MINISTRY OF HEALTH OF UKRAINE

ODESA NATIONAL MEDICAL UNIVERSITY

Faculty: medical №1
Department of propaedeutics of internal diseases and therapy

APPROVED BY.

Vice-rector for scientific and pedagogical work

_____ Eduard BURIACHKIVSKYI

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METHODOLOGICAL DEVELOPMENT
FOR PRACTICAL CLASSES IN THE DISCIPLINE

Faculty, course: dentistry, 3
Discipline: Endocrinology

Approved:
Meeting of the Department of Propedeutics of Internal Medicine and Therapy
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Head of the Department _____ Olena YAKYMENKO

Authors:
Head of the department, Doctor in Medicine, Professor Yakimenko Olena
Doctor in Medicine, Associate Professor Sebov Denis
PhD of Medicine, Assistant Professor Oliynyk Dmytro
PhD of Medicine, Assistant Professor Maznichenko Iegor
Assistant Professor Zakrytov Denis

Practical lesson No. 1
Topic: Diabetes. Modern classification. Etiology, pathogenesis, clinic. National program "Diabetes".

Purpose: Acquisition of knowledge and mastery of professional competences during the examination of a patient with diabetes. To form an idea about the etiology, clinical features and pathogenesis of diabetes. Master the main methods of research on diabetes patients; know the principles of treatment. Master the skills of assessing laboratory indicators of diabetes. Be able to draw up a plan for the examination of patients with diabetes.

Basic concepts: diabetes, glycemia, insulin, insulin receptors, glucose transport.
Equipment: a laptop with a presentation, a multimedia projector, individual tasks on the topic of a practical lesson:
1. Organizational measures (greetings, verification of those present, announcement of the topic, purpose of the lesson, motivation of higher education seekers to study the topic).
2. Control of the reference level of knowledge (written work, written test, frontal survey, etc.) (if necessary):
1. On the basis of complaints, anamnesis and physical examination, identify the presence of the main syndromes of type 2 diabetes.
2. Establish a preliminary diagnosis.
3. Draw up a patient examination plan and interpret the results of instrumental and laboratory research.
4. Carry out differential diagnosis using diagnostic algorithms.
5. Diagnose the main chronic complications of diabetes.
6. Formulate the final diagnosis.

2.2. Questions to check basic knowledge on the topic of the lesson:
question:
1. Define the concept of diabetes.
2. Complaints of the patient about diabetes.
3. Specify the main etiological factors, features of pathogenesis.
4. Modern classification of diabetes.
5. The main clinical signs classification of diabetes.
6. Laboratory and instrumental examination of patients, interpretation of the obtained results.
7. Basic principles of treatment.

3. Formation of professional skills and abilities:
Task 1.

From the medical history of patient K., 57 years old, suffering from type II diabetes, it is known that she was born with a body weight of 4100 g and was on artificial feeding. The mother suffers from type II diabetes. During the last two years, he notes an increase in blood pressure and the appearance of protein in the urine. Objectively: the condition is satisfactory. Excess nutrition. The skin is wet. The activity of the heart is rhythmic, the accent of the II tone on the aorta, blood pressure 160/90 mm Hg, heart rate 80 per minute. Daily proteinuria 0.9 g.

What information from the anamnesis is relevant to diabetes?

A. Maternal illness, artificial feeding, body weight at birth.

B. Artificial feeding, body weight at birth, increased blood pressure.

C. Body weight at birth, artificial feeding, protein in urine.

D. Mother's illness, patient's age, arterial hypertension.

E. Artificial feeding, arterial hypertension, protein in urine.

Task 2.

A 26-year-old man complains of thirst, increased urination, general weakness, and weight loss. Objectively: dry skin, red cheeks, vesicular breathing. Tones of the heart are sonorous. The tongue is dry. There are no symptoms of peritoneal irritation. Which study is most informative for establishing a diagnosis?

A.+Analysis of blood for glucose.

B. General blood analysis.

S. General analysis of urine.

D. Analysis of urine according to Zimnytskyi.

E. Blood analysis for liver samples.

Task 3.

A 53-year-old woman developed skin itching after a mental trauma. Height - 167 cm, weight - 89 kg. Fasting blood glucose - 8.1 mmol/l. What is the most likely diagnosis?

A. Type 1 diabetes.

B.+Diabetes, type 2.

C. Violation of glucose tolerance.

D. Steroid diabetes.

E. Neurodermatitis.

Task 4.

A woman, 45 years old, with obesity of the 1st century. fasting glycemia was found to be 10 mmol/l, after eating -14.8 mmol/l, glucosuria 3%, acetone in the urine was absent. The patient's brother suffers from diabetes. What type of diabetes does the

patient have:
A. Hereditary diabetes;
B. Type 1 diabetes;
C. Type 2 diabetes;
D. Diabetes associated with disease of the exocrine part of the pancreas;
E. Diabetes associated with endocrinopathies

Task 5.
The patient, 66 years old, complains of thirst, weight loss, headache. He has been on a diet for 12 years and has not taken any medication for diabetes. I lost 8 kg in the last 5 months. Prescribed insulin. Objectively: height - 180 cm, weight - 72 kg, swollen legs. The liver is 3 cm below the edge of the costal arch. Blood pressure – 160/100 mmHg, fasting blood glucose – 10 mmol/l, glycated hemoglobin – 12%, total hemoglobin – 100 g/l, erythrocytes – 3.1x1012/l, proteinuria – 1.5 g/day , glucosuria – 2 g/l, there are hyaline cylinders. What is the previous diagnosis:
A. Type 2 diabetes with nephropathy;
B. Type 2 diabetes, insulin edema;
C. Type 1 diabetes with nephropathy;
D. Renal glucosuria;
E. Chronic hepatitis, secondary diabetes

3.2. Requirements for work results, including before registration: substantiation of the syndromic diagnosis based on complaints, medical history and life data, clinical examination.

3.3. Control materials for the final stage of the class: solving two clinical problems on the subject of the class, answering 10 tests (if necessary).

4. Summary, announcement of assessment results, announcement of the topic of the next lesson.

List of recommended literature
Basic literature:
1. Internal diseases: study guide / O. O. Yakymenko, V. V. Klochko, O. E. Kravchuk and others. ; under the editorship Prof. O. O. Yakymenko. — 2nd ed., corrected. and additional — Odesa: ONMedU, 2023. — 436 p.
2. Endocrinology in dental practice: training. manual [for students of higher education. institutions of the Ministry of Health of Ukraine] / edited by L. E. Bobireva, A. K. Nikolishina; L.E. Bobiryova, V.M. Bobiryov, L.P. Gordienko [and others] ; Ministry of Health of Ukraine, UMSA. – Poltava: Publisher S. V. Govorov, 2021. – 176 p.

3. Perederii V.G., Tkach S.M. Basics of internal medicine in 3 volumes. Manual. Vinnitsa. New book. 2018. - 784 p.
4. Davidson's Principles and Practice of Medicine 23rd Edition. Editors: Stuart Ralston, Ian Penman, Mark Strachan Richard Hobson. Elsevier. - 2018. – 1440 p.
5. Endocrinology: textbook /Ed. by prof. Peter M. Bodnar.- 4th ed. updated – Vinnitsa: Nova Knyha, 2017. – 328 pages.

Additional:

1. Endocrinology: a textbook for university students. honey. education closing IV level of accreditation / [P. M. Bodnar, G. P. Mikhalchyshyn, Yu. I. Komisarenko and others] ; under the editorship P. M. Bodnar; National Acad. honey. of Sciences of Ukraine. - 4th ed., updated and supplemented. - Vinnytsia: New book, 2017. - 500 p. : fig. 2.
2. Standards of providing medical assistance to patients with pathological conditions of the thyroid and parathyroid glands under the influence of negative environmental factors (third edition, expanded) / Ed. O.V. Kaminsky - Kharkiv: "Juright", 2017. - 312 p.
3. Order of the Ministry of Health of Ukraine dated December 29, 2014 No. 1021 "Unified clinical protocol of primary, emergency, secondary (specialized) and tertiary (highly specialized) medical care "Type 1 diabetes in young people and adults."
4. Macleod's Clinical Examination / Ed. G.Douglas, F.Nicol, C.Robertson.– 13th ed.– Elsevier. 2013. – 471 p.
5. Bates' Guide to Physical Examination and History Taking /Ed. Lynn S. Bickley, Peter G. Szilagyi. – Wolters Kluwer, 2017. – 1066 p.
6. Harrison's Endocrinology. Ed. by J. Larry Jameson, Mc Graw – Hill., New York, Chicago, Toronto. e.a. 4th edition, 2016. - 608 p.

Electronic information resources

1. http://moz.gov.ua - Ministry of Health of Ukraine
2. www.ama-assn.org – American Medical Association /American Medical Association
3. www.who.int - World Health Organization
4. www.dec.gov.ua/mtd/home/ - State Expert Center of the Ministry of Health of Ukraine
5. http://bma.org.uk – British Medical Association
6. www.gmc-uk.org - General Medical Council (GMC)
7. www.bundesaerztekammer.de – German Medical Association

8. https://onmedu.edu.ua/ - Odesa National Medical University
9. https://onmedu.edu.ua/kafedra/propedevtiki-vnutrishnih-hvorob-ta-terapii/ - Department of propaedeutics of internal diseases and therapyOdessa National Medical University

Practical lesson No. 2
Topic: Type 2 diabetes. Clinic, diagnosis, principles of treatment. Chronic complications of diabetes. Emergency conditions of diabetes.

Purpose: To gain knowledge and master professional competences during the examination of a patient with type 2 diabetes. To form an idea about the etiology, clinical features and pathogenesis of type 2 diabetes. To learn the main methods of research of patients with type 2 diabetes; know the principles of treatment, chronic complications and emergency conditions typical for type 2 diabetes. Master the skills of evaluating laboratory indicators of type 2 diabetes. Be able to draw up a plan for the examination of patients with type 2 diabetes.

Basic concepts: type 2 diabetes, glycemia, insulin, insulin receptors, insulin resistance, coma, microangiopathy, macroangiopathy.
Equipment: a laptop with a presentation, a multimedia projector, individual tasks on the topic of a practical lesson:
1. Organizational measures (greetings, verification of those present, announcement of the topic, purpose of the lesson, motivation of higher education seekers to study the topic).
2. Control of the reference level of knowledge (written work, written test, frontal survey, etc.) (if necessary):
1. On the basis of complaints, anamnesis and physical examination, identify the presence of the main syndromes of type 2 diabetes.
2. On the basis of complaints, anamnesis and physical examination, identify the presence of the main syndromes in macro- and microangiopathies.
3. Establish a preliminary diagnosis.
4. Draw up a patient examination plan and interpret the results of instrumental and laboratory tests.
5. Conduct differential diagnosis using diagnostic algorithms.
6. Diagnose the main chronic complications of diabetes.
7. Diagnose the main comatose states in diabetes.
8. Formulate the final diagnosis.

2.2. Questions to check basic knowledge on the topic of the lesson:
question:
1. Define type 2 diabetes.

2. Complaints of the patient about type 2 diabetes.
3. Specify the main etiological factors, features of pathogenesis.
4. Modern classification of type 2 diabetes.
5. The main clinical signs and classification of type 2 diabetes.
6. Laboratory and instrumental examination of patients, interpretation of the obtained results.
7. Basic principles of treatment.
8. main syndromes in macro- and microangiopathies.
9. Chronic complications of diabetes.
10. Emergency conditions of diabetes.

3. Formation of professional skills and abilities:

1. A 62-year-old woman came to see a gynecologist with complaints of vulva itching. He has been suffering from chronic pancreatitis for 8 years. Increased nutrition, body weight 102 kg, height 158 cm. Palpable inguinal lymph nodes up to 0.8 cm. There are traces of scratching on the skin of the perineum. Blood sugar - 7.8 mmol/l. What is the most likely diagnosis?

A Diabetes mellitus
B Obesity of alimentary origin
C Vulvitis
D Lymphogranulomatosis
E Allergic dermatitis

2. A 38-year-old patient underwent a glucose tolerance test: fasting capillary blood glucose - 5.9 mmol/l, after 2 hours - 8.9 mmol/l. Evaluate the test results:

A Violation of glucose tolerance
B Normal test
C Violation of fasting glycemia
D Doubtful test
E Overt diabetes mellitus

3. A 55-year-old patient was diagnosed with diabetes during a physical examination. Was not treated. Objectively: height - 170 cm, body weight - 106 kg, skin of normal moisture. Ps - 76/min., rhythmic, the left border of the relative dullness of the heart is shifted 1 cm to the left of the midclavicular line, the heart sounds are weakened, BP - 140/80 mm Hg. Fasting glycemia - 6.9 mmol/l. Glucose content in daily urine - 0.5% with a diuresis of 2.5 liters. What is the primary treatment tactic?

A. Prescribe only diet therapy to the patient
B Prescribe metformin
C Prescribe glibenclamide
D Prescribe repaglinide

E Prescribe insulin

4. A 39-year-old patient has been suffering from diabetes for 10 years. The last year has been marked by coldness of the toes, pain and a feeling of numbness. Objectively: the skin of the lower extremities is dry, thin, cold to the touch; pulsation in the femoral and popliteal arteries is preserved. What is the most likely diagnosis?

A Diabetic microangiopathy of the vessels of the lower extremities
B Diabetic macroangiopathy of the vessels of the lower extremities
C Raynaud's disease
D Obliterating atherosclerosis of the vessels of the lower extremities
E Obliterating endarteritis of the vessels of the lower extremities

5. A 58-year-old patient has been suffering from type II diabetes for 3 years. He followed a diet, regularly took glibenclamide. Delivered urgently from the acute abdomen clinic. Objectively: increased nutrition, dry skin. In the lungs - vesicular breathing. Heart sounds are rhythmic, 90/min. Blood pressure - 130/70 mm Hg. Lives "board-like". Blood sugar - 9.8 mmol/l. Laparotomy is indicated for the patient. How should the treatment of diabetes be continued?

A Transfer the patient to regular insulin
B Continue taking glibenclamide
C Semilong - in the morning, and insulin in the afternoon and evening
D Glyurenorm 1 t. 3 times a day
E Manila 1 t. 3 times a day 78

6. A 65-year-old diabetic patient started taking antibiotics for pneumonia and discontinued glibenclamide due to lack of appetite. Soon, thirst increased, drowsiness, leg muscle cramps appeared. He fainted and was hospitalized. Objectively: consciousness is absent, skin is dry. The tone of the eyeballs is reduced, breathing is shallow, accelerated. Blood glucose - 36 mmol/l. Urine reaction to acetone is negative, to glucose - positive. Determine the patient's condition:

A Hyperosmolar coma
B Ketoacidotic coma
C Allergic reaction of delayed action
D Cerebral coma
E Lactacidemic

7. A 57-year-old patient with a diagnosis of type 2 diabetes mellitus discontinued hypoglycemic therapy due to food poisoning. Abdominal pain persists, thirst increases. At the time of examination, glycemia was 45 mmol/l, glucosuria 50 g/l. On examination: responds to questions, significant dehydration, dry skin, shallow, frequent breathing, tachycardia. Blood pressure - 80/60 mm Hg. Urine reaction to acetone is negative. Establish a preliminary diagnosis?

A Hyperosmolar coma
B Lactacidemic coma

C Ketoacidotic coma
D Cerebral coma
E Infectious-toxic shock

8. The patient is 67 years old and has been suffering from diabetes for 3 years. Receives glibenclamide in a dose of 10 2 mg per day. As a result of the accident, she received 2-3 degree burns. on 40% of the body surface. In the intensive care unit, the patient was troubled by weakness that worsened every day, periodic spasms of the muscles of the limbs. On the 10th day, frequent shallow breathing appeared. The skin and mucous membranes are dry, turgor is sharply reduced. Blood pressure - 50/10 mm Hg. Pulse - 130 beats/min. The liver is enlarged by 4.0 cm. Pathological tendon reflexes are determined. Oliguria. There is no ketonuria. What clinical signs of coma are depicted in the problem?

A Hyperosmolar diabetic coma
B Hypoglycemic coma
C Lactate-acidotic diabetic coma
D Ketoacidotic diabetic coma
E Hepatic coma

9. A 50-year-old diabetic patient, after the occurrence of furunculosis of the skin and the appointment of antibiotics, discontinued glibenclamide. The patient's condition worsened, increased thirst, dryness, diuresis - 4.5 l/day, fainted. Objectively: The skin is dry. Breathing is superficial, accelerated. RS - 100/min, BP - 90/40 mm Hg. Tones of the heart are deaf. The stomach is soft. Liver - +5 cm. Glycemia 43 mmol/l, reaction to acetone in urine is negative, glucose - positive. Determine the nature of the condition. A Hypersmolar coma B Ketoacidotic coma C Infectious-toxic shock D Diabetic ketoacidosis E Lactoacidotic coma 3 Patient K., 42 years old. He is 162 cm tall, weighs 87 kg, BMI = 33 kg/m2. The general condition is satisfactory. Heart sounds are dull, no murmurs are heard during auscultation. Heart rate - 72/min. In the lungs, breathing is vesicular. The lower edge of the liver protrudes 1.5-2 cm below the edge of the right hypochondrium. Swelling is not observed. I consulted an endocrinologist to determine obesity, its degree, and treatment methods. Blood pressure: on the right - 140/90 mm Hg, on the left - 145/85 mm Hg. Determine the type of obesity and its degree?

A *Alimentary and constitutional obesity, 1 st.
B Alimentary and constitutional obesity, 2nd art.
C Alimentary and constitutional obesity, 3rd century.
D Hypothalamic obesity 2 st.
E Overweight

3.2. Requirements for work results, including before registration: substantiation of the syndromic diagnosis based on complaints, medical history and life data, clinical examination.

3.3. Control materials for the final stage of the class: solving two clinical problems on the subject of the class, answering 10 tests (if necessary).

4. Summary, announcement of assessment results, announcement of the topic of the next lesson.

Practical lesson No. 3
Topic: Disease of the thyroid gland. Hypothyroidism. Etiology, pathogenesis, clinic, diagnosis and principles of treatment. The role of the dentist in prevention.

Purpose: Acquire knowledge and master professional competences during the examination of a patient with thyroid gland disease. To form an idea about the etiology, clinical features and pathogenesis of hypothyroidism. To learn the main methods of research of patients with hypothyroidism. Know the principles of treatment. Master the skills of evaluating laboratory indicators of hypothyroidism. Be able to draw up a plan for examination of patients with hypothyroidism.

Basic concepts: Thyroid gland, hormone, iodine, hypothyroidism.
Equipment: a laptop with a presentation, a multimedia projector, individual tasks on the topic of a practical lesson:
1. Organizational measures (greetings, verification of those present, announcement of the topic, purpose of the lesson, motivation of higher education seekers to study the topic).
2. Control of the reference level of knowledge (written work, written test, frontal survey, etc.) (if necessary):
1. On the basis of complaints, anamnesis data and physical examination, identify the presence of the main syndromes of hypothyroidism.
2. Establish a preliminary diagnosis.
3. Draw up a patient examination plan and interpret the results of instrumental and laboratory research.
4. Carry out differential diagnosis using diagnostic algorithms.
5. Diagnose the main chronic complications of diabetes.
6. Formulate the final diagnosis.

2.2. Questions to check basic knowledge on the topic of the lesson:
question:

1. Name the hormones synthesized by the thyroid gland and their functions.
2. Describe the concept of primary, secondary and tertiary hypothyroidism.
3. Etiology of hypothyroidism.
4. Thyroid disease syndromes.
5. Examination plan for a patient with hypothyroidism.
6. The main complaints of a patient with hypothyroidism.
7. Differential diagnosis of hypothyroidism.

8. Laboratory diagnosis of hypothyroidism.
9. Instrumental diagnosis of hypothyroidism.
10. Principles of treatment of hypothyroidism.
11. Describe changes in the oral cavity in patients with hypothyroidism.
12. Explain the features of providing dental services to a patient with hypothyroidism.

3. Formation of professional skills and abilities:

Task 1.

Patient V., 44 years old, complains of increased general fatigue
weakness, swelling of the face, increase in the size of the neck. Objectively: condition
relatively satisfactory. The face is pasty, the skin is dry, the hair is thin. Pulse 58 in min. BP 125/75 mm Hg. Heart tones are muffled. The belly is soft,
painless on palpation. The chair is prone to constipation. Shield-like
the gland is uniformly enlarged, mobile, painless. Peripheral lymph nodes
not increased.

1. What syndrome does the patient have?
    1.1 Hypothyroidism.
    1.2 Hyperthyroidism.
    1.3 Hypoparathyroidism.
    1.4 Hyperparathyroidism.
    1.5 Edema.
2. What research should be conducted by the patient in the first place for clarification of the diagnosis?
    2.1 Ultrasound of the thyroid gland, study of the main metabolism.
    2.2 Thyroid scan, blood sugar.
    2.3 Neck thermography.
    2.4 The level of TSH in the blood, Ro-graphy of the Turkish saddle.
    2.5 Ultrasound and thyroid scan, level of T3, T4, TSH in the blood.
3. What means of etiopathogenetic therapy should be used first of all
in this case?
    3.1 Thyroid hormones.
    3.2 Antibiotics.
    3.3 Diuretics.
    3.4 Sulfanilamide drugs.
    3.5 Iodine preparations.

Standard of answers: 1.1; 2.5; 3.1.

Task 4.

Patient C., 40 years old, complains of general and muscle weakness, rapid

fatigue, drowsiness, increase in the size of the neck, swelling of the face, irregular periods, change in tone of voice. Objectively: the face is pasty, dry skin, hyperkeratosis, thin hair. Pulse 56 per minute, blood pressure 125/75 mm Hg.
Heart tones are muffled. The chair is prone to constipation. Thyroid gland evenly enlarged, mobile, painless on palpation. Peripheral lymph nodes are not enlarged. Blood cholesterol - 9.2 mm/l. Scanogram thyroid glands: accumulation of the isotope is uneven, reduced. On the ECG: bradycardia, low voltage of the teeth, reduction of the ST segment down from isolines

1. What syndromes does the patient have?
1.1 Hyperthyroidism, enlargement of the thyroid gland, astheno-neurotic.
1.2 Enlargement of the thyroid gland, nephrotic, hypofunction thyroid gland.
*1.3 Hypothyroidism, thyroid gland enlargement, edematous, asthenic.
1.4 Euthyroidism, edematous, asthenic, hypovitaminosis.
1.5 Dysmetabolic, thyroid gland enlargement, asthenic.
2. What group of drugs is shown to the patient?
2.1 Diuretics.
2.2 Glucocorticoids.
2.3 Nonsteroidal anti-inflammatory drugs.
2.4 Hypolipidemic agents.
*2.5 Thyroid hormones.

Task 5.
Patient A., 35 years old, turned to the doctor with complaints about swelling lower limbs, general weakness, headache. About: massive edema lower limbs, waist, front abdominal wall. Blood pressure 130/80 mm Hg, Heart rate 78/min. Total blood protein 55 g/l, protein fractions of blood serum: albumins - 42%, globulins: alpha1 - 5%, alpha2 - 16%, beta - 19%, gamma - 18%.
Blood cholesterol - 9.2 mm/l. Proteinuria - 5 g/day.
1. What syndrome does the patient have?

1.1 Nephrotic.
1.2 Nephritic.
1.3 Urinary.
1.4 Edema.
*1.5 Proteinuric.

Task 6.
What symptoms that occur in the patient testify in favor of this syndrome?

*2.1 Edema of the lower extremities and waist, indicators of total protein and
protein fractions, daily proteinuria, BP numbers.
2.2 Swelling of the lower limbs, lower back, front abdominal wall, indicators of total protein, protein fractions and cholesterol, daily proteinuria.
2.3 Swelling of the lower extremities, anterior abdominal wall, indicators total protein, protein fractions and cholesterol.
2.4 General weakness, swelling of the lower back and front abdominal wall,
indicators of total protein, protein fractions, daily proteinuria.
2.5 Swelling of the lower limbs, lower back, front abdominal wall, indicators of total protein, protein fractions and cholesterol, BP numbers.

3.2. Requirements for work results, including before registration: substantiation of the syndromic diagnosis based on complaints, medical history and life data, clinical examination.

3.3. Control materials for the final stage of the class: solving two clinical problems on the subject of the class, answering 10 tests (if necessary).

4. Summary, announcement of assessment results, announcement of the topic of the next lesson.

Practical lesson No. 4
Topic: Disease of the thyroid gland. Hyperthyroidism. Etiology, pathogenesis, clinic, diagnosis and principles of treatment. The role of the dentist in prevention.

Purpose: Acquisition of knowledge and mastery of professional competences during the examination of a patient with hyperthyroidism. To form an idea about the etiology, clinical features and pathogenesis of hyperthyroidism. To be able to draw up a plan for the examination of patients with hyperthyroidism. To learn the basic methods of researching patients with hyperthyroidism. Know the principles of treatment. Master the skills of evaluating laboratory indicators of hyperthyroidism.

Basic concepts: Thyroid gland, hormone, iodine, hyperthyroidism.
Equipment: a laptop with a presentation, a multimedia projector, individual tasks on the topic of a practical lesson:
1. Organizational measures (greetings, verification of those present, announcement of the topic, purpose of the lesson, motivation of higher education seekers to study the topic).

2. Control of the reference level of knowledge (written work, written test, frontal survey, etc.) (if necessary):
1. On the basis of complaints, anamnesis data and physical examination, identify the presence of the main syndromes of hypothyroidism.
2. Establish a preliminary diagnosis.
3. Draw up a patient examination plan and interpret the results of instrumental and laboratory research.
4. Carry out differential diagnosis using diagnostic algorithms.
5. Diagnose the main chronic complications of diabetes.
6. Formulate the final diagnosis.

2.2. Questions to check basic knowledge on the topic of the lesson:
question:

1. Name the hormones synthesized by the thyroid gland and their functions.
2. Describe the concept of primary, secondary and tertiary hyperthyroidism.
3. Etiology of hyperthyroidism.
4. Syndromes of hyperthyroidism.
5. Examination plan for a patient with hyperthyroidism.
6. The main complaints of a patient with hyperthyroidism.
7. Differential diagnosis of hyperthyroidism.
8. Laboratory diagnosis of hyperthyroidism.
9. Instrumental diagnosis of hyperthyroidism.
10. Principles of treatment of hyperthyroidism.
11. Describe changes in the oral cavity in patients with hyperthyroidism.
12. Explain the features of providing dental services to a patient with hyperthyroidism.

General material and mass-methodological support
lectures:

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Questions for self-control:

1. Vlasenko M.V., Palamarchuk A.V., Prudius P.G. Diagnosis and treatment of patients with nodular goiter. Guidelines. - K. Medknyg Publishing House, 2019. - 72 p
2. American Diabetes Association (2022). 9. Pharmacologic Approaches to Glycemic Treatment: Standards of Medical Care in Diabetes—*2022*. Diabetes Care 2021;45 (Suppl.1): S125-S143 / https://doi.org/10.2337/dc22-S009

3. *Williams* Textbook of Endocrinology. Shlomo Melmed, Ronald Koenig, Clifford Rosen, Richard Auchus, Allison Goldfine. 14 edition, 2019. – 1792 P.
4. American Diabetes Association (2022). 6. Glycemic Targets**:** Standards of Medical Care in Diabetes—2022. Diabetes Care 2021;45, (Suppl.1): S83-S96 | https://doi.org/10.2337/dc22-S006
5. Endocrinology: a textbook (Y.I. Komisarenko, H.P. Mikhalchyshyn, P.M. Bodnar, etc.) Edited by Professor Yu.I. Komisarenko, - Ed. 5, processing. and additional – Vinnytsia: Nova Kniga, 2020. – 456 p.

3. Formation of professional skills and abilities:
Task 1.

Test 1.
Patient K., 37 years old, with a diagnosis of: "Diffuse toxic goiter of the III degree,
heavy flow Dyshormonal myocardial dystrophy. Atrial fibrillation,
tachysystolic form. Endocrine ophthalmopathy of the III century." And numbers
blood pressure 160/90 mm Hg. recommended by an endocrinologist
thyroid surgery.
Determine the indications for surgical treatment in this patient?

A. Arterial hypertension.
B. The severity of thyrotoxicosis and the size of the goiter.
C. Endocrine ophthalmopathy of the III degree.
D. Atrial fibrillation.
E. Dyshormonal myocardial dystrophy.

Test 2.
A patient came to the reception department of the hospital with complaints about sensations
interruptions in the work of the heart, shortness of breath during physical exertion, general
weakness, weight loss of 20 kg over the past year. Objectively: sick disturbed, undernourished, hyperemic face, skin
moist, hot, thyroid gland enlarged, painless on palpation.
Heart activity is arrhythmic, atrial fibrillation, tachysystolic form. JSC 180/70 mm Hg. Art. During the last year, the total gradually increased weakness, quick fatigue, sweating. Interruptions in the work of the heart appeared
a day ago after a strong psycho-emotional stress.
Your previous diagnosis?

A. Thyrotoxic crisis.
B. CHD: atherosclerotic cardiosclerosis.
C. Hypertensive crisis.

D. Cardiac-type vegeto-vascular dystonia.
E. Paroxysm of atrial fibrillation.

Test 3.

Patient M., 36 years old, with postoperative hypothyroidism, who receives thyroxine, tachycardia, sweating, sleep disturbances appeared.

Determine the tactics of further management of the patient?

A. Prescribe Tazepam.
B. Increase the dose of thyroxine.
C. Replace thyroxine with another drug from this group.
D. Prescribe anaprilin.
E. Reduce the dose of thyroxine.

Test 4.

Patient K., 58 years old, complains of palpitations, sweating, dry skin, brittle nails, memory loss, general weakness. The patient has a history of two pregnancies that ended in miscarriages.

Suffers from polyvalent allergy. When palpating the thyroid gland dense, painless, increased to II degree. It is defined in the right lobe a vaguely outlined node measuring 1x1.5 cm. During a puncture biopsy of the node

- no atypical cells were detected, lymphocytic infiltration, Ashkenazi cells-Gyurtlia Antibodies to thyroglobulin are determined in the blood at a titer of 1:200.

Your diagnosis?

A. Nodal toxic goiter.
B. Thyrotoxic adenoma.
C. Atrophic variant of autoimmune thyroiditis.
D. Hashimoto's autoimmune thyroiditis.
E. Nodular non-toxic goiter.

Test 5.

Patient A., 38 years old, complains of severe pain in the anterior region the surface of the neck radiating into the ears, palpitations, tremors of the fingers,

sweating, weakness, an increase in body temperature to feverish numbers.

Objectively: the skin is moist, hot to the touch. Thyroid gland diffusely increased to the II degree, of a very dense consistency, sharply painful The pulse is rhythmic 112 bpm, blood pressure 130/70 mm Hg. In the blood:

leukocytes 8.6 M/l, ESR 46 mm/hour. Uptake of iodine by the thyroid gland: after 2 hours - 3.6% (norm 13-26%), 24 hours - 2.3% (20-50%).

Your diagnosis?

A. Subacute thyroiditis.
B. Neck phlegmon.

C. Cancer of the thyroid gland.
D. Autoimmune thyroiditis.
E. Diffuse toxic goiter.__

Test 6.

Patient A., 43 years old, has been suffering from diffuse toxicosis for 7 months grade II goiter. With long-term treatment with mercazolil appeared leukopenia

What should be the tactics of further treatment?

A. Prednisone should be prescribed simultaneously with Mercazolil.
B. Prescribe Mercazolil with microiodine preparations.
C. Discontinue Mercazolil.
D. Operative treatment.
E. Prescribe mercazolil with thyroxine.

Test 7.

Patient A., 28 years old, complains of general weakness, palpitations, irritability, tearfulness. Objectively: height - 165 cm, weight 60 kg. Leather covers are wet. Pulse 106 per minute, blood pressure 130/70 mm Hg. Thyroid iron
evenly enlarged, painful on palpation, changes the configuration of the neck, mobile Positive symptoms of Grefe, Kocher, Rosenbach, Moebius.

Your previous diagnosis?

A. Toxic thyroid adenoma.
B. Subacute thyroiditis.
C. Diffuse toxic goiter.
D. Autoimmune thyroiditis.
E. Vegeto-vascular dystonia.

Test 8.

Patient S., 35 years old, with a diagnosis of diffuse toxic goiter, II degree, of average weight, treatment with mercazolil, anaprilin and phenazepam was started.

Against the background of therapy, the condition improved significantly, but developed severe
leukopenia

Name the cause of leukopenia?

A. Phenazepam.
B. Mercazolil.
C. Further progression of the disease.
D. Anaprilin.
E. Complication of diffuse toxic goiter.

3.2. Requirements for work results, including before registration: substantiation of the syndromic diagnosis based on complaints, medical history and life data, clinical examination.

3.3. Control materials for the final stage of the class: solving two clinical problems on the subject of the class, answering 10 tests (if necessary).

4. Summary, announcement of assessment results, announcement of the topic of the next lesson.

Practical lesson No. 5
Topic: Diseases of parathyroid glands. Etiology, pathogenesis, clinic, diagnosis and principles of treatment. The role of the dentist in prevention.

Purpose: Acquisition of knowledge and mastery of professional competences during the examination of a patient with parathyroid gland disease. To form an idea about the etiology, clinical features and pathogenesis of parathyroid gland disease. To learn the basic research methods of patients with parathyroid gland diseases. Know the principles of treatment. Master the skills of evaluating laboratory indicators of parathyroid gland diseases. Be able to draw up a plan for the examination of patients with diseases of the parathyroid glands.

Basic concepts: parathyroid glands, thyroid gland, hormone.
Equipment: a laptop with a presentation, a multimedia projector, individual tasks on the topic of a practical lesson:
1. Organizational measures (greetings, verification of those present, announcement of the topic, purpose of the lesson, motivation of higher education seekers to study the topic).
2. Control of the reference level of knowledge (written work, written test, frontal survey, etc.) (if necessary):
1. On the basis of complaints, anamnesis data and physical examination, identify the presence of the main syndromes of parathyroid gland diseases.
2. Establish a preliminary diagnosis.
3. Draw up a patient examination plan and interpret the results of instrumental and laboratory research.
4. Carry out differential diagnosis using diagnostic algorithms.
5. Diagnose the main chronic complications of diabetes.
6. Formulate the final diagnosis.

2.2. Questions to check basic knowledge on the topic of the lesson:
question:
Define the concept of diabetes.
Complaints of the patient about diabetes.

Specify the main etiological factors, features of pathogenesis.
Modern classification of diabetes.
The main clinical signs classification of diabetes.
Laboratory and instrumental examination of patients, interpretation of the obtained results.
Basic principles of treatment.

1. Specify the possible causes of hypoparathyroidism.
2. Describe the complaints of a patient with hypoparathyroidism.
3. Describe the symptoms of Trousseau and Chvostek.
4. What other symptoms can be detected on the upper and lower limbs, face with this disease?
5. To characterize an attack of tetany in hypoparathyroidism.
6. Indicate the principles of emergency care for an attack of tetany.
7. Describe the clinical manifestations of laryngospasm in hypoparathyroidism.
8. Describe emergency care for laryngospasm in a patient with hypoparathyroidism.
9. To characterize changes in tooth enamel in hypoparathyroidism.
10. To substantiate mandatory laboratory and instrumental studies in hypoparathyroidism.
11. Explain the significance of blood calcium determination as a screening marker for parathyroid diseases.
12. Indicate the principles of medical treatment of hypoparathyroidism.
13. Describe the difference between primary and secondary

    hyperparathyroidism. Specify the reasons for their occurrence.
14. To describe the changes in bone tissue in hyperparathyroidism, in particular the condition of the lower and upper jaws (fibrocystic osteopathy, osteoblastoclastoma of the jaws, pathological fractures).
15. Describe the changes in the kidneys and gall bladder in patients with hyperparathyroidism.
16. To justify mandatory laboratory and instrumental studies in hyperparathyroidism.
17. Specify laboratory markers of bone tissue resorption.

3. Formation of professional skills and abilities:

Test #1. What changes occur in the human body as a result of an excess of thyroid hormones:

A. Delay in physical and intellectual development
B. Slowing down of mental processes
B. Fluid retention
G. Lowering blood pressure
D. Acceleration of heart rate

Test #2. The following changes in metabolic processes in the body can be the result of an excess of thyroid hormones:

A. Increase in the level of glycemia
B. Lowering the level of glycemia
B. Increasing the level of LDL cholesterol
D. Increase in the level of triglycerides
D. Lowering the level of alkaline phosphatase

TASK #3. Determine the concentration of which substance in the blood regulates the function of the parathyroid glands:

A. Calcium
B. Phosphorus
V. Kaliya
G. Thyrotropin
D. Calcitonin

Test #4. An increase in the content of calcium in the blood occurs due to the following effects:

A. Activation of the function of osteoblasts
B. Inhibition of absorption of calcium in the intestines
B. Enhanced reabsorption of calcium by nephrons
H. Halmivnou's inhibitory effect on the synthesis of thyrocalcitonin
D. To increase the level of phosphorus in the blood

Test #5. What method can be used to determine the volume of the parathyroid glands:

A. X-ray research
B. Ultrasound research
V. Palpatory research
G. Reflexometry
D. Rheovasography

TASK #6. Define the condition that can cause a convulsive syndrome:

A. Hypocalcemia
B. Hypophosphatemia
V. Hyperglycemia
G. Hyperchloremia
D. Hypermagnesemia

Test #7. What changes in the human body does a lack of parathyroid hormone cause:

A. Osteporosis
B. Premature puberty
B. Acceleration of mental processes
G. Weight loss
D. Convulsive syndrome

Test #8. What changes occur in the human body as a result of an excess of parathyroid hormone:
A. Delay in physical and intellectual development
B. Slowing down of mental processes
B. Fluid retention
G. Osteoporosis
D. Acceleration of heart rate

Test #9. The following changes in metabolic processes in the body can be a consequence of parathyroid hormone deficiency:
A. Increase in the level of glycemia
B. Lowering the level of glycemia
B. Lowering the level of LDL cholesterol
G. Hypercalcemia
D. Hypocalcemia

Test #10. The following changes in metabolic processes in the body can be the result of an excess of parathyroid hormone:
A. Increase in the level of glycemia
B. Lowering the level of glycemia
B. Increasing the level of LDL cholesterol
G. Hypercalcemia
D. Hypocalcemia

Task 1.
Patient A., 35 years old, complained of neck pain
irradiate in the lower jaw and intensify when turning the head,
difficulty in swallowing, subfebrile body temperature. Endocrinologist
after the examination, a diagnosis of subacute thyroiditis was made.
Which group of drugs should be prescribed to the patient in the first place?
A. Nonsteroidal anti-inflammatory drugs and glucocorticoids.
B. Antibacterial drugs.
C. Thyroid drugs.
D. Immunosuppressants.
E. Thyrostatic drugs.

Task 2.
Patient S., 39 years old, complains of general and muscle weakness,
drowsiness, neck enlargement, difficulty swallowing,

puffiness of the face, irregular periods, lowering of the tone of the voice. Objectively: the face is pasty, the skin is dry, hyperkeratosis, thin hair. Tony hearts are deaf. Pulse 54 per minute, blood pressure 120/70 mm Hg. The chair is prone to constipation.
The thyroid gland is uniformly enlarged, mobile, painless
palpation In the general blood analysis: Er.-2.6 U/l, Hv 76 g/l, KP 0.9, Leuk.-6.2 M/l. General urine analysis: body weight 1018, protein and sugar were not detected,
epithelial cells 5-8 p/eye, leukocytes 1-2 p/eye, hyaline cylinders - 1 in
drugs Scanogram of the thyroid gland: accumulation of the isotope
uneven, reduced.
What is the most likely cause of anemia?

A. Hyperthyroidism.
B. Chronic glomerulonephritis.
C. Hypothyroidism.
D. Chronic adrenal insufficiency.
E. Chronic pyelonephritis.

Task 3.
Patient S., 39 years old, complains of general and muscle weakness,
drowsiness, neck enlargement, difficulty swallowing,
puffiness of the face, irregular periods, lowering of the tone of the voice. Objectively: the face is pasty, the skin is dry, hyperkeratosis, thin hair. Tony hearts are deaf. Pulse 54 per minute, blood pressure 120/70 mm Hg. The chair is prone to constipation.
The thyroid gland is uniformly enlarged, mobile, painless
palpation Scanogram of the thyroid gland: accumulation of the isotope
uneven, reduced. The endocrinologist diagnosed autoimmune disease thyroiditis, moderate hypothyroidism.
What treatment should be prescribed to the patient in the first place?

A. Thyroid preparations and iodine preparations.
B. Glucocorticoids and thyroid preparations.
C. Antibiotics and glucocorticoids.
D. Glucocorticoids and thyrostatic drugs
E. Beta-blockers and glucocorticoids.

3.2. Requirements for work results, including before registration: substantiation of the syndromic diagnosis based on complaints, medical history and life data, clinical examination.

3.3. Control materials for the final stage of the class: solving two clinical problems on the subject of the class, answering 10 tests (if necessary).

4. Summary, announcement of assessment results, announcement of the topic of the

next lesson.

Practical lesson No. 6
Topic: Diseases of the adrenal glands. Etiology, pathogenesis, clinic, diagnosis and principles of treatment. The role of the dentist in prevention.

Purpose: Acquisition of knowledge and mastery of professional competences during the examination of a patient with adrenal gland disease. To form an idea about the etiology, clinical features and pathogenesis of diseases of the adrenal glands. To learn the main methods of research of patients with adrenal gland diseases. Know the principles of treatment. Master the skills of evaluating laboratory indicators of adrenal gland diseases. Be able to draw up a plan for examination of patients with adrenal gland diseases.

Basic concepts: adrenal glands, hormone, renin-angiotensin-aldosterone system.
Equipment: a laptop with a presentation, a multimedia projector, individual tasks on the topic of a practical lesson:
1. Organizational measures (greetings, verification of those present, announcement of the topic, purpose of the lesson, motivation of higher education seekers to study the topic).
2. Control of the reference level of knowledge (written work, written test, frontal survey, etc.) (if necessary):
1. On the basis of complaints, anamnesis data and physical examination, identify the presence of the main syndromes of diseases of the adrenal glands.
2. Establish a preliminary diagnosis.
3. Draw up a patient examination plan and interpret the results of instrumental and laboratory research.
4. Carry out differential diagnosis using diagnostic algorithms.
5. Diagnose the main chronic complications of diabetes.
6. Formulate the final diagnosis.

2.2. Questions to check basic knowledge on the topic of the lesson:
question:

1. Describe the hormones produced by the cortex and medulla of the adrenal glands.
2. Specify the most common causes of chronic adrenal insufficiency (Addison's disease).
3. Describe the complaints of patients with Addison's disease.
4. Describe skin changes in chronic adrenal insufficiency.
5. To characterize changes in the mucous membrane of the oral cavity in Addison's disease.
6. Describe the symptoms of acute adrenal insufficiency.
7. Provide emergency care for acute adrenal insufficiency.

8. To characterize the tactics of dental interventions in Addison's disease (prevention of acute adrenal insufficiency during operative interventions on the dento-jaw system).
9. Define the terms "Itsenko-Cushing's syndrome" and "Itsenko-Cushing's disease". Explain the difference between them.
10. Describe the complaints and results of an objective examination of a patient with Itsenko-Cushing syndrome.
11. Describe the clinical manifestations of Kohn's syndrome.
12. Describe the syndrome of arterial hypertension in pheochromocytoma. Provide emergency care in case of hypertensive crisis.
13. Describe the changes in the maxillofacial system, gums, and mucous membrane of the oral cavity in hormonally active tumors of the adrenal glands.
14. Name laboratory and instrumental research methods for hormonally active tumors of the adrenal glands.
15. Describe the side effect of long-term use of glucocorticoids.

3. Formation of professional skills and abilities:

Test 1. What hormones are synthesized in the adrenal cortex?
1. adrenaline
2. norepinephrine
3. aldosterone
4. vasopressin

Test 2. What hormones are not synthesized in the adrenal cortex?
1. adrenaline
2. cortisol
3. aldosterone
4. androgens

Test 3. Which of the symptoms is not characteristic of adrenal gland damage?
1. hypertension
2. growth retardation
3. gigantism
4. obesity
5. generalized skin pigmentation

Test 4. Which of the symptoms is not characteristic of adrenal gland damage?
1. hypotonia
2. growth retardation
3. violation of sexual development
4. obesity
5. skin depigmentation

TASK #1.

A man, 36 years old, has been sick for 1-1.5 years. Complaints: severe weakness, poor appetite, nausea. I lost weight in 1 year by 10 kg. The skin of the face, neck, upper limbs is dark. Significant pigmentation of skin folds, nipples. Pigment spots on the inner surface of the oral cavity. Pulse - 60/min. Blood pressure - 80/50 mm Hg. Art. Previous diagnosis?

A. Chronic gastritis.
V. Itsenko-Cushing's disease. S. Diabetes mellitus.
D. Chronic hepatitis.
E. + Adrenal gland insufficiency.

TASK #2.

The patient is 42 years old. Complaints: periodic squeezing pain in the area of the heart, pronounced weakness in the proximal muscles of the limbs and cramps, pain in the back of the head, dizziness for 2 years. Height 176 cm, body weight - 80 kg. The borders of the heart are shifted to the left. ECG: sinus rhythm, oblique-descending reduction of the ST segment in all leads. Pulse - 92/min. Blood pressure - 190/100 mm Hg. Art. An. urine according to Zimnytskyi: polyuria, nocturia with isosthenuria. Hyporeninemia. Potassium curd - 2.8 mmol/l. What is the likely diagnosis?

A.+ Primary aldosteronism.
B. Hyperparathyroidism.
S. Essential hypertension.
D. Pheochromocytoma
E. Itsenko-Cushing syndrome

TASK #3.

A 32-year-old man has been complaining of muscle weakness, thirst, polyuria, and headache for a year. Height - 180 cm, body weight - 76 kg, heart rate - 76/minute, blood pressure - 170/105 mm Hg. Skin of normal moisture and color. There are no swellings. Hypokalemia, hypernatremia, hypochloremia. The urine density is 1007, the reaction is alkaline, proteinuria is 0.033 g/l. Diagnosis?

A. +Conn's syndrome.
B. Hyperparathyroidism.
C. Glomerulonephritis.
D. Cushing's syndrome.
E. Pyelonephritis.

TASK #4.

A 27-year-old patient with satisfactorily compensated type 1 diabetes developed frequent hypoglycemia, nausea, intestinal disorders, skin hyperpigmentation, blood pressure decreased to 80/50 mm Hg. st., anemia is increasing, Hb -105 g/l. What can be caused by the decrease in pressure?

A. Diabetic enteropathy
V. Diabetic gastropathy
S. +Chronic adrenal insufficiency
D. Overdose of antidiabetic drugs
E. Development of diabetes insipidus

TASK #5.

A 39-year-old woman complains of headache, weakness and paresthesias in the limbs, polyuria. Objectively: heart sounds are muffled, heart rate - 94/min., blood pressure - 90/105 mm Hg. Art. Blood glucose 5.5 mmol/l, plasma sodium - 148 l, plasma potassium - 2.7 mmol/l. -specific gravity - 1012, protein - alkaline reaction, L - 3-4 in p/z, Er in p/z. Specify the most likely diagnosis:

A. Hypertensive disease
B. Amyloidosis
C. Diabetes insipidus
D. Chronic glomerulonephritis
E. +Primary hyperaldosteronism

TASK #6.

Patient M., 32 years old, complains of muscle weakness, periodic convulsions, attacks of sudden general weakness, polyuria, nocturia, increased blood pressure. He has been sick for 8 months. The heart sounds are muffled, the accent of the II tone over the aorta, blood pressure - 170/100 mm Hg. art., there is no edema. In the blood: potassium - 3.0 mmol/l, glucose - 5.3 mmol/l. In the general analysis of urine: alkaline reaction of urine, protein - 0.066 g/l L - 3-5 in p.z. Hypoisostenuria is determined. Which of the following diagnoses is possible for the patient?

A.+ Primary hyperaldosteronism
B. Hypertensive disease
S. Chronic pyelonephritis

D. Itsenko-Cushing's disease
E. Pheochromocytoma

3.2. Requirements for work results, including before registration: substantiation of the syndromic diagnosis based on complaints, medical history and life data, clinical examination.

3.3. Control materials for the final stage of the class: solving two clinical problems on the subject of the class, answering 10 tests (if necessary).

4. Summary, announcement of assessment results, announcement of the topic of the next lesson.

Practical lesson No. 7
Topic: Diseases of the pituitary gland. Etiology, pathogenesis. Clinic, diagnosis and principles of treatment.

Purpose: Acquiring knowledge and mastering professional competences during the examination of a patient with pituitary diseases. To form an idea about the etiology, clinical features and pathogenesis of pituitary diseases. To learn the basic methods of research of patients with pituitary diseases. Know the principles of treatment. Master the skills of evaluating laboratory indicators of pituitary diseases. Be able to draw up a plan for examination of patients with pituitary disease.

Basic concepts: hypothalamic-hypophase system, hormones.
Equipment: a laptop with a presentation, a multimedia projector, individual tasks on the topic of a practical lesson:
1. Organizational measures (greetings, verification of those present, announcement of the topic, purpose of the lesson, motivation of higher education seekers to study the topic).
2. Control of the reference level of knowledge (written work, written test, frontal survey, etc.) (if necessary):
1. On the basis of complaints, anamnesis data and physical examination, identify the presence of the main syndromes of pituitary diseases.
2. Establish a preliminary diagnosis.
3. Draw up a patient examination plan and interpret the results of instrumental and laboratory research.
4. Carry out differential diagnosis using diagnostic algorithms.
5. Diagnose the main chronic complications of diabetes.
6. Formulate the final diagnosis.

2.2. Questions to check basic knowledge on the topic of the lesson:
question:

1. Describe the causes of Itsenko-Cushing's disease. Explain the difference between the disease and Itsenko-Cushing syndrome.
1. Define the term "hypercorticism".
2. Characterize changes in the skin, subcutaneous tissue, joint

bone system in Itsenko-Cushing's disease.
3. Describe changes in the endocrine system in Itsenko-Cushing's disease.
4. Name the causes of the development of acromegaly. Describe the main clinical manifestations of acromegaly.
5. Describe the changes in the oral cavity that are characteristic of acromegaly.
6. Name the causes of Symonds-Shien syndrome.
7. To characterize the clinical manifestations of Simonds - Shien.
8. Explain what hypopituitarism is and possible causes of its occurrence.
9. Explain what Symonds-Shien syndrome is.
10. Describe the causes of pituitary dwarfism.
11. Describe the clinical manifestations of pituitary dwarfism.
12. Name the causes of diabetes insipidus.
13. Describe the causes of gigantism.
14. Describe clinical manifestations.

3. Formation of professional skills and abilities:

Test 1.
Which of the following is not typical for damage to the pituitary gland?

A. Gigantism
B. Growth retardation
C. + Convulsions
D. Obesity
E. Polyuria

Test 2.
Define endocrine diseases that are accompanied by obesity

A. Itsenko-Cushing's disease
B. Addison's disease
C. Hyperparathyroidism
D. Toxic goiter
E. Type 1 diabetes

7.3. Problems for self-control with answers.

Task 1.
The patient complains of weakness, excretion of up to 10 liters of urine per day, thirst, insomnia, weight loss. General analysis of urine: specific gravity 1003, glucose and protein were not detected. 3-4 leukocytes in the field of vision. The level of glucose in the blood is 5.0 mmol/l. Make a diagnosis.

A. + Diabetes insipidus
B. Diabetes
C. Thyrotoxicosis
D. Hypothyroidism
E. Acromegaly

Task 2.
Patient M., 48 years old, turned to the FAP paramedic with complaints of constipation, excessive body weight, drowsiness, chills, and hair loss. This state appeared in the last 3 years, gradually progressing. Objectively: the patient's condition is of moderate severity, swelling on the face, neck, swelling of the eyelids, the eye slits are narrowed. Swelling of the mucous membrane of the nasopharynx, tongue, dry, wrinkled skin, crumbling nails. Vesicular above the lungs breath. The heart sounds are weakened, the pulse is 54/min, rhythmic. Blood pressure - 90/60 mm Hg. organs
abdominal cavity without pathology. Body temperature is 35.6°C. Your diagnosis?

A. + Hypothyroidism.
B. Diffuse toxic goiter.
C. Endemic goiter.
D. Diabetes.
E. Diabetes insipidus.

Task 3.
Patient P., 55 years old, with complaints of dry mouth, thirst, reduced work capacity, rapid fatigue, general weakness, drowsiness, itchy skin, weight loss. Objectively: the patient is excessively obese (height 160 cm, weight 94 kg). Dry skin, brittle nails, hair loss. Sharp deterioration of vision. Auscultatively - vesicular breathing in the lungs. Heart tones are weakened. Pulse - 78/min, rhythmic. Blood pressure 150/80 mmHg. The abdomen is soft, painful in the right hypochondrium. The liver is palpated on 2 see below from the costal arch. The spleen is not enlarged. Your diagnosis?

A. +Diabetes.
B. Hypothyroidism.
C. Obesity.

D. Pheochromocytoma.
E. Itsenko-Cushing's disease

Task 4
Patient A., 52 years old, was brought to the hospital on a stretcher. For two years, he has been under the supervision of a therapist for hypertension (BP 180-190/100 mm Hg). Six months ago, she fell on the street, after which the pain in her spine worsened, she stopped walking on her own. During the last two months, there has been an increase in fasting blood sugar to 8.0 mM/L. There is no acetone in the urine. X-rays revealed compression fractures of the bodies of the V and VI thoracic vertebrae, osteoporosis of the spine and pronounced osteoporosis of the back of the Turkish saddle. The level of ACTH in blood serum is increased by two times compared to the norm. Daily rhythm of 11-OKS: 8 g. - 325 nM/l (norm 140-230 nM/l), 16 g. - 300 nM/l, 0 g. - 375 nM/l.
Your diagnosis?

A. Itsenko-Cushing syndrome
B. Corticosteroma
C. Itsenko-Cushing's disease
D. Secondary hyperparathyroidism
E. Pheochromocytoma

Task 5.
Patient A., 52 years old, was brought to the hospital on a stretcher. For two years, he has been under the supervision of a therapist for hypertension (BP 180-190/100 mm Hg). Six months ago, she fell on the street, after which the pain in her spine worsened, and the patient stopped walking on her own. During the last two months, there has been an increase in fasting blood sugar to 8.0 mM/L. There is no acetone in the urine. X-rays revealed compression fractures of the bodies of the V and VI thoracic vertebrae, osteoporosis of the spine and pronounced osteoporosis of the back of the Turkish saddle. The level of ACTH in blood serum is increased by two times compared to the norm. Daily rhythm of 11-OKS: 8 g. - 325 nM/l (norm 140-230 nM/l), 16 g. - 300 nM/l, 0 g. - 375 nM/l.
What study of the functional state of the adrenal cortex must be conducted to confirm the diagnosis?

A. Small dexamethasone sample
B. A large dexamethasone trial
C. Sample with L-DOPA
D. Test with tyroliberin
E. Test with gonadoliberin

Task 6.
Patient K., 27 years old, developed bleeding in the postpartum period due to uterine atony. The patient lost 3 liters of blood. Gradually the state of health

improved. Discharged in satisfactory condition. 5 months after giving birth, she turned to the doctor with complaints of memory impairment, drowsiness, sluggishness, weight loss of 9 kg since childbirth, constipation, increased fatigue, apathy. There was no menstruation. Milk stopped coming on the 5th day. The hair in the armpits has fallen out. The skin is pale, dry.
Your previous diagnosis?

A. Shien syndrome
B. Secondary hypothyroidism
C. Secondary hypogonadism
D. Secondary hypocorticism
E. Stein-Leventhal syndrome

Task 7.
Patient K., 27 years old, developed bleeding in the postpartum period due to uterine atony. The patient lost 3 liters of blood. Gradually the state of health improved. Discharged in satisfactory condition. 5 months after giving birth, she turned to the doctor with complaints of memory impairment, drowsiness, sluggishness, weight loss of 9 kg since childbirth, constipation, increased fatigue, apathy. There was no menstruation. Milk stopped coming on the 5th day. The hair in the armpits has fallen out. The skin is pale, dry.
What hormones should be determined to clarify the diagnosis?

A. TSH, T3, T4
B. AKTG, TTG, FSG, LG, STG
C. ACTH, TSH, sex hormones
D. Sex hormones, T3, T4
E. Daily urinary excretion of 17-OKS and 17-KS

Task 8.
Patient V., 33 years old, complains of thirst (drinks up to 5 liters of water per day), increased urine output, weight loss, constipation, general weakness. He considers himself sick for six months. Objectively: the condition is relatively satisfactory. Dry skin and tongue. No pathology was detected on the part of the internal organs. Blood sugar is 4.8 mM/l. General analysis of urine: specific gravity - 1004, protein - traces, leukocytes 2-3 in the field of vision. Daily diuresis is 4.5 liters.
Your diagnosis?

A. Diabetes
B. Chronic kidney failure
C. Chronic glomerulonephritis
D. Diabetes insipidus
E. Chronic pyelonephritis

Task 9.
Patient V., 33 years old, complains of thirst (drinks up to 5 liters of water per day), increased urine output, weight loss, constipation, general weakness. He

considers himself sick for six months. Objectively: the condition is relatively satisfactory. Dry skin and tongue. No pathology was detected on the part of the internal organs. Blood sugar is 4.8 mM/l. General analysis of urine: specific gravity - 1004, protein - traces, leukocytes 2-3 in the field of vision. Daily diuresis is 4.5 liters.
What additional examination methods are necessary to confirm the diagnosis?

A. Blood ionogram
B. Test with adiurecrin
C. Blood proteinogram
D. Glucose tolerance test
E. Daily proteinuria

Task 10.

Patient V., 33 years old, complains of thirst (drinks up to 5 liters of water per day), increased urine output, weight loss, constipation, general weakness. He considers himself sick for six months. Objectively: the condition is relatively satisfactory. Dry skin and tongue. No pathology was detected on the part of the internal organs. Blood sugar is 4.8 mM/l. General analysis of urine: specific gravity - 1004, protein - traces, leukocytes 2-3 in the field of vision. Daily diuresis is 4.5 liters.
What treatment should be prescribed in the first place?

A. Pituitrin
B. Prednisone
C. Maninil
D. Ampiox
E. Adiurecrin

Task 11.
Patient R., 30 years old, complains of irritability, weakness, poor appetite, dizziness when quickly getting out of bed, irregular, scanty menstruation (once every 2-3 months). He has been sick for 2 years. The occurrence of the disease is associated with other difficult births accompanied by blood loss. The child is healthy. Due to the lack of milk in her mother, she was breastfed only for 2 months. The first pregnancy ended normally, the child was breastfed for up to a year. Objectively: height - 162 cm, body weight - 55 kg. The skin is dry, the mammary glands are hypoplastic. Decreased muscle tone. Hair loss in the armpits. Pulse 68 per minute. Blood pressure 105/70 mm Hg. (before childbirth was always within 125/80 mm Hg).
What syndrome does the patient have?

A. Astheno-neurotic
B. Hypocorticism
C. Hypotonic

D. Hypogonadism
E. Hypothyroidism

Task 12.
Patient R., 30 years old, complains of irritability, weakness, poor appetite, dizziness when quickly getting out of bed, irregular, scanty menstruation (once every 2-3 months). He has been sick for 2 years. The occurrence of the disease is associated with other difficult births accompanied by blood loss. The child is healthy. Due to the lack of milk from her mother, she was breastfed only for 2 months. The first pregnancy ended normally, the child was breastfed for up to a year. Objectively: height - 162 cm, body weight - 55 kg. The skin is dry, the mammary glands are hypoplastic. Decreased muscle tone. Hair loss in the armpits. Pulse 68 per minute. Blood pressure 105/70 mm Hg. (before childbirth it was always within 125/80 mm Hg).
Your diagnosis?

A. Hypothyroidism
B. Shien syndrome
C. Primary hypogonadism
D. Secondary hypogonadism
E. Hypopituitarism

Task 13.
Patient L., 28 years old, a driver, complains of thirst (drinks up to 6 liters of liquid per day), frequent profuse urination, weakness, weight loss, lack of appetite. He has been ill for about 2 weeks. The disease is associated with a nervous breakdown as a result of a road and transport event. Was not treated. During the illness, he lost 5 kg. Height 173 cm, body weight 65 kg. The skin is dry. During the examination of the respiratory organs and the heart, no pathology was found. The tongue is dry, the stomach is soft, painless on palpation. Pasternacki's symptom is negative. Analysis of urine according to Zimnytskyi: specific gravity 1002-1004. The endocrinologist diagnosed diabetes insipidus.
Is it indicated for the patient to switch to another job?

A. Not indicated under the condition of adequate therapy
B. Indications
C. Not indicated with sufficient fluid intake
D. Complete exemption from labor activity is shown
E. The transition to light work is shown

3.2. Requirements for work results, including before registration: substantiation of the syndromic diagnosis based on complaints, medical history and life data, clinical examination.

3.3. Control materials for the final stage of the class: solving two clinical problems on the subject of the class, answering 10 tests (if necessary).

4. Summary, announcement of assessment results, announcement of the topic of the next lesson.