

ЛД-21 ИИ

Federal State Budgetary Educational Institution
higher education "North Ossetian State Medical Academy"
Ministry of Health of the Russian Federation
(FGBOU VO SOGMA MRussian Health Ministry)

DEPARTMENT OF INTERNAL MEDICINE №2

**GUIDELINES
TO PERFORM INDEPENDENT OUT-OF-AUDIT WORK OF STUDENTS FOR
PRACTICAL CLASSES IN THE DISCIPLINE "ENDOCRINOLOGY"**

METHODOLOGICAL MATERIALS
the main professional educational program of higher education - the specialty
program in the specialty 31.05.01 General medicine

Vladikavkaz

Methodological materials are intended for teaching 5th year students (9th semester) of the Faculty of General Medicine FGBOU VO SOGMA Min health of Russia in the discipline "Endocrinology".

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**Topic: "Diabetes mellitus: etiology, pathogenesis
AND CLASSIFICATION "**

Give the definition of the disease "Diabetes mellitus".

Write the classification of diabetes mellitus.

Fill the table

Sign	Type 1 diabetes mellitus.	Diabetes mellitus type 2.
Age to start diseases		
Onset of the disease		
Body mass		
Floor		
The severity of clinical symptoms		
Diabetes course		
Ketoacidosis		
Ketone level bodies in blood		
Analysis of urine		
Seasonality start diseases		
Insulin levels and C-peptide in plasma		
The state of jelly-mammary gland		
Lymphocytes and others inflammatory cells in the islet (insulitis)		
Pancreatic islet antibodies glands		
Genetic markers		
Concordance monozygous twins		
Diabetes incidence in relatives 1 degree of kinship		
Late complications		

Complete the Glucose Tolerance Test Results Table

Conditions research	Glucose concentration, mmol / l	
	Whole blood	Plasma

	Venous	Capillary	Venous	Capillary
Sugar Diabetes On an empty stomach In 2 hours after loading ki glucose				
Violated tolerance to glucose On an empty stomach In 2 hours after glucose load				

Topic: "DIABETES SUGAR. CLINIC".

1. Enter in the table the differential signs of clinical manifestations of type 1 and 2 diabetes mellitus.

Signs	Diabetes Type 1	Diabetes 2 types
Start diseases		
Age to debut CD		
Body mass		
Diabetes course		
Late complications		
Insulin failure		

What classification of angiopathies do you know?

Create a table for the classification of diabetic retinopathy (WHO).

Create a table for the classification of diabetic nephropathy.

Give the classification of diabetic neuropathy:

Give a definition of the concept of "Diabetic foot syndrome"

Topic: "DIABETES SUGAR. TREATMENT OF SD. "

Calculate the daily energy value of food for the patient's physiological body weight of 75 kg, taking into account physical activity (in the hospital)....

Calculate the proportion of carbohydrates, fats, proteins from the daily calorie intake (2250 kcal).

Determine the diet according to the antihyperglycemic drug deployment effect.

List the contraindications for the use of biguanides.

List the indications for insulin therapy for diabetes mellitus.

What do you know the most used methods of insulin therapy?

List the short-acting insulins:

long-acting insulins:

combined insulin preparations:

Topic: "COMATIC CONDITIONS IN DIABETES MELLITUS"

List the acute complications of diabetes mellitus

Continue the list of reasons for the increased need for insulin in diabetic patients with ketoacidotic coma:

infectious diseases,
concomitant endocrine disorders,
myocardial infarction,

List the most common complaints and symptoms in developing ketoacidotic coma:

Treatment principles for ketoacidotic coma:

Predisposing factors for the development of hyperosmolar coma

The clinical picture of hyperosmolar coma:

Symptoms:

physical examination:

Principles of treatment for hyperosmolar coma:

Predisposing factors for the development of lacticidemic coma

The clinical picture of lacticidemic coma:

Symptoms:

physical examination:

laboratory diagnostics

Principles of lacticidemic coma treatment:

Factors in the development of hypoglycemic coma:

The clinical picture of hypoglycemic coma:

Symptoms:

physical examination:

laboratory diagnostics ...

Principles of treatment for hypoglycemic coma:

Topic: "HYPOTHYREOSIS".

Definition of the concept of "hypothyroidism".

Classification and causes of development:

Classification	The reasons
Primary	
Secondary: Pituitary Hypothalamic	
Peripheral	

Fill out the table of clinical manifestations of hypothyroidism

System organism	Symptoms
Skin, its appendages and mucous membranes	
Respiratory system	
Circulatory system	
Digestive system	
Excretory system	
Reproductive system	
Osteoarticular system	
Hematopoietic system	
Neuropsychic system	
Metabolic and metabolic changes	
ENT - system	

Differential diagnosis of different types of hypothyroidism:

Indicator	Hypothyroidism type		
	Primary	Secondary	Tertiary
TSH			
TK			
T4			
TSH test			
TRG test			

Dosage of thyroid medications...

Patients without cardiac pathology, under 65	Patients with cardiac pathology and / or over 65
----------------------------------------------	--------------------------------------------------

years of age	years of age
The dose of L-thyroxine and / or Eutirox starts at the rate of... ..per 1 kg of ideal weight. Estimated daily dose: <ul style="list-style-type: none"> women - mcg / day men - mcg / day 	Initial dose.... per day, increase by... .. at intervals of... months until the TSH level normalizes and, if cardiac symptoms appear, correct therapy.

Continue in the table the clinical and laboratory symptoms, treatment of hypothyroid coma.

Reasons for development	
Clinical symptoms	
Laboratory data	
Treatment	

**Topic: "DIFFUSE TOXIC GOITER (DTZ),
GRAVES-BAZEDOV'S DISEASE ".**

Make an algorithm for the pathogenesis of DTG

Give the classification of goiter according to Nikolaev and WHO.

DTZ clinic.
Fill the table.

Leather	
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Hair	
Fingernails	
Subcutaneous tissue	
Muscle	
Bone	
The cardiovascular system	
Gastrointestinal tract	
Liver	
Toxic encephalopathy	
Nervous system	
Organs of vision	

DTZ diagnostics.

Diagnosis is based on analysis

- clinical signs
- general blood test ...

- biochemical blood test ...,
- disorders in the blood coagulation system ...

- indicators of hormones TSH, T3 free, T4 free

- serum thyroglobulin level indicator....
- on the ECG:

- when scanning a thyroid gland ...

- with ultrasound of the thyroid gland ...

Treatment.

Methods for treating DTZ

Drug therapy:

Surgery...

Determine the indications and contraindications for the surgical treatment of DTZ.

Treatment with radioactive iodine.

Determine the indications, contraindications for the treatment of DTZ with radioactive iodine.

Endocrine ophthalmopathy.

The most characteristic symptoms of endocrine (autoimmune) ophthalmopathy are.

**Topic: "CHRONIC INSUFFICIENCY OF THE CORK
ADRENAL - ADDISON'S Disease "**

Give a definition of chronic adrenal cortex insufficiency.

Make a pathogenesis scheme based on the pathogenetic classification of chronic adrenal insufficiency.

Conduct differential diagnosis of various forms of adrenal insufficiency (primary, secondary).

**Primary and secondary chronic adrenal
failure**

Fill the table

Symptoms and laboratory indicators	Primary failure	Secondary failure
Arterial hypotension		
Weight loss		
Hypoglycemia		
Hyperpigmentation skin and mucous membranes shells		
Concomitant hypothyroidism		
Concomitant hypogonadism		
Stunted growth		
ACTH blood level cortisol TSH T3 and T4 LH and FSH		
STH deficiency		
Urinary cortisol excretion		
Skull X-ray (changes in Turkish saddles)		

Prescribe treatment for a patient with chronic adrenal insufficiency.

Explain the reason for the development of the Addison crisis, clinical manifestations.

Topic: "DISEASES OF THE PIPOPHYSIS"

Give the definition of Itsenko-Cushing's disease (hypercortisolism) associated with ACTH hypersecretion of pituitary origin:

Make a diagram of the pathogenesis of Itsenko-Cushing's disease

What hormone disorder is associated with the clinical picture of the disease (obesity, hypertension, hyperglycemia, osteoporosis, etc.)

Conduct differential diagnosis of Itsenko-Cushing's disease, Itsenko-Cushing's syndrome, juvenile dyspituitarism and hypothalamic syndrome based on hormonal parameters

Fill the table

Indicators	Itsenko-Cushing's disease	Itsenko-Cushing's syndrome	Youthful dyspituitarism	Hypothalamic syndrome
ACTH level in the morning in the evening				
Level blood cortisol in the morning in the evening				
The level of free cortisol in daily urine				
Large sample from dexamet zone				
Small sample from dexamet zone				
ACTH test				

Fill out the table that reflects the features of the clinical manifestation and laboratory diagnosis of Itsenko-Cushing's disease.

Symptoms	Clinical manifestations
Leather	
Hairline	
Body mass	
Distribution of adipose tissue	
Muscular system	
Bones	

Respiratory system	
Cardiovascular system: blood pressure, heart borders and etc.	
Liver	
UAC	
Blood biochemistry	
ACTH level	
Cortisol levels	
X-ray of the skull	
Immunity	
CT and MRI of the pituitary gland	
Ultrasound, CT, MRI adrenal glands	

Treatment of Itsenko-Cushing's disease (radiation therapy, surgery and drug therapy).

Conduct a differential diagnosis of Acromegaly and Gigantism.