

<p> ONTUSTIK-QAZAQSTAN  <b>MEDISINA</b>  <b>AKADEMIASY</b>  «Оңтүстік Қазақстан медицина академиясы» АҚ </p>		<p> SOUTH KAZAKHSTAN  <b>MEDICAL</b>  <b>ACADEMY</b>  АО «Южно-Казахстанская медицинская академия» </p>
<p> Department of "Propaedeutics of Internal Diseases", "Department of Pathology and Forensic Medicine",  "Department of Pharmacology, Pharmacotherapy and Clinical Pharmacology", "Pediatrics-1",  Department of Biology and Biochemistry" </p>		Page 1 of 3
Guidelines for practical training in the discipline "Digestive and endocrine system in pathology"		

Discipline code: PESP 3215


Name of the discipline: "The digestive and endocrine system in pathology

The name and code of the educational program: 6B10115 "Medicine"

Number of teaching hours/credits: 180 hours (6 credits)

Course and semester of study: 3rd course, V semester

Duration of practical : 48 hours


<p> ONTUSTIK-QAZAQSTAN  <b>MEDISINA</b>  <b>AKADEMIASY</b>  «Оңтүстік Қазақстан медицина академиясы» АҚ </p>		<p>  SOUTH KAZAKHSTAN  <b>MEDICAL</b>  <b>ACADEMY</b>  АО «Южно-Казахстанская медицинская академия» </p>
<p> Department of "Propaedeutics of Internal Diseases", "Department of Pathology and Forensic Medicine",  "Department of Pharmacology, Pharmacotherapy and Clinical Pharmacology", "Pediatrics-1",  Department of Biology and Biochemistry" </p>		Page 1 of 3
<p>Guidelines for practical training in the discipline "Digestive and endocrine system in pathology"</p>		

Methodical instructions for practical sessions have been developed in accordance with the working curriculum (syllabus) of the discipline "Gastrointestinal and Endocrine System in Pathology" and discussed at the department meeting.

Protocol № 10 from "31" 05 2024

Head of the Department, d. m.s professor Bekmurzaeva E.K.

*Eker*

<p> ONTÜSTIK-QAZAQSTAN  MEDISINA  AKADEMIASY  «Оңтүстік Қазақстан медицина академиясы» АҚ </p>			 <p> SOUTH KAZAKHSTAN  MEDICAL  ACADEMY  АО «Южно-Казахстанская медицинская академия» </p>
Department of "Propaedeutics of Internal Diseases", "Department of Pathology and Forensic Medicine", "Department of Pharmacology, Pharmacotherapy and Clinical Pharmacology", "Pediatrics-1", Department of Biology and Biochemistry"			Page 1 of 3
Guidelines for practical training in the discipline "Digestive and endocrine system in pathology"			

## ***Department of Propaedeutics of Internal Diseases***

### **Practical Session № 1**

1. Topic: Complaints, questioning, general examination, methods of examining patients with gastrointestinal and hepatobiliary pathology. Diagnostic significance. General examination of the oral cavity, assessment of obtained data. Examination and clinical characteristics of the abdomen. Technique and technique of superficial palpation of the abdomen according to the Obraztsov-Strazhesko method. Technique and technique of deep palpation of the abdomen according to the Obraztsov-Strazhesko method. Technique and technique for determining the lower border of the stomach. Technique and technique of percussion of the abdomen to determine free fluid in the abdominal cavity. Technique of questioning patients with liver disease. Technique and technique of liver percussion according to Kurov. Technique and technique of liver palpation.

2. Goal: Train students in the principles of examining patients with diseases of the digestive and hepatobiliary systems (complaints, questioning, general examination, features of medical and life history, superficial and deep palpation of the abdomen, liver palpation and percussion).


3. Learning objectives:

The student should know:

1. The morphofunctional characteristics of the pharynx, esophagus, stomach, and intestines.
2. Physiology of digestion.
3. Composition and properties of gastric juice.
4. Morphofunctional characteristics of the hepatobiliary system.
5. Physiology and histology of the liver.
6. Bile formation.

The learner must be able to:

1. Properly formulate questions during the collection of patient complaints and medical history.
2. Establish a trusting relationship with patients.
3. Assess the characteristics of the general condition of a patient with gastrointestinal tract pathology and hepatobiliary system.
4. Main questions of the topic:
  1. What are the main complaints of patients with diseases of the digestive system?
  2. What is ascites?
  3. What types of abdominal palpation do you know?
  4. How is deep abdominal palpation performed?
  5. What information does deep palpation of the abdomen provide?
  6. What information does percussion of the stomach and intestines provide?
  7. What are the main complaints of patients with hepatobiliary diseases?
  8. What is jaundice?
  9. What changes are determined during the examination of the skin?

<p> ONTÜSTIK-QAZAQSTAN  MEDISINA  AKADEMIASY  «Оңтүстік Қазақстан медицина академиясы» АҚ </p>			 <p> SOUTH KAZAKHSTAN  MEDICAL  ACADEMY  АО «Южно-Казахстанская медицинская академия» </p>
Department of "Propaedeutics of Internal Diseases", "Department of Pathology and Forensic Medicine", "Department of Pharmacology, Pharmacotherapy and Clinical Pharmacology", "Pediatrics-1", Department of Biology and Biochemistry"			Page 1 of 3
Guidelines for practical training in the discipline "Digestive and endocrine system in pathology"			

10. How is liver palpation conducted?

What is the exocrine activity of the pancreas?

How is the liver size determined according to Kurov's method?

What types of dyspepsia do you know?

What is dysphagia?

15. What changes does abdominal auscultation detect?

16. What methods are used to determine ascites?

17. What is the cause of vomiting?

18. What types of jaundice do you know?

What information does liver percussion provide?

How is the liver pigment exchange investigated?

5. Methods/teaching technologies: Discussion of the topic of the practical lesson, solving situational tasks, mastering and performing practical skills.

6. Methods/evaluation technologies: Checklists for oral questioning, evaluation of practical skills. Filling out and defending the student's clinical case history.

7. Literature: (main and additional): indicated on the last page of the syllabus

8. Control:

Test questions:

1. Factor having the least significance when collecting the patient's medical history:

a. weather conditions and predisposition

b. transferred diseases

c. marital status and hereditary

d. harmful habits

E. working conditions and life

2. The patient entered the hospital with complaints of pain in the esophagus. Serious forecast for the complaint of patients with diseases of the esophagus:

a. dysphagia

b. vomiting

c. pain

d. salivation

heartburn

3. A 48-year-old woman complains of pain in the esophagus and stomach, bloating, loose stools, and increased fatigue in the last 15 months. She has lost 18 kg during this period. A serious cause of dysphagia:


a. esophageal neoplasia

b. esophageal stricture due to burn

c. extrinsic pressure on the esophagus

d. esophageal diverticulum

E. inflammation of the esophagus

<p> ONTÜSTIK-QAZAQSTAN  MEDISINA  AKADEMIASY  «Оңтүстік Қазақстан медицина академиясы» АҚ </p>			 <p> SOUTH KAZAKHSTAN  MEDICAL  ACADEMY  АО «Южно-Казахстанская медицинская академия» </p>
<p> Department of "Propaedeutics of Internal Diseases", "Department of Pathology and Forensic Medicine",  "Department of Pharmacology, Pharmacotherapy and Clinical Pharmacology", "Pediatrics-1",  Department of Biology and Biochemistry" </p>			Page 1 of 3
Guidelines for practical training in the discipline "Digestive and endocrine system in pathology"			

4. A woman of 25 years old entered the hospital, with complaints of belching, pain in the esophagus. Dysphagia is more often installed according to an anamnesis in the past:

- a. stricture of the esophagus due to scarring
- b. esophageal neoplasm
- esophageal diverticulum
- chronic atrophic esophagitis

E. The value of anamnestic data is equivalent

5. Suction of the stomach is one of the most frequently carried out diagnostic procedures, mandatory for suspected gastritis, peptic ulcer and many other diseases of the gastrointestinal tract. The scientist proposed the method of gastric sounding:

- a. Kussmaul
- b. G.A. Zakharyin
- C. R. Laennek
- D. L. Auenbroger
- Einthoven

Palpation is based on the tactile sensation arising from the movement and pressure of the fingers or palm of the examining hand. With palpation, the properties of tissues and organs are determined: their position, size, shape, consistency, mobility, topographical relationships, as well as the tenderness of the organ being examined. The method of palpation has been significantly improved:


- a. V.P.Skhdsov N.D. Strazheko
- B. S.P. Botkin
- c. Kussmaul'om
- d. M.Ya.Mudrovym
- E. G.A. Zakharyin

7. A 40 -year -old woman complains of growing weakness, pain in the epigastric region, especially on an empty stomach and at night, constipation, dizziness, dry skin, pain in the heart, not associated with the load. Previously, she was not sick, recently there was an unpleasant conflict at work. To confirm the diagnosis, a diagnostic study is necessary:

- a. Fibrogastroduodenoscopy
- b. Electrocardiography
- c. Sigmoidoscopy
- d. Neurologist consultation
- e. Blood clinical analysis

8. Patient K., 46 years old, visiting a family doctor with complaints of vomiting of acidic contents, belching air after eating, discomfort in the epigastric area, abdominal distension. Pain on palpation was found in the epigastric area. Instrumental examination that needs to be carried out for the patient

- a. Fibrogastroduodenoscopy
- b. Fecal occult blood test

<p> ONTÜSTIK-QAZAQSTAN  <b>MEDISINA</b>  <b>AKADEMIASY</b>  «Оңтүстік Қазақстан медицина академиясы» АҚ </p>			 <p> SOUTH KAZAKHSTAN  <b>MEDICAL</b>  <b>ACADEMY</b>  АО «Южно-Казахстанская медицинская академия» </p>
Department of "Propaedeutics of Internal Diseases", "Department of Pathology and Forensic Medicine", "Department of Pharmacology, Pharmacotherapy and Clinical Pharmacology", "Pediatrics-1", Department of Biology and Biochemistry"			Page 1 of 3
Guidelines for practical training in the discipline "Digestive and endocrine system in pathology"			

Contrast radiography with barium

Ultrasound examination

E. Radonuclide research

9. The patient suffers from chronic pancreatitis for 15 years. The simplest way to detect calcinosis of the pancreas:

a. X-ray examination

b. laparotomy

laparoscopy

irrigoscopy

e. cholangiography

10. Patient K., 40 years old, a family doctor diagnosed "The first detected ulcer of the 12-peremillance onion". The leading method of examining the patient:

a. Gastroscopy with biopsy

b. Complete blood count

g. analysis of gastric juice

h. stool test for hidden blood

E. duodenal sounding

11. The percussion dimensions of the liver in healthy individuals of normosthenic physique:

a. 9 x 8 x 7 cm

b. 10 x 9 x 8 cm

c. 7 x 8 x 9 cm

d. 12 x 10 x 8 cm

e. 8 x 6 x 4 cm

12. Percussional liver size in atrophic liver cirrhosis:

a. 8 x 6 x 4 cm

b. 9 x 8 x 7 cm

c. 9 x 8 x 9 cm

d. 12 x 10 x 8 cm

E. 10 x 9 x 8 cm

13. Percutal dimensions of the liver for hepatomegaly:

a. 15 x 12 x 10 cm

b. 9 x 8 x 7 cm

c. 7 x 8 x 9 cm

d. 8 x 6 x 4 cm

E. 12 x 10 x 8 cm

14. Auscultation of the liver is valuable in the presence of:

a. liver hemangioma

b. liver cirrhosis

c. cholecystitis

d. liver abscess

<p> ONTUSTIK-QAZAQSTAN  <b>MEDISINA</b>  <b>AKADEMIASY</b>  «Оңтүстік Қазақстан медицина академиясы» АҚ </p>			<p> SOUTH KAZAKHSTAN  <b>MEDICAL</b>  <b>ACADEMY</b>  АО «Южно-Казахстанская медицинская академия» </p>
<p> Department of "Propaedeutics of Internal Diseases", "Department of Pathology and Forensic Medicine",  "Department of Pharmacology, Pharmacotherapy and Clinical Pharmacology", "Pediatrics-1",  Department of Biology and Biochemistry" </p>			Page 1 of 3
Guidelines for practical training in the discipline "Digestive and endocrine system in pathology"			

## E. liver cysts

15. To determine the function of the liver in the synthesis of protein, use:

- Suleimah test, Veltman strip
- Primary phosphatase
- Cholesterol, beta-lipoprotein
- Transaminase, aldolase lactate dehydrogenase
- Kvyka-Pytel test

16. To determine the excretory function of the liver, the following are used:

- Main phosphotase
- Sulma test, Veltman strip
- Cholesterol, beta-lipoprotein

Transaminase, aldolase, lactate dehydrogenase

Test Kvyka-Pytel

Enzyme function of the liver is determined using:

- Main phosphotase
- Transaminase, aldolase, lactate dehydrogenase

Sulem test, Vel'tman tape

Cholesterol, beta-lipoprotein

- Kvyka-Pytel test

18. Indicator reflecting the lipolipoid function of the liver:

- cholesterol, beta-lipoproteins
- alkaline phosphatase
- Schlemm's test, Veltman's band
- transaminases, aldolases, lactate dehydrogenases
- benzoin 酸钠试验 (Quick – Pityal)

19. Research method of the liver allowing to determine morphological changes in it:


- needle biopsy
- laparoscopy
- Ultrasound of the liver
- Radioisotope
- Sight radiograph

20. A more informative method for studying the liver in the presence of diffuse or focal lesions in it:

- radioisotope
  - puncture biopsy
  - Ultrasound of the liver
  - Laparoscopy
- overview X-ray

## Practical Session № 2



<p style="text-align: center;"> <small>ОҢТҮСТІК-ҚАЗАҚСТАН</small>  <b>MEDISINA</b>  <b>AKADEMIASY</b>  <small>«Оңтүстік Қазақстан медицина академиясы» АҚ</small> </p>			<p style="text-align: center;">   <small>1979</small>  <b>SOUTH KAZAKHSTAN</b>  <b>MEDICAL</b>  <b>ACADEMY</b>  <small>АО «Южно-Казахстанская медицинская академия»</small> </p>
<p>Department of "Propaedeutics of Internal Diseases", "Department of Pathology and Forensic Medicine",  "Department of Pharmacology, Pharmacotherapy and Clinical Pharmacology", "Pediatrics-1",  Department of Biology and Biochemistry"</p>			Page 1 of 3
Guidelines for practical training in the discipline "Digestive and endocrine system in pathology"			

1. Topic: Leading clinical syndromes (gastric and intestinal dyspepsia, jaundice, and liver insufficiency) in gastroenterology. Diagnostic significance.

(Predisposing factors and causes leading to the development of the syndrome of gastric and intestinal dyspepsia, the syndrome of jaundice and liver insufficiency. Clinical characteristics).

2. Objective: Familiarize with the leading clinical syndromes of gastrointestinal diseases: intestinal and gastric dyspepsia; and the leading clinical syndromes of the hepatobiliary system: jaundice and liver insufficiency; master the clinical signs and learn the basics of diagnosis, familiarize with laboratory and instrumental research methods, and provide diagnostic interpretations.

3. Learning objectives:

The student should know:

1. The mechanism of development of the leading syndromes of gastrointestinal diseases.
2. The main complaints of patients with gastric and intestinal dyspepsia syndrome.
3. The reasons for the development of dysphagia syndrome.
4. The development mechanism of leading syndromes of diseases of the hepatobiliary system.
5. The main complaints of patients with syndromes of diseases of the hepatobiliary system.
6. Causes of the development of liver failure syndrome.

The student should be able to:

1. Conduct a question of patients with gastric and intestinal dyspepsia syndromes.
2. Conduct a general examination of the patient and identify changes in the general status characteristic of the syndrome of intestinal dyspepsia.
3. Conduct a physical examination of patients with gastric and intestinal dyspepsia.
4. Conduct an interview with patients with symptoms of hepatobiliary system diseases.
5. Conduct a general examination of the patient and identify changes in the general status characteristic of intestinal dyspepsia.
6. Conduct a physical examination of patients with jaundice syndrome.

4. Main topics questions:

1. What predisposing factors do you know that lead to the development of dysphagia?
2. What complaints do patients with gastrointestinal dyspepsia have?
3. What palpable changes can be detected in the intestinal syndrome?  
gastritis?

4. What is malabsorption syndrome?


What are the known reasons for the development of malabsorption syndrome?

What laboratory and instrumental methods of research are used for diagnostics of the hepatobiliary system?

7. What predisposing factors do you know that lead to the development of jaundice syndrome?

8. What complaints do patients with portal hypertension syndrome report?



<p> ONTUSTIK-QAZAQSTAN  MEDISINA  AKADEMIASY  «Оңтүстік Қазақстан медицина академиясы» АҚ </p>			 <p> SOUTH KAZAKHSTAN  MEDICAL  ACADEMY  АО «Южно-Казахстанская медицинская академия» </p>
<p> Department of "Propaedeutics of Internal Diseases", "Department of Pathology and Forensic Medicine",  "Department of Pharmacology, Pharmacotherapy and Clinical Pharmacology", "Pediatrics-1",  Department of Biology and Biochemistry" </p>			Page 1 of 3
Guidelines for practical training in the discipline "Digestive and endocrine system in pathology"			

9. What palpable changes can be detected in liver syndrome?

Deficiency?

What is jaundice syndrome?

11. What are the known reasons for the development of primary and secondary liver damage?

12. What laboratory and instrumental research methods are used for

Diagnosis of jaundice syndrome?

5. Methods/teaching technologies: Discussion of the topic of the practical session, solving situational tasks, mastering and performing practical skills.

6. Methods/assessment technologies: a checklist of an oral survey, evaluating practical skills. Filling and protecting the educational medical history

7. Literature (basic and additional): indicated in the last page of Syllabus

8. Control:

Questions:

1. What objective features do you know are characteristic of the gastric syndrome?

What are the characteristic objective features of dyspepsia?

2. What palpation changes can be detected in cases of gastric dyspepsia?

3. What auscultatory changes can be detected in cases of intestinal dyspepsia?

4. What percussion changes can be detected in intestinal dyspepsia?

5. What predisposing factors do you know that lead to the development of gastric and intestinal dyspepsia?

6. What objective characteristics do you know that are characteristic of jaundice syndrome?

7. What palpable changes can be detected in chronic liver damage?

8. What palpable changes can be detected in chronic non-calculous cholecystitis?

What is the hepatolienal syndrome?


What predisposing factors do you know that lead to the development of liver failure?

Situational tasks:

1. A man of 34 years old complains of pain in the epigastric region, which occur 1.5-2 hours after eating, as well as at night; Teenage to constipation. A year ago, the course of peptic ulcer was complicated by perforation. Localization of ulcers is most likely:

2. A 27-year-old man complains of epigastric pain that occurs 1.5-2 hours after eating, "night" pain; belching sour, nausea. Objective: low nutrition, moist tongue, coated with white fur at the root, pain upon palpation in the epigastric area. Please indicate the most informative method of investigation:

3. A 53-year-old man with a history of alcohol abuse was admitted with bleeding from varicose veins of the esophagus. A week ago, he developed pain in the right hypochondrium and developed jaundice. Objective: jaundiced skin and sclerae, telangiectasias. Abdomen is distended. The liver protrudes 3 cm below the costal arch, it is firm and painful.

<p style="text-align: center;"> <small>ОҢТҮСТІК-ҚАЗАҚСТАН</small>  <b>MEDISINA</b>  <b>AKADEMIASY</b>  <small>«Оңтүстік Қазақстан медицина академиясы» АҚ</small> </p>			<p style="text-align: center;">   <small>1979</small>  <b>SKMA</b> </p>	<p style="text-align: center;"> <small>SOUTH KAZAKHSTAN</small>  <b>MEDICAL</b>  <b>ACADEMY</b>  <small>АО «Южно-Казахстанская медицинская академия»</small> </p>
<p>Department of "Propaedeutics of Internal Diseases", "Department of Pathology and Forensic Medicine",  "Department of Pharmacology, Pharmacotherapy and Clinical Pharmacology", "Pediatrics-1",  Department of Biology and Biochemistry"</p>			Page 1 of 3	
Guidelines for practical training in the discipline "Digestive and endocrine system in pathology"				

Splenomegaly. In the blood: anemia, thrombocytopenia, ESR-36 mm/h. Total bilirubin 56  $\mu\text{mol/l}$ , direct fraction – 12.2  $\mu\text{mol/l}$ . The most likely diagnosis is:

4. A 52 -year -old patient appealed against weakness, nausea, insomnia at night and drowsiness during the day, an increase in the abdomen, pain in the right hypochondrium. The pain intensifies after taking fat and spicy foods, accompanied by liquid stool. The edge of the liver by 6 cm protrudes from under the costal arc, dense, painful with palpation. The spleen is not palpated, dimensions are 10x12 cm. Percussion - dulling in the bottom of the abdomen. Your preliminary diagnosis:

### Practical lesson № 3

1. Topic: Methods of research in patients with endocrine system pathology. Diagnostic significance. Palpation of the thyroid and pancreas glands.

(Examination, complaints, general examination of patients with endocrine system pathology. Characteristics of the disease history and patient's life. Pathological symptoms detected in patients with endocrine system damage. Diagnostic significance. Palpation of the thyroid and pancreas glands: determination of Schöffner's, Gubergриц-Skulski's, painful points: Dédéran, Gubergриц, Mayo-Robson's areas).

2. Objective: To train students in the principles of examining patients with diseases of the endocrine system (complaints, questioning, general examination, characteristics of the medical history of life and illness, thyroid gland palpation, pancreas palpation: determination of Schöffner's area, Gubergrits-Skulsky, pain points: Dédéran, Gubergrits, Mayo-Robson).

3. Learning objectives:

The student should know:

1. Anatomical and physiological structure of the endocrine system organs.
2. Histophysiology of endocrine organs.
3. Basic functions of the glands of the endocrine system.

The student should be able to:

1. Formulate questions correctly when collecting complaints and medical history.
2. Establish a trusting relationship with patients.
3. Assess the peculiarities of the patient's overall condition with endocrine system pathology.

4. Main issues of the topic:

1. What are the main complaints of patients with endocrine system diseases that you know?
2. What are the main objective changes you know about diseases of the endocrine system?
3. What information does palpation of the thyroid gland provide?
4. How is the thyroid gland palpation conducted?
5. What laboratory tests are used for diagnosis?
6. What is the hypothalamo-hypophyseal system?

<p> ONTÜSTIK-QAZAQSTAN  <b>MEDISINA</b>  <b>AKADEMIASY</b>  «Оңтүстік Қазақстан медицина академиясы» АҚ </p>			<p> SOUTH KAZAKHSTAN  <b>MEDICAL</b>  <b>ACADEMY</b>  АО «Южно-Казахстанская медицинская академия» </p>
<p> Department of "Propaedeutics of Internal Diseases", "Department of Pathology and Forensic Medicine",  "Department of Pharmacology, Pharmacotherapy and Clinical Pharmacology", "Pediatrics-1",  Department of Biology and Biochemistry" </p>		<p>Page 1 of 3</p>	
<p>Guidelines for practical training in the discipline "Digestive and endocrine system in pathology"</p>			


7. What information does the palpation of the pancreas provide?
8. How is the pancreas palpation performed?
9. Identify Djerardens, Hubergries, Mayo-Robson pain points and Schoffar, Hubergries-Skulski zones.
5. Teaching and learning methods/technologies: Discussion of the topic of the practical session, solving situational tasks, mastering and performing practical skills.
6. Assessment methods/technologies: Checklists for oral questioning, assessment of practical skills. Filling out and defending the student's medical history.
7. Literature: (main and additional): indicated on the last page of the syllabus
8. Control:

#### Questions:

1. What are the known reasons for the development of endocrine system diseases?
2. What function do the adrenal glands perform?
3. What function does the endocrine part of the pancreas perform?
4. What laboratory-instrumental methods are used for the diagnosis of endocrine system pathology?
5. What risk factors for thyroid gland diseases do you know?

#### Test questions:

1. Common methods of thyroid gland palpation:
  - a. 3 ways
  - b. 1 way
  - 4 ways
  - 2 ways
  - not palpable
2. With goiter, percussion over the handle indicates:
  - a. shortening of the percussion sound
  - b. weakening of the percussion sound
  - c. Dumpling percussion sound
  - D. Stupid percussion sound
  - clear percussive sound
3. Pancreatic endocrine diseases include:
  - type 1 diabetes
  - Ikaryushenko-Cushing's
  - c. gypotyroid, gipertyroid
  - D. Chronic pancreatitis
  - e. obesity
4. What is a person's daily need for iodine:
  - a. 100 micrograms
  - b. 50 micrograms
  - c. 150 micrograms

<p> ONTUSTIK-QAZAQSTAN  <b>MEDISINA</b>  <b>AKADEMIASY</b>  «Оңтүстік Қазақстан медицина академиясы» АҚ </p>			 <p> SOUTH KAZAKHSTAN  <b>MEDICAL</b>  <b>ACADEMY</b>  АО «Южно-Казахстанская медицинская академия» </p>
Department of "Propaedeutics of Internal Diseases", "Department of Pathology and Forensic Medicine", "Department of Pharmacology, Pharmacotherapy and Clinical Pharmacology", "Pediatrics-1", Department of Biology and Biochemistry"		Page 1 of 3	
Guidelines for practical training in the discipline "Digestive and endocrine system in pathology"			

d. 250 micrograms

E. 1000 M.G.

5. Generations that are not related to the endocrine system:

a. stomach and intestinal glands

b. thyroid gland

c. pituitary gland

d. reproductive glands

e. pancreas

6. Endocrine glands produce:

a. hormone

B. Holinolitics

c. sympatholytics

d. beta-blockers

angiotensin-converting enzyme inhibitors

7. Endocrine glands secrete into:

a. blood and lymph

b. bile

C. stomach

D. Pancreas

E. Sweet glands

8. The imbalance of fat metabolism:

a. Cushing's disease

b. hypofunction of the sex glands

Syndrome of Simmonds

abuse of fatty foods

genital organ dystrophy

9. Blood sugar level in a healthy person mmol/l:

a. 5,6-7,5

b. 3,3-5,5

c. 4,4-6,0

d. 2,2-3,2

and. 6.0-8.0

10. The thyroid gland produces:


a. T3, T4, TTG

b. enzymes

c. 17-OXSD7-KS

d. insulin

ACTH

<p style="text-align: center;"> <small>ОҢТҮСТІК-ҚАЗАҚСТАН</small>  <b>MEDISINA</b>  <b>AKADEMIASY</b>  <small>«Оңтүстік Қазақстан медицина академиясы» АҚ</small> </p>			<p style="text-align: center;">   <small>1979</small>  <b>SOUTH KAZAKHSTAN</b>  <b>MEDICAL</b>  <b>ACADEMY</b>  <small>АО «Южно-Казахстанская медицинская академия»</small> </p>
<p>Department of "Propaedeutics of Internal Diseases", "Department of Pathology and Forensic Medicine",  "Department of Pharmacology, Pharmacotherapy and Clinical Pharmacology", "Pediatrics-1",  Department of Biology and Biochemistry"</p>			Page 1 of 3
Guidelines for practical training in the discipline "Digestive and endocrine system in pathology"			

## Practical Session № 4

1. Topic: Leading clinical syndromes (hypothyroidism – hyperthyroidism, hypoglycemia – hyperglycemia) in endocrinology. Diagnostic significance. (Predisposing factors and causes leading to the development of hypothyroidism – hyperthyroidism, hypoglycemia – hyperglycemia. Clinical features).

2. Objective: Familiarize with the leading clinical syndromes of hypothyroidism – hyperthyroidism, hypoglycemia – hyperglycemia, master the causes, predisposing factors, clinical signs, and learn the basics of diagnosis. Familiarize with laboratory and instrumental research methods, and provide them with a diagnostic interpretation.

3. Learning objectives:

The student should know:

1. Mechanism of the development of hyperthyroidism syndrome
2. Main complaints of patients with hypothyroidism syndrome
3. Causes of the development of hypothyroidism syndrome
4. Mechanism of the development of hyperglycemia syndrome
5. Main complaints of patients with hypoglycemia syndrome
6. Causes of the development of hypoglycemia syndrome

The student should be able to:

1. Conduct an interview with patients with hyperthyroidism syndrome
2. Conduct a general examination of the patient and identify changes in the general status characteristic of hypothyroidism syndrome.
3. Conduct a physical examination of patients with hypothyroidism syndrome
4. Conduct an interview with patients with hyperglycemia syndrome
5. Conduct a general examination of the patient and identify changes in the general status characteristic of hypoglycemic syndrome.
6. Conduct a physical examination of patients with hypoglycemic syndrome

4. Main questions of the topic:

1. What predisposing factors do you know that lead to the development of hyperthyroidism syndrome
2. What complaints do patients with the diagnosis of diffuse-toxic goiter present
3. What palpable changes can be detected in hyperfunction of the thyroid gland
4. What complications of diffuse goiter do you know
5. What objective changes do you know about thyrotoxic crisis
6. What laboratory-instrumental methods of research are used for the diagnosis of hypoglycemia syndromes
7. What predisposing factors do you know that lead to the development of hyperglycemia syndrome?
8. What complaints do patients with diabetes present?
9. What palpable changes can be detected in type 2 diabetes?

<p> ONTÜSTIK-QAZAQSTAN  MEDISINA  AKADEMIASY  «Оңтүстік Қазақстан медицина академиясы» АҚ </p>			<p> SOUTH KAZAKHSTAN  MEDICAL  ACADEMY  АО «Южно-Казахстанская медицинская академия» </p>
<p> Department of "Propaedeutics of Internal Diseases", "Department of Pathology and Forensic Medicine",  "Department of Pharmacology, Pharmacotherapy and Clinical Pharmacology", "Pediatrics-1",  Department of Biology and Biochemistry" </p>			Page 1 of 3
Guidelines for practical training in the discipline "Digestive and endocrine system in pathology"			

10. What complications of diabetes do you know
11. What objective changes do you know about lower limb macroangiopathy?
12. What laboratory-instrumental methods of research are used for the diagnosis of hypothyroidism syndromes?

5. Teaching and learning methods/technologies: Discussion of the topic of the practical session, solving situational tasks, mastering and performing practical skills.
6. Assessment methods/technologies: Checklists for oral questioning, assessment of practical skills. Filling out and defending the student's medical history.
7. Literature: (main and supplementary): indicated on the last page of the syllabus
8. Control (questions, tests, tasks, etc.):

#### Questions:

1. What cardiovascular system syndromes do you know about in hyperthyroidism
2. How does hypothyroid coma manifest
3. What is myxedema
4. What is Hashimoto's thyroiditis
5. What predisposing factors are known to lead to the development of hypothyroidism syndrome
6. What forms of hypoglycemia do you know?
7. What types of diabetes do you know?

What is glucose tolerance violation


What is diabetic nephropathy

10. What predisposing factors do you know that lead to the development of hypoglycemia

#### Situational tasks:

1. A neuroendocrine disease caused by chronic excessive secretion of growth hormone, occurring in children and adolescents with incomplete physiological growth, characterized by proportional growth of the skeleton's bones in length, leading to a significant increase in the subject's height – this is...
2. Patient O, 45 years old, complains of enlargement of facial features, hands, and feet, prolonged headaches, and nocturnal apnea. Five years have passed since the appearance of the first symptoms of the disease. Objective findings: enlargement of the nose, lips, tongue, skin thickening, increased eyebrows, increased upper and lower jaws, widened interdental spaces, increased limbs. Blood pressure: 160/90 mmHg. Probable diagnosis:
3. A 48-year-old patient enters in stationary treatment. Makes complaints about dry mouth, thirst (drinks up to 5 liters per day), frequent abundant urination, weakness. I got sick recently, but knows that under diabetes, under any circumstances, you can't eat sweet. It is worried that it may have to live on injections. Consciousness is clear. Height 178 cm, weight 75 kg. The skin is pale, dry. On the mucous membrane of the lower lip crack. Pulse 88 beats



<p> ONTÜSTIK-QAZAQSTAN  <b>MEDISINA</b>  <b>AKADEMIASY</b>  «Оңтүстік Қазақстан медицина академиясы» АҚ </p>			 <p> SOUTH KAZAKHSTAN  <b>MEDICAL</b>  <b>ACADEMY</b>  АО «Южно-Казахстанская медицинская академия» </p>
Department of "Propaedeutics of Internal Diseases", "Department of Pathology and Forensic Medicine", "Department of Pharmacology, Pharmacotherapy and Clinical Pharmacology", "Pediatrics-1", Department of Biology and Biochemistry"			Page 1 of 3
Guidelines for practical training in the discipline "Digestive and endocrine system in pathology"			

at 1 minute, satisfactory filling, blood pressure 120/80 mm. RT. Art., breathing frequency 18 in 1 minute.

4. The patient 36 years old entered the hospital. Makes complaints about increased appetite, thirst, polyuria, severe skin itching, which does not allow you to fall asleep at night. He knows the principles of diet nutrition in diabetes, but often violates the diet, as it cannot resist. The behavior is restless, irritable due to skin itching. The skin of the flesh -colored, dry with numerous traces of combs, nails in untidy condition, overgrown. Pulse 78 beats at 1 minute, rhythmic, blood pressure 120/80 mm. RT. Art., breathing frequency of 18 in 1 minute, body temperature 36.8 C. Height 168 cm, body weight 60 kg.