examples of tests:

#### AI 1 PC-2.1.

Question title: Question № 1

On examination: the patient was found to have an enlarged, tad sagging abdomen, and under percussion: a dulling of the percussion sound in the lower parts.

This corresponds to:

1. ascites
2. obesity
3. flatulence
4. tumor in the abdominal cavity

#### AI 2 PC-2.2.

##### Question title: Question № 2

"Early" pains in gastric diseases occur:

1. in 20-30 minutes after having a meal
2. while having a meal
3. in hour after having a meal
4. in 2-3 hours after having a meal

#### AI 3 PC-2.3.

##### Question title: Question № 3

The medications of choice for the treatment of erosive GERD are:

1. proton-pump inhibitors
2. H2-histamine antagonists
3. prokinetic agents
4. alginates

#### AI 4 PC-2.4.

##### Question title: Question № 4

The recommended duration of glucocorticosteroid therapy for IBD is:

1. 12 weeks
2. 8 weeks
3. 24 weeks
4. till reaching remission

#### AI 5 PC-2.5.

##### Question title: Question № 5

A patient with grade 3 malabsorption syndrome is indicated:

1. parenteral protein nutrition
2. hemotransfusion
3. intravenous administration of saline solutions
4. antienzyme agents

#### AI 1 PC-3.1.

##### Question title: Question № 6

The minimum duration of antisecretory therapy for erosive esophagitis is:

1. 8 weeks
2. 6 weeks
3. 4 weeks
4. 12 weeks

#### AI 2 PC-3.2.

##### Question title: Question № 7

Laxatives that have a stimulating effect on the neuromuscular apparatus of the colon and enhance its peristalsis include:

1. Bisacodyl
2. Lactulose
3. Macrogol
4. Psyllium

#### AI 3 PC-3.3.

##### Question title: Question № 8

Sociomedical examination is conducted:

1. **based on an assessment of disability**
2. in order to establish a cause-effect relationship between the disease and professional activity
3. according to the results of preliminary medical examinations
4. in order to identify violations in the health care delivery

#### **AI 4 PC-3.4.**

#### **Question title: Question № 9**

Outpatient medical care in the field of "gastroenterology" is:

1. **specialized**
2. primary health care
3. palliative care
4. high-tech

#### **AI 1 PC-4.1.**

#### **Question title: Question № 10**

Among the following methods, you can use for the primary diagnosis of helicobacter pylori infection only:

1. **serological diagnosis of HP antibodies in blood serum**
2. detection of HP antigens in stool
3. 13C-urea breath test
4. histological study of biopsy material

#### **AI 2 PC-4.2.**

#### **Question title: Question № 11**

The "gold standard" for verifying the diagnosis of functional heartburn is:

1. **daily pH-impedancemetry**
2. ultrasound of the abdominal cavity
3. esophageal manometry
4. biochemical blood assay

#### **AI 1 PC-5.1.**

#### **Question title: Question № 12**

The presence of food eaten recently in the vomit is typical for:

1. **pyloric stenosis**
2. acute gastritis
3. type I gastric ulcer
4. duodenal bulb ulcer

Assessment criteria, assessment scale for tests

<b>Grade</b>	<b>Description</b>	
"passed with distinction"	5	Completed in full – 90%-100%
"passed with credit"	4	Completed not in full – 80%-89%
"passed"	3	Completed with contravention – 70%-79%
"failed"	2	Partially completed – 69% or less correct answers

### **2.3. Examples of patterns for practical skills performance**

- AI 1 PC-2.1.
- AI 2 PC-2.2.
- AI 4 PC-2.4.
- AI 1 PC-5.1.

Patterns for practical skills performance

Superficial abdominal palpation. Assessment of the received data

Sl.No.	Student's action
1	Establishing contact with the patient (student greeted, introduced themselves, offered to

Sl.No.	Student's action
	sit down)
➤	Greeting
➤	Introducing yourself
➤	Offering to sit down
2	Clarifying the patient's last name, first name, patronymic, age
3	Clarifying the patient's health state
4	Informing the patient about the upcoming manipulation
	Performing a superficial palpation of the abdomen
5	Palpating the left iliac region
➤	The fingers are pointed left and up in comparison to the patient
➤	Flexing the fingers smoothly at the proximal interphalangeal joints
➤	Dipping fingers to a depth of no more than 1 cm
➤	Assessing soreness, muscle tension, significant organ enlargement, large formations
6	Palpating the right iliac region
➤	The fingers are pointed left and up in comparison to the patient
➤	Flexing the fingers smoothly at the proximal interphalangeal joints
➤	Dipping fingers to a depth of no more than 1 cm
➤	Assessing soreness, muscle tension, significant organ enlargement, large formations
7	Palpating the left flank of the abdomen
➤	The fingers are pointed left and up in comparison to the patient
➤	Flexing the fingers smoothly at the proximal interphalangeal joints
➤	Dipping fingers to a depth of no more than 1 cm
➤	Assessing soreness, muscle tension, significant organ enlargement, large formations
8	Palpating the right flank of the abdomen
➤	The fingers are pointed left and up in comparison to the patient
➤	Flexing the fingers smoothly at the proximal interphalangeal joints
➤	Dipping fingers to a depth of no more than 1 cm
➤	Assessing soreness, muscle tension, significant organ enlargement, large formations
9	Palpating the left hypochondrium
➤	The fingers are pointed left and up in comparison to the patient
➤	Flexing the fingers smoothly at the proximal interphalangeal joints
➤	Dipping fingers to a depth of no more than 1 cm
➤	Assessing soreness, muscle tension, significant organ enlargement, large formations
10	Palpating the right hypochondrium
➤	The fingers are pointed left and up in comparison to the patient
➤	Flexing the fingers smoothly at the proximal interphalangeal joints
➤	Dipping fingers to a depth of no more than 1 cm
➤	Assessing soreness, muscle tension, significant organ enlargement, large formations
11	Palpating the epigastric region
➤	The fingers are pointed towards the xiphoid process
➤	Flexing the fingers smoothly at the proximal interphalangeal joints
➤	Dipping fingers to a depth of no more than 1 cm
➤	Assessing soreness, muscle tension, significant organ enlargement, large formations
12	Palpating the umbilical region
➤	The fingers are pointed towards the xiphoid process
➤	Flexing the fingers smoothly at the proximal interphalangeal joints
➤	Dipping fingers to a depth of no more than 1 cm.
➤	Assessing soreness, muscle tension, significant organ enlargement, large formations
13	Palpating the suprapubic region

Sl.No.	Student's action
➤	The fingers are pointed towards the xiphoid process
➤	Flexing the fingers smoothly at the proximal interphalangeal joints
➤	Dipping fingers to a depth of no more than 1 cm.
➤	Assessing soreness, muscle tension, significant organ enlargement, large formations

Assessment sheet (for the teacher) Examination and palpation of the heart area. Assessment of the received data

Sl.No.	Student's action	Assessment criteria		
		Student performed right 2 points	Student made a mistake, but corrected it themselves	Student performed wrong
1.	Student established contact with the patient (greeted, introduced themselves)			
2.	Student identified the patient (asked the patient to introduce themselves, say last name, first name, patronymic, age)			
3.	Student inquired about the patient's health state, using his first name and patronymic.			
4.	Student informed the patient about the upcoming manipulation			
	Student performed a superficial palpation of the abdomen			
5.	Palpation of the left iliac region			
6.	Palpation of the right iliac region			
7.	Palpation of the left flank of the abdomen			
8.	Palpation of the right flank of the abdomen			
9.	Palpation of the left hypochondrium			
10.	Palpation of the right hypochondrium			
11.	Palpation of the epigastric region			
12.	Palpation of the umbilical region			
13.	Palpation of the suprapubic region			
14.	Student assessed soreness, muscle tension, significant organ enlargement, and large formations			
15.	Student assessed the data correctly and used the correct wording in the report			
16.	Student followed the sequence of actions			
1.				

Assessment criteria, assessment scale for practical skill performance

Grade	Description	
"passed with distinction"	5	Student knows the methodology of performing practical skills, indications and contraindications, possible complications, standards, etc., performs the implementation of practical skills without mistakes

<b>Grade</b>	<b>Description</b>
"passed with credit"	4 Student knows the methodology of performing practical skills, indications and contraindications, possible complications, standards, etc., independently performs the implementation of practical skills, committing some inaccuracies (unessential mistakes), which student independently detects and quickly corrects
"passed"	3 Student knows the basic patterns of the methodology for performing practical skills, indications and contraindications, possible complications, standards, etc., performs the implementation of practical skills, committing some mistakes that student manages to correct with teacher's participation
"failed"	2 Student does not know the methods of performing practical skills, indications and contraindications, possible complications, standards, etc., cannot independently perform practical skills or performs them, committing gross mistakes

## 2.4. Examples of case tasks

### AI 1 PC-2.1.

#### **The main part**

Patient M., 49 years old, complains of aching pains in the epigastric region (more on the left) in 20 minutes after eating, acid regurgitation and heartburn resolving after taking "almagel".

A year ago, there were similar complaints after errors in the diet; the patient took "maalox" and "famotidine" on his own.

From the life medical history: smoking, often alcohol intake, irregular dry diet.

Objectively: Condition is satisfactory, normosthenic. The tongue is overlaid at the root. The abdomen is soft, painful in the epigastric region on the left. Mendel's sign is positive. Other organs are not involved.

#### **Questions:**

1. Identify the leading syndrome.
2. State a preliminary diagnosis.
3. Develop an examination plan.
4. What laboratory and instrumental studies are needed to determine a definitive diagnosis?
5. List preventive measures to control the development and progression of this pathology.

### AI 2 PC-2.2.

#### **The main part**

Patient N., 43 years old, complains of an increase in abdominal volume, swelling of the legs, bloating, heaviness in the right hypochondrium after eating, nausea, unstable stools, tendency to nosebleeds, weakness.

He has a history of heaviness in the right hypochondrium, bloating, unstable stools, and bitterness in his mouth for more than 7 years. During the last 3 months, the abdomen began to enlarge, and swelling appeared in the shins and feet.

From his life medical history: HBsAg+ was detected at the age of 30.

Objectively: Condition is of moderate severity. The skin is pale, dry, telangiectasia in the upper half of the body, palmar erythema.

The tongue is moist, swollen, and crimson in color. The abdomen is enlarged due to ascites; moderate soreness is in the right hypochondrium. The spleen is not palpable. Ragosa's sign is positive. Swelling of the legs and feet.

#### **Questions:**

1. Identify the leading syndrome.
2. State a preliminary diagnosis.
3. Develop an examination plan.
4. Develop a treatment plan.
5. List preventive measures to control the development and progression of this pathology.

#### **AI 3 PC-2.3.**

##### **The main part**

A 62-year-old patient had weakness, transient nausea, and thirst for 2 days. Then the weakness suddenly intensified. Tinnitus, heart pounding, and dizziness appeared, and he lost consciousness twice before the ambulance crew arrived. He has been suffering from gastric ulcer for 30 years.

The ambulance doctor confirmed the pallor of the patient's skin, a frequent weak pulse, a decrease in blood pressure to 80/50 mm Hg, and bloating. In the presence of a doctor, the patient had vomiting; vomiting matters had the color of "coffee grounds".

##### **Questions:**

1. Identify the leading syndrome.
2. State a preliminary diagnosis.
3. Develop an examination plan.
4. Identify a therapeutic tactics.
5. Identify preventive measures.

#### **AI 4 PC-2.4.**

##### **The main part**

A 38-year-old patient, a surgeon by occupation, turned to a local physician complaining of general weakness, sweating, a sharp decrease in performance, lack of appetite, constant nausea, and pain in large joints at night. He considers himself ill during the last 10 days, since the above complaints arose. He has not visited a doctor. 4 days before going to the clinic, he noticed darkening of the urine, as well as yellowing of the skin, sclera and visible mucous membranes, followed by a slight skin itch. He contacted the local outpatient clinic due to appearance of the above complaints.

Objectively: Condition is of moderate severity, consciousness is clear. Body temperature is 36.3 C. Moderate jaundice of the skin, sclera and visible mucous membranes with isolated scratches on the anterior surface of the abdominal wall. The joint area is not changed. Blood pressure is 120/70 mm Hg. Pulse is 80 beats per 1 minute, rhythmic. Examination of the organ systems revealed no pathology from the cardiovascular and respiratory systems. The tongue is dry, covered with plaque at the edge. The abdomen is soft, painful in the right hypochondrium, and painless in the rest of the body. The liver protrudes 3 cm from under the costal arch, has a soft elastic consistency, with a pointed, smooth edge, and the spleen is not palpable. Urine is the color of beer, stool is acholic.

##### **Questions:**

1. Identify the leading syndrome.
2. State a preliminary diagnosis.
3. Determine the diagnostic tactics of patient management.
4. What laboratory and instrumental studies should be carried out?
5. List preventive measures to control the development and progression of this pathology.

#### **AI 5 PC-2.5.**

##### **The main part**

Patient S., 35 years old, driver by occupation, went to a local physician complaining of general weakness, decreased performance, heaviness and discomfort in the right hypochondrium; over the past 6 months, he has occasionally noted darkening of urine. He had a medical history of acute viral hepatitis B about three years ago. After discharge from the hospital, he was not registered with the follow-up care, did not go to the outpatient hospital or to the infectious disease specialist. About six months ago, the above-mentioned complaints

appeared. He went to the outpatient hospital to see a local physician for examination due to the deterioration of his health over the past 6 months.

Objectively: Condition is satisfactory, consciousness is clear. Body temperature is 36.7 °C. Subicteritiousness of the skin and sclera is observed on examination. Blood pressure is 120/80 mm Hg. Pulse is 70 beats per 1 minute, rhythmic. Examination of the organ systems revealed no pathology from the cardiovascular and respiratory systems. The tongue is dry, covered with plaque at the edge. The abdomen is soft, sensitive in the right hypochondrium, and painless in the rest of the body. The liver, of a dense consistency, protrudes from under the costal arch by 3 cm. The lower pole of the spleen is palpated. No peripheral edema.

**Questions:**

1. Identify the leading syndrome.
2. State a preliminary diagnosis.
3. Examination plan.
4. Develop a treatment plan.
5. List preventive measures to control the development and progression of this pathology.

**AI 1 PC-3.1.**

Patient A., 21 years old, was examined for viral hepatitis markers at a local outpatient hospital due to previous contact with a HCV infected person. The screening serological examination revealed positive HBsAg, total antiHBcor and antiHCV. He has a history of parenteral drug use for 2 years. He is currently not working or studying. For the last 8-9 months, he has been occasionally worried about general weakness, decreased appetite, and heaviness in the right hypochondrium.

Objectively: Condition is satisfactory, consciousness is clear. Body temperature is 36.6 °C. The skin and sclera icteritiousness was found on examination. BP is 115/75 mm Hg. Pulse is 73 beats per 1 minute, rhythmic. Examination of the organ systems revealed no pathology from the cardiovascular and respiratory systems. The tongue is dry, covered with plaque at the edge. The abdomen is soft and painless in all parts. The liver, of a dense consistency, protrudes from under the costal arch by 3 cm. The spleen is not palpable. Ragosa's sign is negative. No peripheral edema.

**Questions:**

1. Identify the leading syndrome.
2. State a preliminary diagnosis.
3. Determine the therapeutic tactics of patient managing.
4. Develop a treatment plan.
5. List preventive measures to control the development and progression of this pathology.

**AI 2 PC-3.2.**

**The main part**

A 28-year-old patient went to a doctor complaining of general weakness, episodic pain in the right hypochondrium. He has a medical history of childhood jaundice, and has not seen a doctor for a long time.

Objectively: the skin is of ordinary color, the liver protrudes from under the edge of the costal arch by 3 cm, its edge has a soft elastic consistency. Ragosa's sign is negative. There is no swelling. The results of laboratory and instrumental study: cytosis syndrome (Alt 110 U/l, Ast 88 U/l), ultrasound – hepatomegaly, diffuse changes in liver tissue. Markers of hepatitis B were detected by serological methods: HBsAg, HBeAg.

**Questions:**

1. Identify the leading syndrome.
2. State a diagnosis.
3. Determine the diagnostic and therapeutic tactics of patient management.
4. What laboratory and instrumental studies should be performed to confirm the diagnosis?
5. List preventive measures to control the development and progression of this pathology.

**AI 3 PC-3.3.**

### **The main part**

A 45-year-old patient with cirrhosis of the liver as the outcome of chronic viral hepatitis C got sharp deterioration in the general health state: the appearance of significant general weakness, dizziness, precollaptoid state, black stools. Varicose veins of the esophagus were revealed during his stay in the hospital, according to EGD.

Objectively: Condition is of moderate severity. The skin and visible mucous membranes are pale, moist, palmar erythema. Pulse is 120 per minute, rhythmic, weak strength; blood pressure is 90 and 65 mm Hg. Ascites. Clinical blood test: hemoglobin level decreased from 120 g/l to 90 g/l. There is no significant dynamics in the biochemical blood assay.

#### **Questions:**

1. State a preliminary diagnosis.
2. What complication development can be supposed?
3. List the urgent measures for the development of such conditions.
4. List preventive measures to control the development and possible recurrence of this condition.
5. List preventive measures to control recurrence of this condition.

#### **AI 4 PC-3.4.**

### **The main part**

Patient M., 72 years old, is being monitored for a long time by a physician in relation to hypertension and atherogenic dyslipidemia, and by an endocrinologist due to obesity (BMI=34 kg/m<sup>2</sup>) and type 2 diabetes mellitus. She constantly takes ACE inhibitors (enalapril), amaryl, and keeps a hypoglycemic diet. She denies having bad habits. Biochemical blood assay revealed an increase in ALT and AST in 1.5 times, in gamma-glutamyltranspeptidase in 1.2 times. Viral markers are negative. According to ultrasound of the abdominal organs – there is hepatomegaly; steatosis-type diffuse changes of the liver structure.

#### **Questions:**

1. Identify the leading syndrome.
2. State a preliminary diagnosis.
3. What diagnostic method should be performed for the final verification of the diagnosis?
4. Therapeutic tactics.
5. List preventive measures to control the progression of this pathology.

#### **AI 1 PC-4.1.**

### **The main part**

A 65-year-old patient complains of general weakness, intense itching of the skin, and an increase in abdominal volume. According to her medical history, the above-mentioned complaints have been bothering for 2 years. Outpatient examination revealed an acceleration of ESR to 30 mm/hour in a clinical blood test and an increase in GGTP activity of 680 U/L, ALP 500 U/L, and hypoalbuminemia in a biochemical blood assay. Ultrasound of the abdominal organs revealed hepatosplenomegaly, diffuse changes of liver tissue, ascites. Serological markers of viral hepatitis B and C are negative. A high titer of antimitochondrial antibodies was detected.

#### **Questions:**

1. Identify the leading syndrome.
2. What additional laboratory and instrumental examination methods should be performed for the final verification of the diagnosis?
3. State a preliminary diagnosis.
4. Determine the patient therapeutic management tactics.
5. Identify preventive measures.

#### **AI 2 PC-4.2.**

### **The main part**

Patient R., 45 years old, went to a doctor complaining of a feeling of heaviness, overflow in the epigastrium, which occurs in 40-50 minutes after eating, and nausea.

She has been suffering from chronic gastritis for 20 years, with exacerbations 1-2 times a year. During exacerbations, she usually takes proton pump inhibitors and antacids. She has not received eradication therapy. The current 2 weeks deterioration is affected by errors in the diet. She took "almagel" on her own when she had unpleasant sensations.

On examination: Condition is satisfactory. Height is 166 cm, weight is 64 kg. The skin is clean and has a normal color. Respiration is vesicular without rale. The heart tones are clear and rhythmic. Heart rate is 70 beats per minute, blood pressure is 120/70 mm Hg. The abdomen is soft, painful in the epigastrium and pyloroduodenal areas. The Kehr's and Murphy's signs are negative. Ortner's syndrome is negative. The liver is not enlarged. CVAT of the lumbar region is negative. Stool - one time a day, formed, without pathological impurities.

On fibrogastroscopy: the esophagus is freely passable, its mucosa is not changed. The cardia closes completely. The gastric mucosa is hyperemic, with areas of atrophy in the antrum, the folds are smoothed, and straightens well with air. The pylorus is passable through. The mucosa membrane of the duodenal bulb and the post-bulbar portion are not changed. A biopsy sample was taken from the antrum of the gaster: rapid urease test is positive. The result of the histological examination of the biopsy: gastric mucosa with atrophy and chronic polymorphocellular infiltration.

**Questions:**

1. Suggest and justify the most likely diagnosis.
2. Make a plan for additional examination of the patient.
3. Prescribe medication and justify your choice.
4. Assess the patient's ability to work.
5. Develop a plan for the patient follow-up care.

**AI 1 PC-5.1.**

**The main part**

A 21-year-old student went to the clinic complaining of periodic diarrhea, pain and bloating over the past 6 months, and indeterminate weight loss (about 5 kg).

She noticed diarrhea becoming less acute if she stops eating bread. She is also concerned about an itchy rash on the extensor surfaces of the elbows, spontaneously forming small hemorrhages in the skin.

She notes that she has been feeling general weakness and sickliness for the last month. On examination, body temperature is 36.8 °C, heart rate is 80 beats per minute, blood pressure is 115/75 mm Hg, RR is 16 per minute, and O2 saturation is 99%.

From the medical history: she suffers from type I diabetes mellitus. Iron deficiency anemia of moderate severity is revealed

**Questions:**

1. What are the etiology and pathogenesis of this disease?
2. What stool changes are differential in this disease?
3. State and describe the complication (syndrome) developing during the prolonged uncontrolled course of this disease?
4. What examinations should be performed to confirm the diagnosis?
5. What are the basic patterns of treating this disease?

Assessment criteria, assessment scale for case tasks

<b>Grade</b>	<b>Description</b>	
"passed with distinction"	5	Case solving is detailed, consistent, competent, with theoretical justifications, with necessary schematic images and visual presentations, with correct and fluent command of terminology; the answers to additional

		questions are correct, clear
"passed with credit"	4	Case solving is detailed, but not logical enough, with isolated particular errors, some difficulties in theoretical justification, schematic images and visual presentations, the answers to additional questions are correct, but not clear enough
"passed"	3	Case solving is not complete enough, inconsistent, with errors, weak theoretical justification, with significant difficulties and errors in schematic representations and visual presentations, the answers to additional questions are not clear enough, with errors in details
"failed"	2	Case solving is incomplete, inconsistent, with gross errors, without theoretical justification, without schematic images and visual presentations, or with a large number of errors, the answers to additional questions are incorrect or missing

## 2.5. Examples of control questions

### AI 1 PC-2.1.

Primary biliary cholangitis. Classification, etiology and pathogenesis, clinical aspect, diagnosis and differential diagnosis (overlapping syndromes, extrahepatic manifestations), treatment (background therapy, pruritus therapy, treatment of complications, assessment of response to therapy), disability assessment, rehabilitation, follow-up care, prevention.

### AI 2 PC-2.2.

Microscopic colitis (lymphocytic and collagenous). Etiology and pathogenesis, clinical aspect, diagnosis and differential diagnosis, complications, treatment (medicinal, non-medicinal), disability assessment, rehabilitation, follow-up care, prevention.

### AI 3 PC-2.3.

Non-alcoholic fatty liver disease (NAFLD). Definition, prevalence, pathogenesis, clinical aspect, diagnosis and differential diagnosis, risk factors of progression and associated conditions in NAFLD. Therapeutic tactics. Prevention.

### AI 4 PC-2.4.

The main hepatological syndromes. Jaundice, differential diagnosis of jaundice. Cholestasis. Portal hypertension. Ascites. Hepatic failure. Diagnostic issues.

### AI 5 PC-2.5.

Symptomatic ulcers of the gaster and duodenum. Classification, etiology and pathogenesis, clinical aspect, diagnosis and differential diagnosis, complications, treatment (medicinal, non-medicinal), disability assessment, rehabilitation, follow-up care, prevention.

### AI 1 PC-3.1.

Cholelithiasis. Classification, etiology and pathogenesis, clinical aspect, diagnosis and differential diagnosis, complications, treatment (medicinal, non-medicinal, comprehension of surgical treatment methods), disability assessment, rehabilitation, follow-up care, prevention.

### AI 2 PC-3.2.

Complications of cirrhosis of the liver: portal hypertension – varicose veins of the esophagus, ascites, liver cell failure, infectious complications, hyponatremia, hypersplenism. Classification issues, clinical manifestations, complications treatment of liver cirrhosis.

**AI 3 PC-3.3.**

Ulcerative colitis. Classification, etiology and pathogenesis, clinical aspect, diagnosis and differential diagnosis, complications, treatment (medical, non-medical, comprehension of surgical treatment methods), disability assessment, rehabilitation, follow-up care, prevention.

**AI 4 PC-3.4.**

Diverticular disease of the colon. Classification, etiology and pathogenesis, clinical aspect, diagnosis and differential diagnosis, complications, treatment (medicinal, non-medical, comprehension of surgical treatment methods), disability assessment, rehabilitation, follow-up care, prevention. Diverticular disease as an age-related disease

**AI 1 PC-4.1.**

Gastrointestinal lesions induced by NSAIDs. Classification, etiology and pathogenesis, clinical aspect, diagnosis and differential diagnosis, complications, treatment, disability assessment, rehabilitation, follow-up care, prevention.

**AI 2 PC-4.2.**

The spectrum of *H.pylori*-associated diseases. Epidemiology. Methods of primary diagnosis and evaluation of the effectiveness of *H.Pylori* infection eradication. Indications for eradication therapy, modern treatment regimens for helicobacteriosis.

**AI 1 PC-5.1.**

Crohn's disease. Classification, etiology and pathogenesis, clinical aspect, diagnosis and differential diagnosis, complications, treatment (medicinal, non-medical, comprehension of surgical treatment methods), disability assessment, rehabilitation, follow-up care, prevention.

## Assessment criteria Assessment scale for control questions

Grade	Description	
"passed with distinction"	5	Student knows all the educational material, understands it perfectly and has firmly mastered it. Student gives correct, conscious and confident answers to questions (within the program). Student uses correct standard language and does not make mistakes in verbal answers
"passed with credit"	4	Student knows all the required educational material, understands it well and has firmly mastered it. Questions (within the program) are answered without difficulty. Student uses standard language in verbal answers and does not make mistakes
"passed"	3	Student knows the core educational material. Student answers questions (within the program) uneasily. Student makes mistakes in the presentation of the material and in the construction of speech during verbal answers
"failed"	2	Student does not know most of the educational material, tends to uncertainly answer merely teacher's guiding questions. Student makes frequent and gross mistakes in verbal answers.

**3. The procedure of conducting actual monitoring**

Actual monitoring of academic course performance is provided by means of tests, case tasks, presentation of practical skills, and control questions.

## **4. Examples of materials and criteria for interim assessment**

### **4.1. An indicative list of control questions to prepare for the test:**

#### **AI 1 PC-2.1.**

Gastric ulcer. Epidemiology, etiology and pathogenesis, clinical aspect features, diagnosis and differential diagnosis, complications, treatment (medicinal, non-medicinal, indications for surgical treatment), disability assessment, rehabilitation, follow-up care, prevention.

#### **AI 2 PC-2.2.**

Alcoholic liver damage. Classification, etiology and pathogenesis, clinical aspect, diagnosis and differential diagnosis, complications, treatment features of particular forms, disability assessment, rehabilitation, follow-up care, prevention.

#### **AI 3 PC-2.3.**

Symptomatic ulcers of the gaster and duodenum. Classification, etiology and pathogenesis, clinical aspect, diagnosis and differential diagnosis, complications, treatment (medicinal, non-medicinal), disability assessment, rehabilitation, follow-up care, prevention.

#### **AI 4 PC-2.4.**

Autoimmune hepatitis. Classification, etiology and pathogenesis, clinical aspect, diagnosis and differential diagnosis, treatment (indications, selection of therapy, initiation of remission, remission support, cancellation of therapy), disability assessment, rehabilitation, follow-up care.

#### **AI 5 PC-2.5.**

Irritable bowel syndrome (IBS). Classification, etiology and pathogenesis, clinical aspect, diagnosis and differential diagnosis, complications, treatment (medicinal, non-medicinal), disability assessment, rehabilitation, follow-up care, prevention.

#### **AI 1 PC-3.1.**

Symptomatic ulcers of the gaster and duodenum. Classification, etiology and pathogenesis, clinical aspect, diagnosis and differential diagnosis, complications, treatment (medicinal, non-medicinal), disability assessment, rehabilitation, follow-up care, prevention.

#### **AI 2 PC-3.2.**

Drug-induced liver injury (DILI). The prevalence of DILI. Causes, pathogenesis and risk factors of development. Clinical aspect. Diagnostic criteria and classification. Therapeutic tactics. Prognosis and outcomes of DILI. Sociomedical examination and rehabilitation. Follow-up care. Prevention.

#### **AI 3 PC-3.3.**

Crohn's disease. Classification, etiology and pathogenesis, clinical aspect, diagnosis and differential diagnosis, complications, treatment (medicinal, non-medicinal, comprehension of surgical treatment methods), disability assessment, rehabilitation, follow-up care, prevention.

#### **AI 4 PC-3.4.**

Constipation. Classification, etiology and pathogenesis, clinical aspect, diagnosis and differential diagnosis, complications, treatment (medicinal, non-medicinal), disability assessment, rehabilitation, follow-up care, prevention. Constipation as a geriatric syndrome.

#### **AI 1 PC-4.1.**

Celiakiya. Classification, etiology and pathogenesis, clinical aspect, diagnosis and differential diagnosis, complications, treatment (medicinal, non-medicinal), disability assessment, rehabilitation, follow-up care, prevention.

#### **AI 2 PC-4.2.**

Chronic viral hepatitis. The relevance of the problem. Specification of hepatitis C virus. An algorithm for the diagnosis of hepatitis C. Antiviral therapy of chronic hepatitis C. Treatment programs for chronic hepatitis C in special groups of patients. Sociomedical examination and rehabilitation. Follow-up care.

#### AI 1 PC-5.1.

Diverticular disease of the colon. Classification, etiology and pathogenesis, clinical aspect, diagnosis and differential diagnosis, complications, treatment (medicinal, non-medicinal, comprehension of surgical treatment methods), disability assessment, rehabilitation, follow-up care, prevention.

Assessment criteria, assessment scale for control questions

Grade		Description
"passed with distinction"	5	Student knows all the educational material, understands it perfectly and has firmly mastered it. Student gives correct, conscious and confident answers to questions (within the program). Student uses correct standard language and does not make mistakes in verbal answers
"passed with credit"	4	Student knows all the required educational material, understands it well and has firmly mastered it. Questions (within the program) are answered without difficulty. Student uses standard language in verbal answers and does not make mistakes
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"failed"	2	Student does not know most of the educational material, tends to uncertainly answer merely teacher's guiding questions. Student makes frequent and gross mistakes in verbal answers.

#### 4.2. Examples of case tasks:

##### AI 1 PC-2.1.

##### CASE TASK № 1

##### Instructions: GET ACQUAINTED WITH THE CLINICAL CASE AND GIVE DETAILED ANSWERS TO THE QUESTIONS

##### The main part

Patient M., 49 years old, complains of aching pains in the epigastric region (more on the left) in 20 minutes after eating, acid regurgitation and heartburn resolving after taking "almagel".

A year ago, there were similar complaints after errors in the diet; the patient took "maalox" and "famotidine" on his own.

From the life medical history: smoking, often alcohol intake, irregular dry diet.

Objectively: Condition is satisfactory, normosthenic. The tongue is overlaid at the root. The abdomen is soft, painful in the epigastric region on the left. Mendel's sign is positive. Other organs are not involved.

##### Questions:

1. Identify the leading syndrome.
2. State a preliminary diagnosis.
3. Develop an examination plan.
4. What laboratory and instrumental studies are needed to determine a definitive diagnosis?
5. List preventive measures to control the development and progression of this pathology.

## AI 2 PC-2.2.

### CASE TASK № 2

#### Instructions: GET ACQUAINTED WITH THE CLINICAL CASE AND GIVE DETAILED ANSWERS TO THE QUESTIONS

**The main part** Patient, 50 years old, complains of swelling of the face and lower limbs, weakness, decreased appetite, shortness of breath during physical exertion, dizziness, thirst, periodic diarrhea.

10 years ago, he suffered an open hip fracture on the left, was repeatedly hospitalized in a surgical unit for post-traumatic osteomyelitis, underwent three surgeries on his left hip, and felt worse 3 months ago, when the above-described complaints appeared and gradually began to increase.

Objectively: General condition is of moderate severity. The skin is pale, cold to the touch. Loose swelling of the lower limbs, facial swelling. The left leg is three cm shorter than the right, and there are postoperative scars in the middle third of the thigh. Respiration is vesicular. The heart tones are muffled, the rhythm is correct. Blood pressure is 110/60 mm Hg, pulse is 80 beats per minute. The tongue is covered with a white plaque. The abdomen is soft, painless, slightly enlarged, and there is a dullness in flanks on both sides in comparison to the midline.

Complete blood count: erythrocytes  $3.4 \times 10^{12}$ , hemoglobin — 100 g/l, color index — 0.95; leukocytes -  $5.0 \times 10^{19}$ , ESR — 60 mm/hour. Clinical urinalysis: quantity 100.0 ml; USG 1020, protein — 2 g/l, erythrocytes — 0, hyaline casts — 3-4 in line of vision. Daily protein loss is 6g. Biochemical blood assay: total protein 45 g/l, albumin 24 g/l, cholesterol 9.2 mmol/L, creatinine 120 mcmol/l.

#### QUESTIONS

1. Identify the leading syndromes.
2. State a preliminary diagnosis.
- 3 Develop an examination plan.
4. Indicate the expected results of clinical tests (laboratory and instrumental data).
5. Develop a treatment plan, specifying the regimen, diet, medication (drug groups), and other treatment methods.

## AI 3 PC-2.3.

### CASE TASK № 3

#### Instructions: GET ACQUAINTED WITH THE CLINICAL CASE AND GIVE DETAILED ANSWERS TO THE QUESTIONS

**The main part** A 52-year-old man consulted a physician complaining of pain in the heart area intensifying in lying position, severe weakness, headaches, loss of appetite, constant nausea, weight loss, and skin itch.

From the medical history: upon admission to the educational institute at the age of 17, changes in urine tests were detected, and he was not examined or treated any further. Over the past 4-5 years, he has periodically noted an increase in blood pressure, and no therapy has been performed. For 2-3 years, he regularly goes to the toilet at night.

Objectively: The skin is pale with an earthy tinge, traces of scratches, swelling of the shins. Pulse rate is 60 per minute, rhythmic. Blood pressure is 180/100 mm Hg,

The cardiac borders are expanded, rasping pansystolic murmur, most expressed at the 1st and 5th points of auscultation, dullness of heart sounds.

Clinical blood test: hemoglobin 62 g/l. Biochemical blood assay: Creatinine 1200 mcmol/L.

Electrocardiogram (ECG): elevation of the extended ST segment, high T.

#### QUESTIONS

1. Identify the leading syndrome.
2. State a preliminary diagnosis.

3. Justify the patient management tactics
4. What urgent measures need to be carried out
5. List preventive measures to control the progression of this pathology.

**AI 4 PC-2.4.**

**CASE TASK № 4**

**Instructions: GET ACQUAINTED WITH THE CLINICAL CASE AND GIVE DETAILED ANSWERS TO THE QUESTIONS**

**The main part**

Patient N., 43 years old, complains of an increase in abdominal volume, swelling of the legs, bloating, heaviness in the right hypochondrium after eating, nausea, unstable stools, tendency to nosebleeds, weakness.

He has a history of heaviness in the right hypochondrium, bloating, unstable stools, and bitterness in his mouth for more than 7 years. During the last 3 months, the abdomen began to enlarge, and swelling appeared in the shins and feet.

From his life medical history: HBsAg+ was detected at the age of 30.

Objectively: Condition is of moderate severity. The skin is pale, dry, telangiectasia in the upper half of the body, palmar erythema.

The tongue is moist, swollen, and crimson in color. The abdomen is enlarged due to ascites, moderate soreness is in the right hypochondrium. The spleen is not palpable. Ragosa's sign is positive. Swelling of the legs and feet.

**Questions:**

1. Identify the leading syndrome.
2. State a preliminary diagnosis.
3. Develop an examination plan.
4. Develop a treatment plan.
5. List preventive measures to control the development and progression of this pathology.

**AI 5 PC-2.5.**

**CASE TASK № 5**

**Instructions: GET ACQUAINTED WITH THE CLINICAL CASE AND GIVE DETAILED ANSWERS TO THE QUESTIONS**

**The main part**

A 62-year-old patient had weakness, transient nausea, and thirst for 2 days. Then the weakness suddenly intensified. Tinnitus, heart pounding, and dizziness appeared, and he lost consciousness twice before the ambulance crew arrived. He has been suffering from gastric ulcer for 30 years.

The ambulance doctor confirmed the pallor of the patient's skin, a frequent weak pulse, a decrease in blood pressure to 80/50 mm Hg, and bloating. In the presence of a doctor, the patient had vomiting, vomiting matters had the color of "coffee grounds".

**Questions:**

1. Identify the leading syndrome.
2. State a preliminary diagnosis.
3. Develop an examination plan.
4. Identify a therapeutic tactics.
5. Identify preventive measures.

**AI 1 PC-3.1.**

**CASE TASK № 6**

**Instructions: GET ACQUAINTED WITH THE CLINICAL CASE AND GIVE DETAILED ANSWERS TO THE QUESTIONS**

**The main part**

A 38-year-old patient, a surgeon by occupation, turned to a local physician complaining of general weakness, sweating, a sharp decrease in performance, lack of appetite, constant nausea, and pain in large joints at night. He considers himself ill during the last 10 days, since

the above-mentioned complaints arose. He has not visited a doctor. 4 days before going to the clinic, he noticed darkening of the urine, as well as yellowing of the skin, sclera and visible mucous membranes, followed by a slight skin itch. He contacted the local outpatient clinic due to appearance of the above-mentioned complaints.

Objectively: Condition is of moderate severity, consciousness is clear. Body temperature is 36.3 C. Moderate jaundice of the skin, sclera and visible mucous membranes with isolated scratches on the anterior surface of the abdominal wall. The joint area is not changed. Blood pressure is 120/70 mm Hg. Pulse is 80 beats per 1 minute, rhythmic. Examination of the organ systems revealed no pathology from the cardiovascular and respiratory systems. The tongue is dry, covered with plaque at the edge. The abdomen is soft, painful in the right hypochondrium, and painless in the rest of the body. The liver protrudes 3 cm from under the costal arch, has a soft elastic consistency, with a pointed, smooth edge, and the spleen is not palpable. Urine is the color of beer, stool is acholic.

**Questions:**

1. Identify the leading syndrome.
2. State a preliminary diagnosis.
3. Determine the diagnostic tactics of patient management.
4. What laboratory and instrumental studies should be carried out?
5. List preventive measures to control the development and progression of this pathology.

**AI 2 PC-3.2.**

**CASE TASK № 7**

**Instructions: GET ACQUAINTED WITH THE CLINICAL CASE AND GIVE DETAILED ANSWERS TO THE QUESTIONS**

**The main part**

Patient S., 35 years old, driver by occupation, went to a local physician complaining of general weakness, decreased performance, heaviness and discomfort in the right hypochondrium; over the past 6 months, he has occasionally noted darkening of urine. He had a history of acute viral hepatitis B about three years ago. After discharge from the hospital, he was not registered with the follow-up care, did not go to the outpatient hospital or to the infectious disease specialist. About six months ago, the above-mentioned complaints appeared. He went to the outpatient hospital to see a local physician for examination due to the deterioration of his health over the past 6 months.

Objectively: Condition is satisfactory, consciousness is clear. Body temperature is 36.7 °C. Subicteritinousness of the skin and sclera is observed on examination. Blood pressure is 120/80 mm Hg. Pulse is 70 beats per 1 minute, rhythmic. Examination of the organ systems revealed no pathology from the cardiovascular and respiratory systems. The tongue is dry, covered with plaque at the edge. The abdomen is soft, sensitive in the right hypochondrium, and painless in the rest of the body. The liver, of a dense consistency, protrudes from under the costal arch by 3 cm. The lower pole of the spleen is palpated. No peripheral edema.

**Questions:**

1. Identify the leading syndrome.
2. State a preliminary diagnosis.
3. Examination plan.
4. Develop a treatment plan.
5. List preventive measures to control the development and progression of this pathology.

**AI 3 PC-3.3.**

**CASE TASK № 8**

**Instructions: GET ACQUAINTED WITH THE CLINICAL CASE AND GIVE DETAILED ANSWERS TO THE QUESTIONS**

**The main part**

A 62-year-old patient had weakness, transient nausea, and thirst for 2 days. Then the weakness suddenly intensified. Tinnitus, heart pounding, and dizziness appeared, and he lost consciousness twice before the ambulance crew arrived. He has been suffering from gastric ulcer for 30 years.

The ambulance doctor confirmed the pallor of the patient's skin, a frequent weak pulse, a decrease in blood pressure to 80/50 mm Hg, and bloating. In the presence of a doctor, the patient had vomiting, vomiting matters had the color of "coffee grounds".

**Questions:**

1. Identify the leading syndrome.
2. State a preliminary diagnosis.
3. Develop an examination plan.
4. Identify a therapeutic tactics.
5. Identify preventive measures.

**AI 4 PC-3.4.**

**CASE TASK № 9**

**Instructions: GET ACQUAINTED WITH THE CLINICAL CASE AND GIVE DETAILED ANSWERS TO THE QUESTIONS**

**The main part**

A 65-year-old patient complains of general weakness, intense itching of the skin, and an increase in abdominal volume. According to her medical history, the above-mentioned complaints have been bothering for 2 years. Outpatient examination revealed an acceleration of ESR to 30 mm/hour in a clinical blood test, and an increase in GGTP activity of 680 U/L, ALP 500 U/L, and hypoalbuminemia in a biochemical blood assay. Ultrasound of the abdominal organs revealed hepatosplenomegaly, diffuse changes of liver tissue, ascites. Serological markers of viral hepatitis B and C are negative. A high titer of antimitochondrial antibodies was detected.

**Questions:**

1. Identify the leading syndrome.
2. What additional laboratory and instrumental examination methods should be performed for the final verification of the diagnosis?
3. State a preliminary diagnosis.
4. Determine the patient therapeutic management tactics.
5. Identify preventive measures.

**AI 1 PC-4.1.**

**CASE TASK № 10**

**Instructions: GET ACQUAINTED WITH THE CLINICAL CASE AND GIVE DETAILED ANSWERS TO THE QUESTIONS**

**The main part**

A 38-year-old patient, a surgeon by occupation, turned to a local physician complaining of general weakness, sweating, a sharp decrease in performance, lack of appetite, constant nausea, and pain in large joints at night. He considers himself ill during the last 10 days, since the above-mentioned complaints arose. He has not visited a doctor. 4 days before going to the clinic, he noticed darkening of the urine, as well as yellowing of the skin, sclera and visible mucous membranes, followed by a slight skin itch. He contacted the local outpatient clinic due to appearance of the above-mentioned complaints.

Objectively: Condition is of moderate severity, consciousness is clear. Body temperature is 36.3 C. Moderate jaundice of the skin, sclera and visible mucous membranes with isolated scratches on the anterior surface of the abdominal wall. The joint area is not changed. Blood pressure is 120/70 mm Hg. Pulse is 80 beats per 1 minute, rhythmic. Examination of the organ systems revealed no pathology from the cardiovascular and respiratory systems. The tongue is

dry, covered with plaque at the edge. The abdomen is soft, painful in the right hypochondrium, and painless in the rest of the body. The liver protrudes 3 cm from under the costal arch, has a soft elastic consistency, with a pointed, smooth edge, and the spleen is not palpable. Urine is the color of beer, stool is acholic.

**Questions:**

1. Identify the leading syndrome.
2. State a preliminary diagnosis.
3. Determine the diagnostic tactics of patient management.
4. What laboratory and instrumental studies should be carried out?
5. List preventive measures to control the development and progression of this pathology.

**AI 2 PC-4.2.**

**CASE TASK № 11**

**Instructions: GET ACQUAINTED WITH THE CLINICAL CASE AND GIVE DETAILED ANSWERS TO THE QUESTIONS**

**The main part**

Patient N., 43 years old, complains of an increase in abdominal volume, swelling of the legs, bloating, heaviness in the right hypochondrium after eating, nausea, unstable stools, tendency to nosebleeds, weakness.

He has a history of heaviness in the right hypochondrium, bloating, unstable stools, and bitterness in his mouth for more than 7 years. During the last 3 months, the abdomen began to enlarge, and swelling appeared in the shins and feet.

From his life medical history: HBsAg+ was detected at the age of 30.

Objectively: Condition is of moderate severity. The skin is pale, dry, telangiectasia in the upper half of the body, palmar erythema.

The tongue is moist, swollen, and crimson in color. The abdomen is enlarged due to ascites, moderate soreness is in the right hypochondrium. The spleen is not palpable. Ragosa's sign is positive. Swelling of the legs and feet.

**Questions:**

1. Identify the leading syndrome.
2. State a preliminary diagnosis.
3. Develop an examination plan.
4. Develop a treatment plan.
5. List preventive measures to control the development and progression of this pathology.

**AI 1 PC-5.1.**

**CASE TASK № 12**

**Instructions: GET ACQUAINTED WITH THE CLINICAL CASE AND GIVE DETAILED ANSWERS TO THE QUESTIONS**

**The main part**

Patient M., 49 years old, complains of aching pains in the epigastric region (more on the left) in 20 minutes after eating, acid regurgitation and heartburn resolving after taking "almagel".

A year ago, there were similar complaints after errors in the diet; the patient took "maalox" and "famotidine" on his own.

From the life medical history: smoking, often alcohol intake, irregular dry diet.

Objectively: Condition is satisfactory, normosthenic. The tongue is overlaid at the root. The abdomen is soft, painful in the epigastric region on the left. Mendel's sign is positive. Other organs are not involved.

**Questions:**

1. Identify the leading syndrome.
2. State a preliminary diagnosis
3. Develop an examination plan.

4. What laboratory and instrumental studies are needed to determine a definitive diagnosis?  
 5. List preventive measures to control the development and progression of this pathology.

Assessment criteria, assessment scale for case tasks

Grade	Description	
"passed with distinction"	5	Case solving is detailed, consistent, competent, with theoretical justifications, with necessary schematic images and visual presentations, with correct and fluent command of terminology; the answers to additional questions are correct, clear
"passed with credit"	4	Case solving is detailed, but not logical enough, with isolated particular errors, some difficulties in theoretical justification, schematic images and visual presentations, the answers to additional questions are correct, but not clear enough
"passed"	3	Case solving is not complete enough, inconsistent, with errors, weak theoretical justification, with significant difficulties and errors in schematic representations and visual presentations, the answers to additional questions are not clear enough, with errors in details
"failed"	2	Case solving is incomplete, inconsistent, with gross errors, without theoretical justification, without schematic images and visual presentations, or with a large number of errors, the answers to additional questions are incorrect or missing

Assessment criteria, final assessment scale (credit)

Grade	Description
"passed"	Student performs a complete understanding of the problem. Student knows the basic concepts within the discussed issue, the methods of study and their interrelation, practical problems and has an idea of the development promising directions of the issue under consideration
"not passed"	Student performs a lack of understanding of the problem. Student does not know the basic concepts and methods of study, and has no idea about the main practical problems within the discussed issue

## 5. The procedure of the interim assessment

The interim assessment of the academic course is conducted by means of a credit: Credit includes control questions, case tasks.

The Ministry of Health of the Russian Federation

**Federal State Budgetary Educational Institution  
of Higher Education**  
**"North-Western State Medical University named after I.I. Mechnikov"  
under the Ministry of Health of the Russian Federation**

(FSBEI HE NWSMU named after I.I. Mechnikov under the Ministry of Health of the Russian Federation)

Major 31.05.01 General Medicine

The Department of Propaedeutics of Internal Diseases, Gastroenterology and Nutrition named after S.M. Ryss

**THE CARD OF EDUCATIONAL AND METHODICAL LITERATURE PROVISION**  
The academic course "Gastroenterology in outpatient care"

	<b>List of literature</b>	<b>Number of copies</b>	<b>Number of copies for 1 student</b>
	Vnutrennie bolezni [Internal diseases]: In 2 volumes. Vol. 1. / ed. by V. S. Moiseev, A. I. Martynov, N. A. Mukhin, Moscow : GEOTAR-Media, 2015. 958 p. - ISBN 978-5-9704-3309-6 (under the general editorship)	466	0.5
	Vnutrennie bolezni [Internal diseases]: In 2 volumes. Vol. 2 / ed. by V. S. Moiseev, A. I. Martynov, N. A. Mukhin, Moscow: GEOTAR-Media, 2015. 895 p. : fig.- ISBN 978-5-9704-3309-6 (under the general editorship)	466	0.5
	Laboratorno-instrumental'nye metody issledovaniya v sindromnoj diagnostike po kursu propedevtiki vnutrennih boleznej: ucheb. posobie [Laboratory and instrumental study methods under syndrome diagnostics in the course of propaedeutics of internal diseases: manual] / E. B. Avalueva, I. A. Oganezova, L. S. Oreshko [et al.] ; ed. by I. G. Bakulin ; The Ministry of Health of the Russian Federation, FSBEI HE NWSMU named after I. I. Mechnikov, Department of Propaedeutics of Internal Diseases, Gastroenterology and Nutrition. - 2nd ed., revised and additional - St. Petersburg: Publishing House of NWSMU named after I. I. Mechnikov, 2018. - 208 p.: fig., table. - Bibliogr.: p. 9.	741+ LMS NWSM U named after I.I. Mechni kov	0.5
<b>Electronic resources:</b>			
<b>EML "Konsul'tant vracha" [Doctor's Consultant]</b>			
Ivashkin, V. T. Gastroenterologiya. Natsional'noe rukovodstvo [Gastroenterology. National guidelines]/ ed. by V. T. Ivashkina, T. L. Lapina - Moscow: GEOTAR-Media, 2018. - 464 p. - ISBN 978-5-9704-4406-1. - Text : electronic // URL : <a href="https://www.rosmedlib.ru/book/ISBN9785970444061.html">https://www.rosmedlib.ru/book/ISBN9785970444061.html</a>			

## **ELS "Bookup"**

Propedevtika i chastnaya patologiya vnutrennih boleznej: uchebnoe posobie dlya kursantov i studentov fakul'tetov podgotovki vrachej [Propaedeutics and clinical pathology of internal diseases: manual for cadets and students of medical training faculties] / L. L. Bobrov, A. G. Cropped - 3rd ed., additional and revised. - St. Petersburg: SpetsLit, 2014. - 358 p. - ISBN 9785299005783. - Text : electronic // ELS "Bookup" : [website]. - URL : <https://www.books-up.ru/ru/read/propedevtika-i-chastnaya-patologiya-vnutrennih-boleznej-3564947>

### **Electronic versions in the MOODLE distance learning system**

Differencial'naya diagnostika diarejnogo sindroma: ucheb. posobie [Differential diagnosis of diarrheal syndrome: manual] / I. A. Oganezova, L. N. Belousova, T. E. Skvortsova [et al.] ; The Ministry of Health of the Russian Federation, FSBEI HE NWSMU named after I. I. Mechnikov, Department of Propaedeutics of Internal Diseases, Gastroenterology and Nutrition. - St. Petersburg: Publishing House of NWSMU named after I. I. Mechnikov, 2017. - 64 p. - (Medical education). - Bibliogr.: p. 63 (6 titles).

[https://sdo.szgmu.ru/pluginfile.php/512594/mod\\_resource/content/6/%D0%94%D0%B8%D0%B0%D0%B3%D0%BD%D0%BE%D1%81%D1%82%D0%B8%D0%BA%D0%B0%D0%B4%D0%BB%D0%B0%D1%80%D0%B5%D0%B8.pdf](https://sdo.szgmu.ru/pluginfile.php/512594/mod_resource/content/6/%D0%94%D0%B8%D0%B0%D0%B3%D0%BD%D0%BE%D1%81%D1%82%D0%B8%D0%BA%D0%B0%D0%B4%D0%BB%D0%B0%D1%80%D0%B5%D0%B8.pdf)

Skazyvaeva, Ekaterina Vasilyevna. Gastroesophageal'naya reflyuksnaya bolezn': etiologiya, diagnostika, lechenie: ucheb. posobie [Gastroesophageal reflux disease: etiology, diagnosis, treatment: manual] / E. V. Skazyvaeva, L. N. Belousova, E. B. Avalueva; The Ministry of Health of the Russian Federation, FSBEI HE NWSMU named after I. I. Mechnikov, Department of Propaedeutics of Internal Diseases, Gastroenterology and Nutrition. - St. Petersburg: Publishing House of NWSMU named after I. I. Mechnikov, 2016. - 44 p. - (Medical education). - Bibliogr.: p. 43 (7 titles).

[https://sdo.szgmu.ru/pluginfile.php/512582/mod\\_resource/content/4/%D0%93%D0%AD%D0%A0%D0%91.pdf](https://sdo.szgmu.ru/pluginfile.php/512582/mod_resource/content/4/%D0%93%D0%AD%D0%A0%D0%91.pdf)

Celiakiya. Voprosy etiologii, patogeneza, klassifikacji, diagnostiki, lecheniya: ucheb. posobie [Celiakiya. Questions of etiology, pathogenesis, classification, diagnosis, treatment: manual] / L. S. Oreshko, S. I. Sitkin, E. A. Semenova, M. S. Zhuravleva; the Ministry of Health of the Russian Federation Federation, FSBEI HE NWSMU named after I. I. Mechnikov, Department of Propaedeutics of Internal Diseases, Gastroenterology and Nutrition. - St. Petersburg: Publishing House of NWSMU named after I. I. Mechnikov, 2018. 48 p. : ill., tab. - Bibliogr.: pp. 38-39 (19 titles).

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Nazarenko, L. I. Klinicheskaya vitaminologiya : Uchebnoe posobie [Clinical vitaminology: manual] / L. I. Nazarenko; Ministry of Health of the Russian Federation, NWSMU named after I. I. Mechnikov, Department of Propaedeutics of Internal Diseases, Gastroenterology and Nutrition. - St. Petersburg: Publishing House of NWSMU named after I. I. Mechnikov, 2018. 148 p.: tab. - Bibliogr.: p. 121.

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Laboratorno-instrumental'nye metody issledovaniya v sindromnoj diagnostike po kursu propedevtiki vnutrennih boleznej: uchebnoe posobie [Laboratory and instrumental research methods in syndrome diagnostics in the course of propaedeutics of internal diseases: manual] / E. G. Bakulina. — 2nd ed., revised. and additional — St. Petersburg: Publishing House of NWSMU named after I. I. Mechnikov, 2018. — 208 p.

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