AL-FARABI KAZAKH NATIONAL UNIVERSITY
Faculty of Medicine and Public Health

APPROVED

Academic Committee on the Quality of Education and Teaching of the Faculty of Medicine and Public Health

Minutes No. 1
«_26_»_September _ 2024

THE PROGRAM OF THE COMPREHENSIVE EXAM FOR THE MODULE PATHOLOGY OF THE ORGANS OF THE SYSTEM-1

ТЫНЫС АЛУ ЖҮЙЕСІ ПАТОЛОГИЯСЫ/ПАТОЛОГИЯ РЕСПИРАТОРНОЙ СИСТЕМЫ/PATHOLOGY OF RESPIRATORY SYSTEM
ЖҮРЕК-ТАМЫР ЖҮЙЕСІ ПАТОЛОГИЯСЫ/ПАТОЛОГИЯ СЕРДЕЧНО-СОСУДИСТОЙ СИСТЕМЫ /PATHOLOGY OF THE CARDIOVASCULAR SYSTEM
ҚАН ТҮЗУ ЖҮЙЕСІНІҢ ПАТОЛОГИЯСЫ ЖӘНЕ ТРАНСФУЗИОЛОГИЯ
ПАТОЛОГИЯ КРОВЕТРОВНОЙ СИСТЕМЫ И ТРАНСФУЗИОЛОГИЯ
PATHOLOGY OF THE CHEMATOPOIETIC SYSTEM AND TRANSFUSIOLOGY
АСҚОРЫТУ ЖҮЙЕСІ ПАТОЛОГИЯСЫ/ПАТОЛОГИЯ ПИЩЕВАРИТЕЛЬНОЙ СИСТЕМЫ/PATHOLOGY OF THE DIGESTIVE SYSTEM
ЗӘР ШЫҒАРУ ЖҮЙЕСІНІҢ ПАТОЛОГИЯСЫ ЖӘНЕ ГОМЕОСТАЗ/ПАТОЛОГИЯ МОЧЕВЫДЕЛИТЕЛЬНОЙ СИСТЕМЫ И ГОМЕОСТАЗ/PATHOLOGY OF THE URINARY SYSTEM AND HOMEOSTASIS
МЕДИЦИНАДАҒЫ ҚАЗАҚ / ОРЫС КӘСІБИ ТІЛІ /КАЗАХСКИЙ/РУССКИЙ ПРОФЕССИОНАЛЬНЫЙ ЯЗЫК В МЕДИЦИНЕ/ KAZAKH/RUSSIAN PROFESSIONAL LANGUAGE IN MEDICINE
АҒЫЛШЫН КӘСІБИ ТІЛІ МЕДИЦИНА/АНГЛИЙСКИЙ ПРОФЕССИОНАЛЬНЫЙ ЯЗЫК В МЕДИЦИНА/ ENGLISH IS A PROFESSIONAL LANGUAGE IN MEDICINE

3- COURSES
6B10114 MEDICINE
6B10114 МЕДИЦИНА

2024

The purpose of the program is to assess the complex of knowledge, skills and abilities acquired by the 3rd year student while training in the module.
The exam is complex and consists of 2 stages.
Stage 1 - comprehensive testing. Its purpose is to check the level of theoretical training of students, mastery of skills, readiness for professional activity, the degree of development of professional thinking.
Stage 2 - assessment of practical skills with OSCE method (objective structured clinical examination) with a standardized patient. Its purpose is to demonstrate practical and communication skills in accordance with the qualification requirements of the specialty.

The final exam score for each discipline consists of:

- 40% of the complex testing stage (stage 1)

- 60% of the OSCE stage (stage 2)

The assessment in the disciplines of "English professional language in medicine" consists of an overall assessment for a comprehensive test and an average overall assessment for the station "Questioning the patient" at the 2nd practical stage.

The exam is conducted according to the academic calendar at the end of the module. Testing – each student takes 150 tests in each discipline – a total of 510 tests OSCE - each student passes 14 stations (1 station for each discipline):

1. Pathology of the respiratory system/Тыныс алу жүйесінің патологиясы /Патология респираторной системы
2. Pathology of the cardiovascular system/Жүрек-тамыр жүйесі патологиясы /Патология сердечно-сосудистой системы
3. Pathology of the hematopoietic system and transfusiology/Қан түзу жүйесінің патологиясы және трансфузиология /Патология кроветворной системы и трансфузиология
4. Pathology of the digestive system/Асқорыту жүйесі патологиясы /Патология пищеварительной системы
5. Pathology of the urinary system and homeostasis/Зәр шығару жүйесінің патологиясы және гомеостаз /Патология мочевыделительной системы и гомеостаз /

Stage 1

Exam MCQ Test Matrix

	Discipline section Topics	Propaedeutics (Physical examination)	Patophysiology	Clinical chemistry – lab diagnostics	Imaging diagnostics	Pathomorphology (biopsy and autopsy findings)	Pharmacology (Treatment)		Total number of questions for discip line
	Pathology of respiratory system								
1	Syndrome of lunginfiltration	4	2	2	4	4	8	**24**	
	Lung infiltration syndrome, disseminated lungdiseases, cancer	1	1	2	4	2	4	**14**	
2	Syndrome of cavityin the lungs	0	2	2	2	2	2	**10**	
3	Syndrome of pleuraleffusion	0	2	2	2	2	2	**10**	
4	Syndrome ofbronchial obstruction	0	2	2	2	2	8	**16**	**100**
5	Acute respiratory failure	2	1	1	1	1	2	**8**	
6	Chronic respiratoryfailure	2	1	2	2	2	3	**12**	
7	Syndrome of lungemphysema.	1	1	1	1	1	1	**6**	
	Pathology of cardio-vascular system								
8	Atherosclerosis. CHD	2	2	2	2	2	5	**15**	
9	ACS IM	2	2	2	4	3	5	**18**	
10	Acute HF	2	1			2	3	**8**	
11	Arterial hypertension	3	2	3	3	3	5	**18**	
12	CHF	2	2	2	2	2	5	**15**	
13	Syndromes of valvular lesions	2	2	3	2	2	4	**16**	
14	Inflammatory heart diseases	2	2	1	2	2	3	**12**	
15	Cardiomyopathy.	1	1	1	1	1	1	**6**	**120**
16	Syndrome of impaired function of automatism, conduction and rhythm	2	3		5		2	**12**	
	Pathology of the hematopoietic system and transfusiology								
17	The syndrome is anemic,	0	2	4		1	4	**11**	**100**

18	Sideropenic syndrome,	0	1	2		2	4	**9**	
19	Cytopenic syndrome	1	2	5		1	2	**11**	
20	Hemolysis syndrome	1	2	5		1	2	**11**	
21	Transfusion of blood components	1	1	3		1	1	**7**	
22	Plethoric syndrome	1	1	2		1	2	**7**	
23	Myelo- and lymphoproliferation syndrome	1		5		2	4	**12**	
24	Hemorrhagic syndrome	1	1	5		1	2	**10**	
25	Disorders of vascular hemostasis	1	1	5		1	2	**10**	
26	DIC	1	1	5		1	4	**12**	
	Pathology of digestive system and liver								
20	Dysphagia	0	1		2	3	4	**10**	
21	Gastric dyspepsia	0	2	4	2	4	4	**16**	
22	Pancreas: pain in pancreas pathologyand extra secretory insufficiency	0	2	4	1	2	5	**14**	
23	Intestinal dyspepsia	0	2	2	2	3	4	**13**	**120**
24	Syndrome of cytolysis	0	2	4	1	3	6	**16**	
25	Cholestatic syndrome	0	2	2	2	2	4	**12**	
26	Portal hypertension	0	2	4	4	4	6	**20**	
27	Cirrhosis and its complications	0	3	4	4	2	6	**19**	
	Pathology of urinary system								
28	Pain in pathology of urinary system	0	1		2		2	**5**	
29	Syndrome of urinarysystem pathology (changes in urinalysis)	0	2	1		1		**4**	
30	Nephritic syndrome	0	2	2		3	4	**11**	
31	Nephrotic syndrome	0	2	2		3	4	**11**	
32	Acute kidney failure (AKI)	0	3	2		2	4	**11**	**70**
33	Chronic kidney failure (CKD)	1	3	2		4	4	**14**	
34	Homeostasis	0	1	2		1	2	**6**	
35	Male reproductive sytem	2	2			2	2	**8**	
		87	**65**	**79**	**60**	**77**	**97**	**465**	**510**

Stage 2

	Station	**Topic of case**
Pathology of respiratory system	1. History taking from a patient with respiratory pathology (standardized patient) 2. Physical examination of a patient with respiratory pathology (hybrid - standardized patient + simulator) 3. Interpretation of laboratory and visualizing diagnostic changes in pathology of the respiratory system	1. Community acquired pneumonia – syndrome oflung infiltration-typical pneumonia 2. Community acquired pneumonia – atypical pneumonia 3. Bronchial asthma 4. COPD –chronic respiratory failure and emphysema 5. Influenza - bronchitis
Pathology of cardio-vascular system	4. History taking from a patient with cardio-vascular pathology (standardized patient) 5. Physical examination of a patient with cardio-vascular pathology (hybrid - standardized patient + simulator) 6. Interpretation of laboratory and visualizing diagnostic changes in pathology of the cardio-vascular system	6. Mitral stenosis 7. Aortic insufficiency 8. Ventricular defect 9. Arterial hypertension 10. CHD-CHF 11. KMP- CHF
Emergency care	7. Emergency care – ACS, AH crisis, Asthmatic status	12. ACS 13. Hypertensive crisis 14. Asthmatic status
Pathology of blood	8. History taking from a patient with blood pathology (standardized patient) 9. Interpretation of laboratory and visualizing diagnostic changes in pathology of the blood system	15. IDA – syndrome of anaemia and sideropenia 16. B12 vitamin deficiency anemia 17. Hemorrhagic vasculitis 18. Immune thrombocytopenia – hemorrhagic syndrome 19. Acute leukemia

Pathology of digestive system and liver	10. History taking from a patient with pathologyof digestive system and liver (standardized patient) 11. Physical examination of a patient with pathology of digestive system and liver (hybrid - standardized patient + simulator) 12. Interpretation of laboratory and visualizing diagnostic changes in the pathology of digestive system and liver	20. H.pylori associated gastritisand ulcer 21. GERD 22. Chronic pancreatitis 23. Chronic hepatitis C 24. Duodenal ulcer 25. Dysentery 26. Liver cirrhosis – moderate progressive – sub compensative form
Pathology of urinary system	13. History taking from a patient with pathologyof urine system (standardized patient) 14. Interpretation of laboratory and visualizing diagnostic changes in pathology of the urinary system	27. Acute poststreptococcal glomerulonephritis – nephritic syndrome 28. Nephrotic syndrome 29. Chronic kidney failure (CKD) 30. Proteinuria

Route of Exam

Stage 1 – computer testing in Startexam system.

Each student will be asked to answer 150 test questions. The time for each question is 2 minutes.

Testing will be carried out in 3 runs of 50 tests according to the schedule for each group.

Stage 2 - OSCE (Objective Structured Clinical Exam) at the simulation center - 14 stations

Each student must go through 14 stations, each station takes 10-15

minutes. Task at each station based on clinical cases (according to the

matrix above)

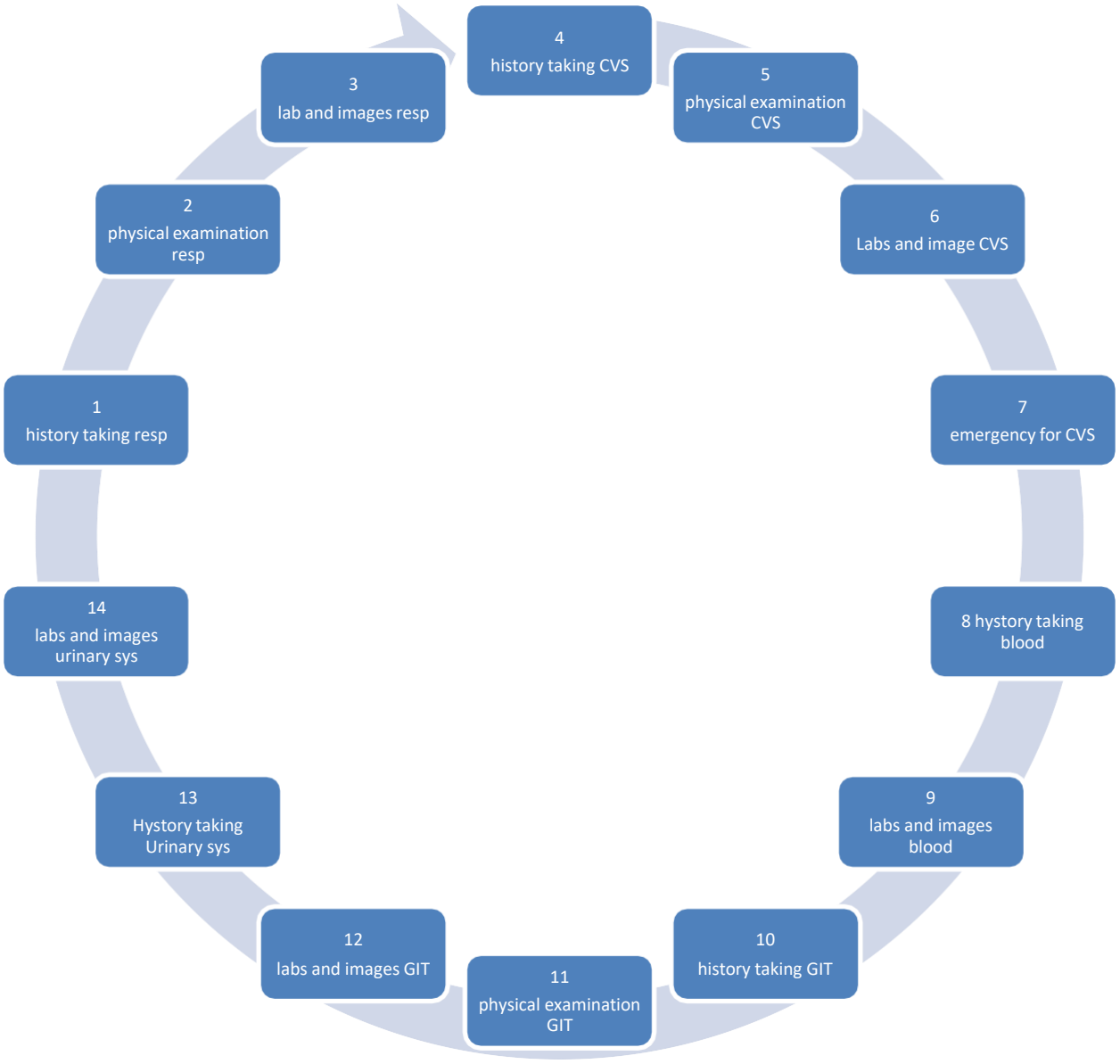
Stations 1, 4, 8, 10, 13 - "History taking" - are additionally included in the assessment in the disciplines "Kazakh / Russian professional language in medicine" and - "English professional language in medicine" as the 2nd stage of the exam in these disciplines.

Station " History taking " - students must demonstrate the skills of collecting anamnesis and effective communication with the patient or his relatives, managing the process of conversation with a patient, interpreting the data obtained, identifying the leading syndrome. The role of the patient is played by an actor - a standardized patient (volunteer).

Station "Physical examination" - students must demonstrate the skills of physical examination (general inspection, palpation, percussion and auscultation) with a certain pathology (according to the matrix above). General inspection, palpation, percussion skills should be demonstrated on volunteer Auscultation skills should be demonstrated on a simulator. In the end student must identify and interpret (explain) finds.

Station "Interpretation of laboratory and visualizing diagnostic changes" - students must demonstrate the skills of interpreting the results of laboratory and visualizing images (CBC, Serum studies – biochemical tests, ABG and electrolytes, immunology tests (ELISA), pleural fluid analysis, X ray, CT, MRI, spirograph, ECG, echocardiography, sonography, endoscopy, biopsy, smear and etc.) At this station, students will be provided with forms with test results, X-ray pictures. sonography, ECG films, etc. The student must comment on the revealed violations and formulate a conclusion.

The set of tasks at each station is unique for each student and is not repeated


4
history taking CVS
5
physical examination CVS
6
Labs and image CVS
7
emergency for CVS
8 hystory taking blood
9
labs and images blood
10
history taking GIT
11
physical examination GIT
12
labs and images GIT
13
Hystory taking Urinary sys
14
labs and images urinary sys
1
history taking resp
2
physical examination resp
3
lab and images resp