Summaryof the working program of the academic discipline

« BASICS OF ULTRASOUND DIAGNOSTICS IN THE CLINIC OF INTERNAL DISEASES »
(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 study the principles of work on an ultrasound scanner, various ultrasound diagnostic technologies, to get acquainted with the methodology and basics of ultrasound diagnostics of the abdomen, heart, blood vessels and thyroid gland (PC-6).

1.2. Tasks of the discipline: to study the principles of work on an ultrasound scanner, various ultrasound diagnostic technologies, to get acquainted with the methodology and basics of ultrasound diagnostics of the abdomen, heart, blood vessels and thyroid gland.

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" refers to the part formed by the participants in the educational relations of Block 1 of the BEP HE of the specialist in the specialty 31.05.01 "General Medicine", studied in the 9th semester.
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, skills and abilities formed by the subsequent disciplines of the professional cycle: faculty therapy, occupational diseases, hospital therapy, endocrinology; polyclinic therapy; as well as industrial practices: "Physician's assistant", "Physician's assistant in an outpatient clinic".

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	The content of the competence (or part of it)	Code and name of the competence acquisition metric	As a result of studying the discipline, students should:		
				know	Be able to	possess
1.	PC-6	Able to refer the patient for laboratory, instrumental examination, for consultation with specialist doctors if there are medical indications in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards medical care and refer the patient for specialized medical care in an inpatient setting or in a day hospital if there are medical indications in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment	Know: general organization issues medical care population methods laboratory and instrumental research to assess the state of health, medical indications for research, rules their interpretation results; orders medical care, clinical recommendations (treatment protocols) on the provision of medical care, medical standards help IPC-6.2 Able to: substantiate the need and scope of laboratory examination of the patient; substantiate need and scope instrumental examination of the patient; substantiate need	Physical and technical bases of ultrasound diagnostics. Indications for various methods of ultrasound diagnostics. Terminology and basic methods of ultrasound diagnostics. Ultrasound technique abdominal organs and heart. Fundamentals of ultrasound diagnostics of the abdominal cavity and heart. Principles of differential diagnosis of pathology of the abdominal cavity and heart.	Prepare the ultrasound scanner for work. Select the required ultrasonic transducer and examination mode. Determine the indications for an ultrasound examination and write a referral for the study. Draw up an ultrasound protocol and evaluate the data of ultrasound examination of the abdominal cavity and heart. Comply with safety requirements when working with an ultrasound scanner.	Ultrasound Scanner Skills: - turning on the ultrasonic scanner and connecting various sensors to it; - switching in the course of research of various modes of ultrasonic scanning; - adjustment of greyscale scanning and dopplerography settings and selection of optimal image parameters. Principles of writing an ultrasound protocol. Evaluation of the results of ultrasound in the context of the clinical picture.

		protocols) on the provision of medical care, taking into account the standards medical care	referral of the patient for consultations with medical specialists; define medical indications for rendering ambulance, including emergency specialized medical care			

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

Types of classes	Labor intensity		Labor intensity (AH) in semesters
	volume in credit units (CU)	volume in academic hours (AH)	9
classroom work, including	1	22	22
Lectures (L)	0,11	4	4
Laboratory practicum (LP)*	-	-	-
Practicals (P)	0,5	18	18
Seminars (S)	-	-	-
Student's individual work(SIW)	0,39	14	14
Mid-term assessment			
Credit\exam *(specify the type)*		credit	credit
TOTAL LABOR INTENCITY	1	36	36

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

п/№	№ semester	Name of the section of the academic discipline	Types of academic work* (in AH)					
			L	LP	P	S	SIW	total
1.	9	Physical and technical bases of ultrasound diagnostics. Principles of work on the ultrasonic scanner.	2					2
2.	9	US reports principles and interpretation	2					2
3.	9	Bacics of ultrasound diagnosis of diseases of the abdominal cavity and kidneys			6		4	10
4.	9	Bacics of ultrasound diagnosis of diseases of the heart			6		4	10
5.	9	Bacics of ultrasound diagnosis of diseases of the magistral vessels			3		4	7
6.	9	Bacics of ultrasound diagnosis of diseases of the thyroid gland			3		2	5
		ИТОГО	4		18		14	36