

Summary of the working program of the academic discipline

« ULTRASOUND DIAGNOSTICS IN THE FIELD OF THE THERAPY AND ENDOCRINOLOGY »

(name of the academic discipline)

General Educational Program of higher education (specialist's degree programs)

31.05.01 General Medicine

Department: ENDOCRINOLOGY AND INTERNAL DISEASES

1. The purpose and objectives of mastering the academic discipline Basics of ultrasound diagnostics in the clinic of internal diseases (hereinafter – the discipline):

1.1. The main goal of mastering and teaching the discipline “Basics of ultrasound diagnostics in the clinic of internal diseases”: to participate in forming competencies provided for by the specialty study program in accordance with the GEP HE with advanced development of elements corresponding to the profile of the discipline being studied

1.2. Tasks of the discipline:

- Acquaintance of students with the role and importance of ultrasound diagnostics in therapy and endocrinology in the general system of medical science and practice.
- Mastering by students of the basic skills of ultrasound diagnostics in therapy and endocrinology in accordance with the program of the discipline

1.3. Requirements to the deliverables of mastering the discipline

As a result of completing the discipline, the student should

Know:

1. Physical and technical foundations of ultrasound diagnostics.
2. Indications for various methods of ultrasound diagnostics.
3. Terminology and basic methods of ultrasound diagnostics.
4. Methodology for ultrasound examination of the abdominal organs, heart, blood vessels and thyroid gland.
5. Fundamentals of ultrasound diagnostics of the abdominal organs, heart, blood vessels and thyroid gland.
6. Principles of differential diagnosis of pathology of the abdominal organs, heart, blood vessels and thyroid gland

Be able to:

1. Prepare the ultrasound scanner for work.
2. Select the required probe and examination settings.
3. Determine the indications for an ultrasound examination and write a referral for the study.
4. Write the ultrasound protocol and evaluate the ultrasound pathology of the abdominal cavity, heart, blood vessels and thyroid gland.
5. Follow the safety requirements when working on an ultrasound scanner.

Possess:

1. Skills of working with an ultrasound scanner:
 - switch on the ultrasonic scanner and connecting various probes to it;
 - switching in the course of research of various settings of ultrasonic scanning;
 - adjusting the grayscale scanning and Doppler settings and selecting the optimal image parameters.
2. Principles of writing an ultrasound protocol.
3. Evaluation of the results of ultrasound in the context of the clinical picture.

2. Position of the academic discipline in the structure of the General Educational Program of Higher Education (GEP HE) of the organization.

2.1. The discipline " ULTRASOUND DIAGNOSTICS IN THE FIELD OF THE THERAPY AND ENDOCRINOLOGY " refers to the facultative discipline is teaching in 4th year of studying

2.2. To study the discipline the following knowledge, skills and abilities are necessary, formed by previous disciplines: normal and pathological anatomy, normal and pathological physiology, histology, propaedeutics of internal diseases.

2.3. Mastering the discipline is required for forming the following knowledge - not applicable in connection with the optional study of the discipline

3. Deliverables of mastering the academic discipline and metrics of competence acquisition

Mastering the discipline aims at acquiring the following universal (UC) or/and general professional (GPC) or/and professional (PC) competencies

№	Competence code	Content of the competence (or part of it)	Code and name of the competence acquisition metric	As a result of studying the discipline, students must:		
				know	Be able to	Possess
1.	UC-1	Able to carry out critical analysis of problem situations on the basis of a systematic approach, to develop an action strategy	IET 1.1 Knows: methods of critical analysis and evaluation of modern scientific achievements; basic principles of critical analysis IUK 1.2 Able to: gain new knowledge based on analysis, synthesis, etc.; collect data on complex scientific problems related to the professional field; search for information and solutions based on action, experiment and experience IUK 1.3 Has practical experience:	methods of critical analysis and evaluation of modern scientific achievements; basic principles of critical analysis,	gain new knowledge on the basis of analysis, synthesis, etc.; collect data on complex scientific problems related to the professional field; search for information and solutions based on action, experiment and experience	skills in studying the problem of professional activity using analysis, synthesis and other methods of intellectual activity; development of an action strategy to solve professional problems

			researching the problem of professional activity using analysis, synthesis and other methods of intellectual activity; developing an action strategy to solve professional problems			
2.	GPC-4	Able to use medical devices provided for by the procedure for the provision of medical care, as well as to conduct examinations of the patient in order to establish a diagnosis	IOPC 4.1 Knows the method of collecting anamnesis of life and diseases, complaints from patients (their legal representatives); methods of examination and physical examination; clinical picture, methods of diagnosis of the most common diseases; methods of laboratory and instrumental studies to assess the state of health, medical indications for conducting research, rules for interpreting their results; the International Statistical Classification	Knows the method of collecting anamnesis of life and diseases, complaints from patients (their legal representatives); methods of examination and physical examination; clinical picture, methods of diagnosis of the most common diseases; methods of laboratory and instrumental studies to assess the state of health, medical indications for conducting research, rules for interpreting their results; the International Statistical Classification	collect complaints, anamnesis of life and disease from patients (their legal representatives), identify risk factors and causes of disease development; apply methods of examination and physical examination of patients; interpret the results of examination and physical examination of patients; diagnose the most common pathology in patients; identify cancer risk factors; formulate a preliminary diagnosis, draw up a plan for laboratory, instrumental and additional studies in accordance with	Has practical experience: collecting complaints, anamnesis of life and disease in patients (their legal representatives), identifying risk factors and causes of disease development; examination and physical examination of patients; diagnosis of the most common diseases; identification of risk factors for major oncological diseases; formulation of a preliminary diagnosis, drawing up a plan for conducting instrumental, laboratory, additional studies,

			<p>of Diseases and health-related problems (ICD); conditions requiring emergency medical care; the procedure for the use of medical devices in accordance with the current procedures for the provision of medical, clinical recommendations (treatment protocols) on the provision of medical care, assistance taking into account the standards of medical care</p> <p>IOPK 4.2 Is able to: collect complaints, anamnesis of life and disease in patients (their legal representatives), identify risk factors and causes of disease; apply methods of examination and physical examination of patients; interpret the results of examination</p>	<p>of Diseases and Health Problems (ICD); conditions requiring emergency medical care; the procedure for the use of medical devices in accordance with the current procedures for the provision of medical, clinical recommendations (treatment protocols) on the provision of medical care, assistance taking into account the standards of medical care</p>	<p>the procedures for the provision of medical care, clinical recommendations, taking into account medical standards; refer patients to laboratory, instrumental and additional studies in accordance with the current procedures for the provision of medical care, clinical recommendations, taking into account the standards of medical care; refer patients for consultations to specialist doctors in accordance with the procedures for the provision of medical care, clinical recommendations, taking into account the standards of medical care; interpret and analyze the results of consultations by specialist doctors of patients; interpret and analyze the results of the main (clinical) and additional (laboratory, instrumental)</p>	<p>consultations of specialist doctors; referral of patients to instrumental, laboratory, additional studies, consultations of specialist doctors in accordance with the current procedures for the provision of medical care, clinical recommendations, taking into account the standards of medical care; interpretation of data from additional (laboratory and instrumental) examinations of patients; making a preliminary diagnosis in accordance with the International Statistical Classification of Diseases and Related Health Problems (ICD); differential diagnosis of diseases; recognition of conditions that occur in</p>
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		<p>and physical examination of patients; diagnose the most common pathology in patients; identify risk factors for cancer; formulate a preliminary diagnosis, draw up a plan for laboratory, instrumental and additional studies in patients in accordance with the procedures for the provision of medical care, clinical recommendations, taking into account the standards of medical care; refer patients to laboratory, instrumental and additional studies in accordance with the current procedures for the provision of medical care, clinical recommendations, taking into account the standards of medical care; refer patients for consultations to specialist</p>		<p>methods of examination; conduct differential diagnosis of diseases in patients; identify clinical signs of sudden acute diseases, conditions, exacerbations of chronic diseases without obvious signs of a threat to life, requiring emergency medical care; apply medical devices in accordance with the current procedures for the provision of medical, clinical recommendations (treatment protocols) on the provision of medical care, care taking into account the standards of medical care</p>	<p>sudden acute diseases, exacerbation of chronic diseases without obvious signs of a threat to the patient's life and requiring emergency medical care; the use of medical devices in accordance with the current procedures for the provision of medical, clinical recommendations (treatment protocols) on the provision of medical care, care taking into account the standards of medical care</p>
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			doctors in accordance with the procedures for the provision of medical care, clinical recommendations, taking into account the standards of medical care; interpret and analyze the results of consultations by specialist doctors of patients; interpret and analyze the results of the main ... making a preliminary diagnosis in accordance with the International Statistical Classification of Diseases and Related Health Problems (ICD); differential diagnosis of diseases; recognition of conditions that occur in sudden acute diseases, exacerbation of chronic diseases without obvious signs of a threat to the patient's life and			
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			requiring emergency medical care; the use of medical devices in accordance with the current procedures for the provision of medical, clinical recommendations (treatment protocols) on the provision of medical care, care taking into account the standards of medical care			
3.	GPC-7	Able to prescribe treatment and monitor its effectiveness and safety	GPC 7.1 Knows: methods of drug and non-drug treatment, medical indications for the use of medical devices in the most common diseases; groups of drugs used to provide medical care in the treatment of the most common diseases; the mechanism of their action, medical indications and contraindications to the appointment;	methods of drug and non-drug treatment, medical indications for the use of medical devices in the most common diseases; groups of drugs used to provide medical care in the treatment of the most common diseases; the mechanism of their action, medical indications and contraindications to the appointment; compatibility,	develop a treatment plan for patients with the most common diseases in accordance with the procedures for the provision of medical care, clinical recommendations, taking into account the standards of medical care; prevent or eliminate complications, side effects, undesirable reactions, including unforeseen ones, resulting from diagnostic or therapeutic manipulations, the use of drugs	skills in developing a treatment plan for patients with the most common diseases in accordance with the current procedures for the provision of medical care, clinical recommendations, taking into account the standards of medical care; providing medical care in emergency and emergency form to patients with the most common diseases, in accordance

		<p>compatibility, possible complications, side effects, undesirable reactions, including serious and unforeseen; features of the provision of medical care in emergency forms</p> <p>GPC 7.2 Is able to:</p> <p>develop a treatment plan for patients with the most common diseases in accordance with the procedures for the provision of medical care, clinical recommendations, taking into account the standards of medical care; prevent or eliminate complications, side effects, undesirable reactions, including unforeseen ones, resulting from diagnostic or therapeutic manipulations, the use of drugs and (or) medical devices, non-drug treatment</p> <p>GPC 7.3 Has</p>	<p>possible complications, side effects, undesirable reactions, including serious and unforeseen; features of the provision of medical care in emergency forms.</p>	<p>and (or) medical devices, non-drug treatment</p>	<p>with the current procedures for the provision of medical care, clinical recommendations, taking into account the standards of medical care; selection and prescription of medicines, medical devices with the most common diseases for the treatment of the most common diseases in children and adults in accordance with the current procedures for the provision of medical care, clinical recommendations, taking into account the standards of medical care; evaluation of the efficacy and safety of the use of drugs, medical devices and non-drug treatment in patients with the most common diseases; selection and</p>
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		<p>practical experience in: developing a treatment plan for patients with the most common diseases in accordance with the current procedures for the provision of medical care, clinical recommendations, taking into account the standards of medical care; providing medical care in emergency and emergency form to patients with the most common diseases, in accordance with the current procedures for the provision of medical care, clinical recommendations, taking into account the standards of medical care; selection and prescription of medicines, medical devices with the most common diseases for the treatment of the most</p>		<p>appointment of non-drug treatment to patients with the most common diseases in accordance with the procedures for the provision of medical care, clinical recommendations, taking into account the standards of medical care; prevention and treatment of complications, side effects, adverse reactions, including unforeseen ones, arising as a result of diagnostic or therapeutic manipulations, the use of drugs and (or) medical devices, non-drug treatment; providing medical care to patients with sudden acute diseases, conditions, exacerbation of chronic diseases without obvious signs of a threat to the patient's life in an</p>
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			<p>common diseases in children and adults in accordance with the current procedures for the provision of medical care, clinical recommendations, taking into account the standards of medical care; evaluation of the efficacy and safety of the use of drugs, medical devices and non-drug treatment in patients with the most common diseases; undesirable reactions, including unforeseen ones, resulting from diagnostic or therapeutic manipulations, the use of drugs and (or) medical devices, non-drug treatment; providing medical care to patients with sudden acute diseases, conditions, exacerbation of chronic</p>			<p>urgent form; the use of drugs and medical devices in the provision of medical care in an emergency form</p>
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			diseases without obvious signs of a threat to the patient's life in an urgent form; the use of drugs and medical devices in the provision of medical care in Emergency			
4.	PC-1	Provision of primary health care to the population	ID-4 - Able to assess the need for therapeutic and diagnostic measures and prescribe their implementation in the pathologies studied within the discipline	Indications, limitations and contraindications for the implementation of diagnostic and therapeutic measures within the framework of the studied disease	Assess the patient's condition and prescribe diagnostic and therapeutic measures depending on the result within the framework of the studied diseases	Skills in conducting examination and interpreting the results obtained, determining the tactics of diagnosis and treatment for the studied diseases

4. Volume of the academic discipline and types of academic work

Total labor intensity of the discipline is 2 CU (72 AH)

Types of classes	Labor intensity	
	volume in credit units (CU)	volume in academic hours (AH)
classroom work, including	1	36
Lectures (L)	0,22	8
Laboratory practicum (LP)*	-	-
Practicals (P)	0,69	24
Seminars (S)	-	-
Student's individual work(SIW)	1	36
Mid-term assessment	0,11	4
TOTAL LABOR INTENCITY	2	72

5. Sections of the academic discipline and competencies that are formed

п/№	Name of the section of the academic discipline	Types of academic work* (in AH)					
		L	LP	P	S	SIW	total
1.	General questions of ultrasound diagnostics	2		3		2	5
2.	Particular issues of ultrasound diagnostics	6		21		34	28

3.	Mid-term assessment					4	
	TOTAL	8		24		36	72