**FEDERAL STATE BUDGET EDUCATIONAL**
**HIGHER EDUCATION INSTITUTION**
**"ROSTOV STATE MEDICAL UNIVERSITY"**
**MINISTRY OF HEALTH OF THE RUSSIAN FEDERATION**

**FACULTY OF TREATMENT AND PREVENTION**

Assessment materials for the discipline

# "Fundamental Medicine"

(appendix to the work program of the discipline)

Specialty 05/31/01 General Medicine

2023

**1. List of competencies formed by the discipline or in formation which discipline is involved:**

| Code and name general professional competencies | General professional achievement indicator(s) competencies |
|---|---|
| OPK-5 | ID 1 OPK-5 Masters the algorithm for clinical, laboratory and functional diagnostics when solving professional problems.<br><br>ID 2 OPK-5 Able to evaluate the results of clinical, laboratory and functional diagnostics when solving professional problems.<br>ID 3 OPK-5 Able to assess morphofunctional, physiological parameters and determine the presence of pathological processes in the human body based on clinical, laboratory, physical and<br>instrumental research methods.<br>ID 4 OPK-5 Able to determine the main indicators of the patient's physical development and functional state, taking into account the anatomical and physiological characteristics of the patient's age |
| OPK - 7 | ID 1 GPC-7 Knows modern drug and combination treatment regimens in accordance with the standards of medical care<br>ID 3 OPK-7 knows prescribing regimens for safe combinations of drugs in accordance with clinical recommendations |

OPK-5, OPK-7:
**test questions**(the answer in bold is correct)

The content of liquid media in the body of an adult healthy person based on body weight is (%):

1)**55-60**;

2) 45-50;

3) 75-90;

4) 30-40.

In the body of an adult, blood makes up the percentage of body weight (%): 1)

**6-8**;

2) 20;

3) 16-18;

4) 28.

The hematocrit indicator for a healthy adult at rest is (%): 1) for men 30-33,

for women 70-72;

2) for men 50-55, women 50-53;

3) for men and women 55-60;

4)**in men44-48, women 41-44**.

The number of red blood cells in the blood of a healthy adult male is: 1) $5•10^9$/l;

2) $8•10^{12}$/l;

3) $4.5\text{-}5.5•10^{10}$/l;

4)**$4.5\text{-}5.0•10^{12}$/l**.

The number of red blood cells in the blood of a healthy adult woman is: 1) $5•10^9$/l;

2) $8•10^{12}$/l;

3) $4.5\text{-}5.5•10^{12}$/l;

4)**$3.8\text{-}4.5•10^{12}$/l**.

In the blood of a healthy man, the amount of hemoglobin is (g/l): 1) **130-160**;

2) 115-130;

3) 170-190;

4) 90-100.

In the blood of a healthy woman, the amount of hemoglobin is (g/l): 1) 90-100;

2) 135-160;

3)**120-140**;

4) 170-190.

The color index of blood is: 1) 0.1-1.0;

2) 45-50;

3) 1-2;

4)**0.8-1.0.**

The normal ESR value in men is (mm/h): 1)**1-10**;

2) 40-45;

3) 2-15;

4) 30-40.

The normal ESR value in women is (mm/h): 1)**2-15**;

2) 1-10;

3) 40-50;

4) 30-40.

The amount of albumin in blood plasma is (g/l):

1) 8-10;

2) 15-30;

3) 68-80;

4)**38-50**.

The liquid internal environment of the body consists

of: 1)**blood and gastric juice**

2) blood and intestinal juice;

3) gastric and intestinal juice;

4) blood, lymph, tissue fluid.

Enzymes (enzymes) in chemical structure are (mainly) 1) ionized

form of metals

2) glycolipid complexes

3)**protein molecules**

4) individual amino acids are

called coenzymes

1)**non-protein part of the enzyme**

2) the protein part of the enzyme

3) enzyme inhibitor

4) enzyme activator

Coenzymes are:

1) inactive enzyme precursor molecules

2) specific enzyme inhibitors

3) allosteric modulators

4)**factors of non-protein nature, in the presence of which the apoenzyme exhibits catalytic activity.** The protein part of a complex enzyme is called 1) a coenzyme

2) prosthetic group

3)**apoenzyme**

4) effector

Leukocytes are characterized by:

1) participation in gas exchange

2) polarity

3) functioning in the lumen of blood vessels

4) the presence of organelles of estracellular biosynthesis

**5) the ability for independent movement (movement) and participation in protective reactions**

In the cerebellar cortex the main cells are:

1) basket-shaped

2) small stellate

3) Golgi cells

4) granule cells

**5) pear-shaped**

The proximal part of the nephron is lined with epithelium:

**1) single-layer single-row prismatic edged**

2) single-layer, single-row flat

3) single-layer double-row cubic

4) single-layer multi-row prismatic flickering

5) single-layer single-row cubic

Substances contained in the secretory granules of atrial cardiomyocytes are involved in:

**1) regulation of blood pressure**

2) regulation of thrombus formation

3) regulation of vascular permeability

4) modulation of immune responses

5) generation of electrical impulse

The alveoli do not collapse during exhalation due to the fact that:

1) their wall contains smooth myocytes

2) in the interalveolar septa there are smooth myocytes that regulate alveolar lumen

**3) their inner surface is covered with surfactant**

4) alveolocytes lie on the basement membrane

5) in the interalveolar septa there are collagen and elastic fibers.

A diagnostic method aimed at detecting a pathogen in the test material and identifying it

1) microscopic

**2) microbiological**

3) genetic

4) serological

The period of the infectious process characterized by the most complete symptoms

1) prodromal

2) incubation

**3) height**

Recombinant yeast vaccine is used to prevent 1) rubella

2) measles

**3) hepatitis B**

4) polio

Material from a patient with meningococcal meningitis

1) fingerprint swabs from the nasal mucosa, a swab from the conjunctiva

**2) smear from the mucous membrane of the nasopharynx, cerebrospinal fluid, blood**

3) urine, feces, saliva

The main routes of transmission of

poliomyelitis 1) transplantation, parenteral

**2) nutritional, airborne**

3) sexual, intranatal

What is the main link in the pathogenesis of traumatic

shock? 1) Metabolic disorder.

**2) Excessive pain afferentation.**

3) Hormonal imbalance.

4) Lipid metabolism disorder.

The process that promotes hyperonkia at the site of inflammation? 1)

Strengthening the synthesis of carbohydrates.

2) Reduced protein synthesis.

**3)Increasing protein due to cell destruction.**

How does the urine reaction change during metabolic acidosis?

**1) The acidity of urine increases.**

2) The acidity of urine decreases.

3) Does not change.

What underlies the development of the pathochemical stage of delayed-type allergy?

**1) Release of lymphokines.**

2) Isolation of leukotrienes.

3) Release of histamine and serotonin.

4) Release of kinins and prostaglandins.

What changes in the Price-Jones curve should be expected in iron deficiency anemia?

**1) Shift left.**

2) Shift to the right.

3) There will be no changes.

Note the main groups of causes of reflex sinus tachycardia: 1) Decrease in blood pressure

2) Pain

3)Hypoxia

4**)All listed**

Name the main hemodynamic indicator that determines the value of blood pressure:

**1) Vascular resistance.**

2) Blood flow speed.

3) Concentration of adrenaline in the blood.

During which process in the kidneys can the maximum amount of protein be excreted in the urine? 1) Chronic kidney failure.

2) Acute kidney failure.

**3) Nephrotic syndrome**.

The following takes part in the formation of ascites in portal hypertension of hepatic origin:

1) Decrease in hydrostatic pressure in v. porta.

2) Inhibition of the renin-angiotensin-aldosterone system.

**3)Increasing vascular permeability**

How do blood glucose levels change with adrenal insufficiency? 1)Increases

2) Does not change

**3) Decreases**

What part of the central nervous system is affected by bulbar palsy?

1)Cerebral cortex

2)Spinal cord

3) Hypothalamus

**4) Medulla oblongata**

What type of metabolic disorder will lead to the development of microangiopathy in diabetes mellitus?

**1) Carbohydrate and protein.**

2) Fat.

3) Water-electrolyte.

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The method of measuring hearing acuity is called 1)

phonography

2) noise metry

**3) audiometry**

4) auscultation

Electroencephalography is the registration of 1) biopotentials of

tissues and organs for diagnostic purposes

2) biopotentials that arise in the heart muscle when it is excited

3)bioelectric activity of muscles

**4)bioelectric activity of the brain**

Farsightedness, as one of the disadvantages of the optical system of the eye, is that the back focus in the absence of accommodation lies:

1) in front of the retina

**2)behind the retina**

3) away from the retina

4) on the retina

They use 1) infrared radiation in

a solarium

**2) ultraviolet**

3) gamma radiation

4) alpha radiation

In fluorography, 1) alpha radiation is used to obtain an image.

2) visible

**3) x-ray**

4) thermal

5) betta

Half-life

**1) Time during which the concentration of the drug in the blood plasma decreases by 2 times**

2) Time during which the effect of the drug decreases by 2 times

3) Time during which the concentration of the drug in the blood plasma increases by 2 times

4) Time during which the concentration of the drug in the body decreases by 2 times

5) The time during which the effect of the drug increases by 2 times. The

mechanism of action of fluoxetine

1) Inhibition of neuronal reuptake of norepinephrine

2) Inhibition of neuronal reuptake of dopamine

**3) Inhibition of neuronal reuptake of serotonin**

4) Inhibition of intraneuronal MAO type B

5) Inhibition of intraneuronal MAO type A. The leading factor in

the hypotensive effect of beta-blockers 1) Increase in heart rate

and IOC

2) Decrease in BCC

3) Decreased activity of the renin-angiotensin-aldosterone system

**4) Decrease in heart rate and IOC**

5) Decrease in OPSS

A drug from the glucocorticoid group

**1) Hydrocortisone**

2) Deoxycorticosterone

3) Corticotropin for injection

4) Retabolil

5) Aldosterone

Function of sulbactam in combination penicillin preparations 1)

Disrupts cell wall synthesis

2) Disturbs protein synthesis

3) Disturbs the function of the cytoplasmic membrane

**4) Inhibits beta-lactamase**

Which canal passes through the pyramid of the temporal bone? 1). visual channel

2).**facial canal**

3). condylar canal

4). pterygoid canal