

THE FIRST ANSWER IS CORRECT IN EACH QUESTION

A patient develops prolonged hemorrhages and hemorrhages into the muscles and joints as a result of any microtraumas. In the blood there is a deficiency of the VIII plasma factor of blood coagulation. What disease of blood system is observed in this patient? (2019, N1)

- +Hemophilia A
- Iron-deficiency anemia
- B<sub>12</sub> and folate deficiency anemia
- Thrombocytopenic purpura
- Vaquez disease (polycythemia vera)

A patient has developed anuria. Blood pressure is 50/20 mm Hg. What process of uropoiesis was disturbed resulting in acute decrease of urine output? (2019, N3)

- +Glomerular filtration
- Obligate reabsorption
- Tubular secretion
- 
- Facultative reabsorption

After a surgery the patient presented with a severe pain syndrome. What change in the patient's hormonal status is most likely in this case? (2019, N 5)

- +Increased catecholamine production
- Decreased ACTH production
- Deceased production of glucocorticoids
- Insulin hypersecretion
- Decreased production of mineralocorticoids

What is the mechanism of indirect action of ionizing radiation on cells? (2019, N 18)

- +Formation of large amount of free radicals
- Chromosome rupture
- Swelling of organelles
- Formation of large amount of free radicals
- Activation of protein biosynthesis
- Damage to the cytoplasmic membrane

A patient suffers from diarrhea, dermatitis, and dementia. What vitamin is likely to be deficient in this patient, causing the patient's condition? (2019, N 19)

- +Nicotinic acid
- Vitamin D
- Retinol
- Tocopherol
- Vitamin K

A 23-year-old man came to the infectious diseases department with complaints of abdominal distension and diarrhea. He was diagnosed with lamblia. What type of leukocytosis is characteristic of this disease? (2019, N 25)

- Eosinophilic
- Basophilic
- Monocytic
- Lymphocytic
- Neutrophilic

A man received a radiation dose of 30 Gy. He presents with necrotic angina, disorders of the gastrointestinal tract. Blood tests revealed anemia, leukopenia and thrombocytopenia. What stage of acute radiation sickness is observed in the patient? (2019, N 26)

- +Manifest illness stage
- Latent stage
- Prodromal stage
- 
- Recovery

An unconscious patient was brought into the intensive care unit. Acetone breath, acute hyperglycemia, and ketonemia are detected. What complication of diabetes mellitus occurred in this case? (2019, N 39)

- +Diabetic coma
- Nephritis
- Hypoglycemic coma
- Acute acetone poisoning
- Cataract

To reproduce Ehrlich carcinoma in rabbit, a certain amount of benzpyrene (polycyclic aromatic hydrocarbon) was daily applied to a dehaired patch of skin of the animal. What method is used for tumor modelling in this case? (2019, N 40)

- +Induction
- Transplantation
- Explantation
- Ionizing radiation
- Hormone administration

Examination of a 45-year-old man, who for a long time kept to a vegetarian plant-based diet, revealed him to have negative nitrogen balance. What peculiarity of his diet has caused such developments? (2019, N 59)

- +Insufficient protein content
- Insufficient fat content
- Insufficient vitamin content
- Excessive carbohydrate content
- Excessive water content

A 42-year-old patient is present with skin pallor, weakness, and enlarged lymph nodes. In peripheral blood: leukocytosis, no intermediate forms of leukocytes (“leukemic hiatus”), accelerated ESR. Which disease can be suspected in this case?

- +Acute leukemia
- Neutrophilic leukocytosis
- Chronic leukemia
- Erythromyelosis
- Leukemoid reaction

A couple came to the genetic consultation for their newborn child to be examined. Karyotype test detects an additional chromosome in the 21 pair. What diagnosis can be made? (2019, N 68)

- +Down syndrome
- Turner syndrome
- Edwards syndrome
- Patau syndrome
- Klinefelter syndrome

People, who were in the building during a fire, suffer from carbon monoxide poisoning. What type of hypoxia can be observed in this case? (2019, N 77)

- +Hemic
- Hypoxic
- Respiratory
- Circulatory
- Tissue

A 54-year-old man requested a pharmacist’s advice on drug prescription. The patient has 4-year-long history of chronic glomerulonephritis and 2-year-long history of persistent hypertension. What substance synthesized in the kidneys has important role in development of arterial hypertension? (2019, N 77)

- +Renin
- Aldosterone
- Catecholamines
- Histamine
- Nitric oxide

I.I. Mechnikov, when studying inflammatory process, described a certain order that is characteristic of leucocytes migration to the inflammation focus. The cells emigrate to the focus in the following order: (2019, N 85)

- +Neutrophilic granulocytes, monocytes, lymphocytes
- Monocytes, lymphocytes, neutrophilic granulocytes
- Neutrophilic granulocytes, lymphocytes, monocytes
- Monocytes, neutrophilic granulocytes, lymphocytes
- Lymphocytes, monocytes, neutrophilic granulocytes

A 55-year-old man came to a doctor with complaints of acute pain in his big toes. Meat and wine are a permanent fixture in his diet. The doctor suspects gout. What substance must be measured in the patient's blood to confirm this diagnosis? (2019, N 98)

+Uric acid

Lactate

Ketone bodies

Bilirubin

Urea

A patient is diagnosed with acute pancreatitis. For diagnostic purpose it is necessary to measure the activity of the following enzyme in the patient's blood: (2019, N 120)

+Amylase

Creatine kinase

Aldolase

LDH

Pepsin

A patient complains of polyuria. Urine test detects no pathologic components, but urine specific gravity is abnormally low. What hormone secretion is likely to be disturbed in this patient? (2019, N 121)

+Vasopressin

Insulin

Thyrotropin

Somatotropin

Cortisol

One hour after a child took polyvitamin in the dosage form of syrup, the child developed a markedly itching urticaria-type rash all over the body. What type of allergic response can be characterized by this sign? (2019, N 122)

+Anaphylactic

Delayed-type hypersensitivity

Immune complex

Cytotoxic

Autoallergic

After a physical exertion a person develops extra (premature) cardiac contractions. What type of arrhythmia is it? (2019, N 123)

+Extrasystole

Sinus tachycardia

Sinus bradycardia

Paroxysmal tachycardia

Ventricular fibrillation

A 9-year-old child due to acute bronchitis developed elevated body temperature up to 38,5°C that lasted for a week and was then followed by a drop in the temperature down to 37°C. What mechanism is leading at the 3rd stage of fever? (2019, N 130)

- +Peripheral vasodilation
- Development of chills
- Increased heat production
- Increased diuresis
- Increased respiration rate

During lancing an abscess in the oral cavity, it produces a yellow-green discharge. What cells are always present and predominant in the purulent exudate? (2019, N 133)

- +Neutrophils
- Erythrocytes
- Eosinophils
- Basophils
- Lymphocytes

A 50-year-old patient in a poor condition was presented to the hospital. Objectively, the skin and visible mucous membranes are cyanotic, arterial blood saturation – 88%, NiBP – 90/60 mm Hg, pulse is 117 per minute, respiratory rate is 22 per minute. From the history it is know that the patient suffers from chronic heart failure. Which of the following types of hypoxia is most likely to develop in this case? (2019, N 155)

- +Circulatory
- Hypoxic
- Hemic
- Tissue
- Anemic

On X-ray examination of the 59-year-old patient, in the lower lobe of the right lung there was detected a distinct shadow, differential for tumor. It was pre-determined that the tumor is benign. Which of the following features characterized the tumor as benign? (2019, 170)

- +Expansive growth
- Metastasis
- Cancer cachexia
- Invasion in surrounding tissues
- Infiltrating growth

A 49-year-old woman who suffers from diabetes for a long time has weakness, paleness, palpitation, anxiety, double vision, numbness of lips and the tip of the tongue after insulin administration. The blood glucose level is 2.5 mmol/l. Which of the following complication does this patient develop? (2019, N 173)

- +Hypoglycemic coma

Uremic coma  
 Hyperosmolar coma  
 Hyperketonemic coma  
 Hyperglycemic coma

The patient is presented to the hospital with the phenomena of growing respiratory failure. He has clinical signs of bilateral subtotal pneumonia. The clinical diagnosis is confirmed by X-ray examination. What type of respiratory failure does this patient most likely have? (2019, N 179)

+Restrictive  
 Peripheral  
 Thoracic diaphragm  
 Obstructive  
 Central

A patient suffers from Down's disease that manifests as mental retardation, shortness of stature, pathologically short fingers and toes, and eyes with mongoloid slant. Karyotype analysis revealed trisomy 21. What group of diseases does this pathology belong to? (2018, N 3)

+Chromosomal disorders  
 Molecular genetic disease  
 Gametopathy  
 Fetopathy  
 Blastopathy

Hormones regulate numerous metabolic processes. What hormone activates glycogen synthesis? (2018, N 4)

+Insulin  
 Adrenaline  
 Vasopressin  
 Thyroxine  
 Oxytocin

A patient has developed anuria. Blood pressure is 50/20 mm Hg. What process of uropoiesis was disturbed resulting in acute decrease of urine output? (2018, N 21)

+Glomerular filtration  
 Obligate reabsorption  
 Facultative reabsorption  
 Tubular secretion

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A 12-year-old boy is of short stature, but his mental development corresponds with that of his age group. What hormone deficiency is the most likely to cause this pathology? (2018, N 22)

+Somatotropin  
 Insulin

Oxytocin  
 Vasopressin  
 Adrenaline

A 10-year-old child has height of 178 cm and body mass of 67 kg. These presentations are caused by the functional disturbance of the: (2018, N 23)

+Pituitary gland  
 Thyroid gland  
 Gonads  
 Adrenal glands  
 Parathyroid glands

Any damage to the patient's vessels results in persistent hemorrhage. Blood clotting factor VIII is deficient in the patient's blood. What disease does this patient suffer from? (2018, N 33)

+Hemophilia  
 Acute vascular purpura  
 Thrombocytopenic purpura  
 Anemia  
 Radiation sickness

To induce diabetes mellitus in a rabbit,  $\beta$ -cells of pancreatic islets (islets of Langerhans) were selectively damaged with alloxan. What method of diabetes induction was used in this experiment? (2018, N 36)

+Shutdown  
 Irritation  
 Introduction of enzymes, hormones  
 Isolated organs  
 Stimulation

A patient presents with persistent tachycardia, exophthalmos, high excitability, increased basal metabolic rate. What disorder can lead to the development of this syndrome? (2018, N 39)

+Hyperthyroidism  
 Hypoparathyroidism  
 Hypothyroidism  
 Hyperparathyroidism  
 Adrenal hypofunction

A patient, who lives in the area with specific geochemical conditions, was diagnosed with endemic goiter. What microelement deficiency results in development of this pathology? (2018, N 53)

+I  
 Cl  
 Br  
 F

Na

On examination the patient's sclera and oral mucosa are icteric. What biochemical blood value can be expected to be increased? (2018, N 59)

+Bilirubin

Amylase

Glucose

Albumin

Cholesterol

A 25-year-old man has an appointment with the dentist. Several minutes after his oral cavity was lavaged with furacilin (nitrofurazone) the patient developed significant labial edema. What type of allergic reaction is observed in this case? (2018, N 71)

+Anaphylactic

Delayed-type hypersensitivity

Cytolytic

Stimulated

Immune complex

A patient with gastric carcinoma has undergone several courses of radiation therapy. What system is the first to become functionally disturbed after the body was exposed to ionizing radiation? (2018, N 72)

+Blood

Nervous

Digestive

Urinary

Respiratory

During regular check-up a patient presents with enlarged thyroid gland, exophthalmos, increased body temperature, heart rate up to 110/min. What hormone should be measured in the patient's blood in this case? (2018, N 76)

+Thyroxin

Testosterone

Glucagon

Insulin

Cortisol

Insulin production in  $\beta$ -cells involves many substances. What substance gives the main signal for insulin synthesis when its concentration changes? (2018, N 80)

+Glucose

Carbon dioxide

Heparin

Hemoglobin

Urea



An ophthalmologist has detected increased time of dark adaptation in a patient. What vitamin deficiency can result in such symptom? (2018, N 82)

- +A
- C
- K
- B1
- B6

When working in the garden, a man accidentally cut his hand. The wound remained untreated. Shortly after that the wounded area developed inflammation with accumulation of exudate that contained numerous viable and degenerate neutrophils. What type of exudate is it? (2018, N 89)

- +Purulent
- Serous
- Fibrinous
- Hemorrhagic
- Catarrhal

A patient presents with persistent fever, with the difference between evening and morning temperature not exceeding 1°C. What type of fever curve is present in this patient? (2018, N 90)

- +Continuous
- Remittent
- Hectic
- Recurrent
- Intermittent

Ultraviolet irradiation is used in medicine in various physiotherapeutic procedures. What mechanism of medicinal action is characteristic of ultraviolet rays? (2018, N 99)

- +Activation of vitamin D synthesis
- Activation of drug action
- Decrease of melanin synthesis in the skin
- Intensification of cell division
- Activation of lipid peroxidation

A patient has a gallstone lodged in the common bile duct, which blocks bile supply to the intestine. What digestive process will be disturbed in this case? (2018, N 101)

- +Fat digestion
- Protein absorption
- Carbohydrate digestion
- Carbohydrate absorption
- Protein digestion

A 46-year-old patient presents with hyperactivity of creatine kinase in his blood serum. What pathology can be suspected? (2018, N 103)

+Myocardial infarction

Acute pancreatitis

Chronic hepatitis

Hemolytic anemia

Renal failure

A patient is pale, has goose bumps and chills. What stage of fever is it characteristic of? (2018, N 106)

+Temperature increase

Temperature decrease

Continuous fever

Compensation

Latent stage

Ascarids were detected in a sick child. What changes in leukogram will be the most characteristic of helminthiasis? (2018, N 107)

+Eosinophilia

Basophilia

Neutrophilia

Lymphocytosis

Monocytosis

A man received a radiation dose of 30 Gy. He presents with necrotic angina and disorders of the gastrointestinal tract. Blood tests revealed anemia, leukopenia and thrombocytopenia. What stage of acute radiation sickness is observed in the patient? (2018, N 108)

+Manifest illness stage

Prodromal stage

Latent stage

Recover-

A patient suffers from hyperchromic B<sub>12</sub>-deficiency anemia. What vitamin preparation should be prescribed in this case? (2018, N 122)

+Cyanocobalamin

Riboflavin

Vicasol (Menadione)

Thiamine chloride

Retinol acetate

After a traffic accident the driver presents with increased blood glucose. What mechanism leads to hyperglycemia in this case? (2018, N 125)

+Sympathoadrenal system activation

Increased production of somatotrophic hormone

Decreased production of insulin

Decreased production of glucagon

Decreased tone of parasympathetic nervous system

Examination of a 45-year-old man, who for a long time kept to a vegetarian plant based diet, revealed him to have negative nitrogen balance. What peculiarity of his diet has caused such developments? (2018, N 132)

+Insufficient protein content

Insufficient fat content

Insufficient vitamin content

Excessive water content

Excessive carbohydrate content

After severe emotional strain a 53-year-old man suddenly developed acute pain in the heart area, which irradiates to the left hand, to the neck, and under the left scapula. He noted numbness of his left hand. His face is pale and covered in cold sweat. Nitroglycerine administration stopped the pain attack after 10 minutes had passed. What is the most likely disease in this case? (2018, N 133)

+Angina pectoris

Stroke

Myocardial infarction

Pulmonary embolism

Somatoform autonomic dysfunction

During ultrasound investigation a patient was diagnosed with bilateral renal artery stenosis of atherosclerotic genesis. Specify the bioactive substance that due to its excessive secretion is the key component of arterial hypertension pathogenesis in the given case: (2018, N 138)

+Renin

Cortisol

Vasopressin

Noradrenaline

Thyroxin

At the end of his shift a worker of the steel foundry felt dizziness, his body temperature increased to 38.50C. What condition does he present with? (2018, N 143)

+Hyperthermia

Decompression

Fever

Hypothermia

Hypertension

A patient in the state of ketoacidotic coma presents with loud rapid respiration: labored expiration with tension of expiratory muscles occurs after deep inspiration. Name this type of pathologic respiration (2018, N 157)

+Kussmaul's

Cheyne-Stokes'  
Gasping  
Stenotic  
Biot's

A woman complains of itching lips; they are reddened and covered in scabs and scales after she had been using new lipstick for two weeks. What allergic reactions result in this kind of disorders? (2018, N 169)

+Delayed  
Cytotoxic  
Immune complex  
Anaphylactic  
Stimulating

What ion increases osmotic pressure in the focus of inflammation? (2018, N 188)

+Potassium  
Calcium  
Fluorine  
Magnesium  
Chlorine

A 55-year-old man came to a doctor with complaints of acute pain in his big toes. Meat and wine are a permanent fixture in his diet. The doctor suspects gout. What substance must be measured in the patient's blood to confirm this diagnosis? (2018, N 189)

+Uric acid  
Urea  
Lactate  
Bilirubin  
Ketone bodies

Upon examination the ophthalmologist diagnosed a 21-year-old woman with visual impairment - hemeralopia ("night blindness"). What drug should this patient take to restore her vision? (2018, N 193)

+Retinol acetate  
Ergocalciferol  
Suprastin (Chloropyramine)  
Cholecalciferol  
Sustac forte (Nitroglycerin)

Parents of a 10-year-old child have made an appointment with an endocrinologist due to complaints of the child's low height. The child's appearance is corresponding with that of a 5-yearold. What hormone causes such changes in physical development, if its secretion is disturbed? (2017; 2016, N 16, TB; 2014, N 7, TB)

+Somatotropic hormone

Adrenocorticotrophic hormone  
Thyroxin  
Testosterone  
Insulin

An injured person exhibits the following signs at the site of trauma: skin redness, throbbing small arteries, elevated local temperature, increased tissue turgor. What local blood circulation disorder are these presentations typical of? (2017; 2016, N 26, TB; 2013)

+Arterial hyperemia  
Venous hyperemia  
Thrombosis  
Embolism  
Ischemia

A person has been stung by a bee. The stung area developed redness and edema. What is the main mechanism of edema development? (2017)

+Increased permeability of the capillaries  
Decreased oncotic blood pressure  
Increased hydrostatic blood pressure  
Decreased osmotic blood pressure  
Disturbed lymphatic efflux

Nicotinic acid amide fulfills important metabolic function. What disorder develops, when it is deficient in the organism? (2017)

+Pellagra  
Rickets  
Anemia  
Xerophthalmia  
Beriberi

A patient was delivered into a resuscitation unit with signs of alcohol poisoning. The patient developed hypoxia of the following pathogenesis: (2017)

+Tissue  
Hypoxic  
Hemic  
Circulatory  
Mixed

Prolonged taking of cytostatic agents resulted in development of necrotic tonsillitis in the patient. It can be associated with the following changes in the leukocyte content: (2017)

+Agranulocytosis  
Neutrophilic leukocytosis  
Lymphopenia  
Eosinopenia

## Lymphocytosis

A patient with type I diabetes mellitus developed hyperketonemic coma. What acid-base imbalance will be observed in the patient? (2017)

+Nongaseous acidosis

Gaseous acidosis

Nongaseous alkalosis

Gaseous alkalosis

There will be no acid-base imbalances

Hyperlipemia can be observed in 2-3 hours after eating fatty food. 9 hours later lipid content normalizes again. How can this condition be characterized? (2017)

+Alimentary hyperlipemia

Transport hyperlipemia

Hyperplastic obesity

Retention hyperlipemia

Hypertrophic obesity

A patient presents with icteric sclera and mucous tunics; urine is dark; feces are light-colored. Blood content of direct and indirect bilirubin is increased, urine content of direct bilirubin is increased. What pathology can be characterized by these signs? (2017)

+Obstructive jaundice

Hemolytic jaundice

Hepatocellular jaundice

Jaundice of the newborn

Atherosclerosis

The patient presents with rapid growth of a tumor node and its progressing malignization. What stage of tumor growth can be characterized by these presentations? (2017)

+Progression

Promotion (activation)

Transformation

Exudation

Inactivation

A 55-year-old man, who had been suffering from mitral insufficiency for many years, developed acute heart failure. What pathophysiological type of heart failure can be observed in this case? (2017)

+Due to cardiac overload

Due to hypoxic damage to the heart

Due to coronarogenic damage to the heart

Due to neurogenic damage to the heart

Due to acute cardiac tamponade

Cataract (lenticular opacity) has developed in a 52-year-old woman with diabetes mellitus. Lenticular opacity was caused by intensification of the following processes: (2017; 2016, N 125, TB; 2015, N 128, TB)

+Protein glycosylation

Lipolysis

Ketogenesis

Protein proteolysis

Gluconeogenesis

A patient suffers from hyperchromic B<sub>12</sub>-deficiency anemia. What vitamin preparation should be prescribed in this case? (2017)

+Cyanocobalamin

Riboflavin

Vicasol (Menadione)

Thiamine chloride

Retinol acetate

A 54-year-old man requested a pharmacist's advice on drug prescription. The patient has 4-year-long history of chronic glomerulonephritis and 2-yearlong history of persistent hypertension. What substance synthesized in the kidneys has important role in development of arterial hypertension? (2017)

+Renin

Nitric oxide

Aldosterone

Histamine

Catecholamines

A patient complains of general weakness, muscle weakness in the extremities (if the patient is asked to make a fist several times in a row, for example, the patient is capable of doing it only once), facial muscles are weak, swallowing is disturbed. Administration of acetylcholinesterase drugs removes these disturbances to a certain degree. Determine the pathology: (2017)

+Myasthenia

Paralysis

Paresis

Hemiplegia

Monoplegia

A 71-year-old woman developed mechanical jaundice due to obstruction of the bile duct with a chololith. Decrease of blood pressure and bradycardia are detected. These changes in functioning of the patient's cardiovascular system are caused by increased blood content of the following substance: (2017)

+Bile acids

Direct bilirubin

Indirect bilirubin

Urobilin

### Stercobilin

A 5-year-old child presents with abdominal distension, abdominal cramps, and diarrhea occurring 1-4 hours after drinking milk. Described symptoms are caused by the lack of enzymes that break up: (2017; 2015, N 154, TB)

+Lactose

Glucose

Maltose

Saccharose

Fructose

During routine preventive examination the local pediatrician noticed a boy of short stature. Mental development of the child corresponds with his age. What endocrine disorder is it? (2017)

+Pituitary nanism

Cretinism

Acromegalia

Gigantism

Rickets

A 25-year-old-patient with the II degree thermal burns came to a doctor. Objectively: there are large blisters on the upper limbs; the blisters are filled with clear exudate containing mostly water and albumines with isolated leukocytes. Name the type of the exudate: (2017)

+Serous

Catarrhal (mucous)

Fibrinous

Purulent

Hemorrhagic

A patient with brain edema presents with respiration that is characterized by periods of several respiratory movements of equal amplitude alternating with periods of apnea. What pathologic respiration is it characteristic of? (2017)

+Biot's respiration

Gasping respiration

Apneustic respiration

Cheyne-Stokes' respiration

Kussmaul's respiration

A patient in the state of ketoacidotic coma presents with loud rapid respiration: labored expiration with tension of expiratory muscles occurs after deep inspiration. Name the type of pathologic respiration: (2017; 2016, N 192, TB)

+Kussmaul's

Cheyne-Stokes'

Gasping

Stenotic



Biot's

In 9 days after administration of a therapeutic serum the patient developed urticaria, itching, edemas, and lymph nodes enlargement. What type of allergic reaction has occurred in the patient? (2017)

+Immune complex

Cytotoxic

Anaphylactic

Stimulating

Cellular

Exudation is characteristic of inflammation. What factors cause exudation and local edema of the inflamed area? (2017)

+Increased permeability of vessel wall

Hyperglycemia

Ischemia

Leukocyte adhesion to endothelial cells

Decreased permeability of vessel wall

A 55-year-old man came to a doctor with complaints of acute pain in his big toes. Meat and wine remain permanently in his diet. The doctor suspects gout. What substance must be measured in the patient's blood to confirm this diagnosis? (2017)

+Uric acid

Urea

Lactate

Bilirubin

Ketone bodies

The patient's large-focal myocardial infarction is complicated with pulmonary edema. What disturbance of cardiohemodynamics contributed to the pulmonary edema development? (2017)

+Acute left ventricular failure

Acute right ventricular failure

Autoimmune myocarditis

Cardiogenic shock

Reperfusion syndrome

A patient has developed anuria. Blood pressure is 50/20 mm Hg. What process of uropoiesis caused acute decrease of urination? (2016, N 5, TB)

+Glomerular filtration

Obligate reabsorption

Facultative reabsorption

Tubular secretion

In an emergency situation a scuba diver has quickly risen from the depth to the

surface in violation of safety regulations. He is unconscious, presents with respiratory failure and cardiac activity disorder as the result of decompression sickness. What complication can develop in the scuba diver? (2016, N 15, TB) (2015, N 12, TB)(2013, 2012)

+Gas embolism

Fat embolism

Air embolism

Cellular embolism

Thromboembolism

A patient complains of tachycardia, insomnia, weight loss, irritability, sweating. Objectively: the patient has goiter and slight exophthalmos. What gland is affected, and what functional disorder is it? (2016, N17, TB)

+Hyperthyroidism

Hypothyroidism

Hyperparathyroidism

Hypoparathyroidism

Adrenomedullary hyperfunction

A patient has been hospitalised with pneumonia. What kind of respiratory failure does the patient have? (2016, N 19, TB)

+Restrictive

Obstructive

Central

Peripheral

Thoracic diaphragm

In the state of fright the following signs can be observed: acute pallor of face, tremor of extremities. What kind of ischemia can be observed in such a condition? (2016, N 20, TB)

+Angiospastic

Compression

Obstructive (thrombus)

Metabolic

Obstructive (vascular wall thickening)

At the sixth month of pregnancy a woman has been diagnosed with severe iron-deficiency anemia. Appearance of the following elements in her blood became the diagnostic character: (2016, N 35, TB) (2015, N 37, TB)

+Hypochromic erythrocytes

Macrocytes

Megalocytes

Reticulocytes

Erythroblasts

An ophthalmologist has detected increased time of dark adaptation in a patient.

What vitamin deficiency can result in such symptom? (2016, N 81, TB)

- +A
- C
- K
- B1
- B6

A 70-year-old patient presents with cardiac and cerebral atherosclerosis. Examination revealed changes of blood lipid spectre. Increase of the following lipoproteins plays a significant role in atherosclerosis pathogenesis: (2016, N 82, TB)

- +Low-density lipoproteins
- Very low-density lipoproteins
- Intermediate density lipoproteins
- High-density lipoproteins
- Chylomicrons

During containment measures following Chernobyl Nuclear Power Plant disaster a worker has been exposed to a dose of ionizing emission of 6 Gy (600 R). The worker complains of general fatigue, nausea, dizziness, labile blood pressure and heart rate, short-term leukocytosis with lymphopenia. What stage of acute radiation sickness can be characterized by such presentations? (2016, N 83, TB)

- +Prodromal
- Manifest
- Latent
- Recovery
- Long-term consequences

A woman noticed that a cut on her skin was still bleeding even after 20 minutes had passed. What vitamin deficiency causes such condition? (2016, N 88, TB) (2015, N 83, TB)

- + Vitamin K
- Vitamin A
- Vitamin D
- Vitamin E
- Vitamin B12

An elderly man exhibits low levels of red blood cells and hemoglobin in blood; however, his color index is 1,3. Blood smear analysis revealed megaloblasts. What type of anemia is observed in this case? (2016, N 98, TB)

- +B12-folic acid deficiency
- Iron-deficiency
- Acquired hemolytic
- Hereditary hemolytic
- Chronic posthemorrhagic

After drinking milk a 1-year-old child developed diarrhea, flatulence. The baby is likely to have deficiency of the following enzyme: (2016, N 100, TB) (2015, N 94, TB)

- +Lactase
- Maltase
- Aldolase
- Hexokinase
- Glycosidase

A patient with alcoholic cirrhosis complains of general weakness and dyspnea. The following is revealed: decrease of blood pressure, ascites, dilation of superficial veins of the stomach anterior wall, esophageal varicose veins dilatation, splenomegaly. What hemodynamics disorder does the patient suffer from? (2016, N 111, TB) (2015, N 104, TB) (2014, N 134, TB)(2012)

- +Portal hypertension
- Left ventricular failure
- Right ventricular failure
- Cardiac insufficiency
- Collapse

A patient has icteric skin; unconjugated bilirubin content in blood is high; conjugated bilirubin in urine is not detected. There is significant amount of urobilin in urine and stercobilin in feces. Name the pathology characterized by given symptoms: (2016, N118, TB) (2015, N 117, TB) (2014, N 155, TB)

- +Hemolytic jaundice
- Obstructive jaundice
- Jaundice of the newborn
- Hepatocellular jaundice
- Atherosclerosis

A 46-year-old patient was found to have hyperactivity of creatine kinase in the blood serum. What pathology can be suspected? (2016, N 121, TB) (2015, N 124, TB)

- +Myocardial infarction
- Acute pancreatitis
- Chronic hepatitis
- Hemolytic anemia
- Renal failure

A patient with pulmonary carcinoma has developed a case of pleurisy. Large amount of hemorrhagic exudate was obtained for analysis. What component is specific for hemorrhagic exudate? (2016, N 123, TB)

- +Erythrocytes
- Leukocytes
- Platelets

Fibrin

Pus

A man received a radiation dose of 30 Gy. He presents with necrotic angina, disorders of the gastrointestinal tract. Blood tests revealed anemia, leukopenia and thrombocytopenia. What stage of acute radiation sickness is observed in the patient? (2016, N 127, TB)

+Manifest illness stage

Prodromal stage

Latent stage

Recovery

-

A patient with croupous pneumonia presents with sharp increase of body temperature up to 39<sup>0</sup>C, which persisted for 9 days with daily amplitude of 1 degree. What temperature curve could be observed? (2016, N 129, TB)

+Stable

Hectic

Septic

Recurrent

Atypical

A patient of a neurology unit suffers from paralysis of all limbs. Name this condition: (2016, N 158, TB)

+ Tetraplegia

Paraplegia

Hemiplegia

Paresis

Hypodynamia

The most severe and dangerous complication of diabetes mellitus is hypoglycemic coma that is characterized by loss of consciousness and is lethal, unless efficient emergency treatment is received by patient. What is the main pathogenetic component of hypoglycemic coma? (2016, N 159, TB)

+Carbohydrate deficiency and low energy of cerebral neurons

Carbohydrate deficiency and low energy of myocardium cells

Blood hyperosmia

Noncompensated ketoacidosis

Respiratory alkalosis

A woman complains of nausea, vomiting, skin itch. She was diagnosed with mechanical jaundice. What is the possible cause of skin itch in such a condition? (2016, N 165, TB)

+Bile acids accumulating in the blood

Increased blood content of indirect bilirubin

Cholesterol accumulating in the blood

Direct bilirubin appearing in the blood

Erythrocyte disintegration products accumulating in the blood

During ultrasound investigation a patient has been diagnosed with bilateral stenosis of renal artery with atherosclerotic genesis. Specify the bioactive substance that due to its excessive secretion is the key component of arterial hypertension pathogenesis in the given case: (2016, N 168, TB) (2015, N 159, TB)

+Renin

Cortisol

Vasopressin

Noradrenaline

Thyroxin

Modelling of immobilization stress is performed on a test animal – guinea pig – that starved for a day. Dissection revealed hyperemic gastric mucosa with multiple erosions. What theory of ulcer formation is confirmed by this test? (2016, N 188, TB)

+Corticovisceral (stress)

Vascular

Inflammatory

Mechanical

Peptic

A 40-year-old man presents with rapid weight gain after he had suffered a severe craniocerebral trauma. On examination the patient's weight was 125 kg, with his height being 175 cm. What mechanism of obesity development is the most likely in this case? (2016, N 195, TB) (2015, N 195, TB)

+Hypothalamic

Alimentary

Hormonal

Hereditary

-

A victim of a traffic accident is hospitalized at a resuscitation unit. Objectively: the patient is unconscious, BP is 90/60 mm Hg, high blood content of creatinine and urea is observed, diurnal diuresis is 80 ml. Characterize the patient's diurnal diuresis: (2015, N 2, TB)

+Anuria

Oliguria

Polyuria

Pollakiuria

Nocturia

A newborn child born from Rhnegative mother in the result of her third pregnancy presents with gradually worsening jaundice, irritated central nervous system, anemia. What type of jaundice does the infant suffer from? (2015, N 10, TB)

- +Hemolytic
- Hepatocellular
- Obstructive
- Parasitic
- Toxic

The patient has been hospitalised with pneumonia. What kind of respiratory failure does the patient have? (2015, N 13, TB) (2014, N 9, TB)

- +Restrictive
- Obstructive
- Central
- Peripheral
- Thoracic diaphragm

What disorder of local circulation is characterized by pallor, local temperature drop, pain, local sensitivity disorder, reduction of the organ volume? (2015, N 21, TB)

- +Ischemia
- Venostasis
- Thrombosis
- Embolism
- Arterial hyperemia

Heart rate of a person at rest is 40/min. What structure is the pacemaker of heart in this man? (2015, N 23, TB)

- +Atrioventricular node
- Sinoatrial node
- His' bundle
- His' bundle branches
- Purkinje fibers

The volume of air exhaled by a healthy person during quiet breathing was measured with a spirometer and determined to be 0,5 liter. What is this volume called? (2015, N 24, TB)

- +Tidal volume
- Inspiratory reserve volume
- Expiratory reserve volume
- Vital capacity of lungs
- Residual volume

A patient has been taking diclofenac sodium for a long time. A family physician withdrew this drug and prescribed celecoxib. What disease was the cause of drug substitution? (2015, N 25, TB)

- +Peptic ulcer
- Bronchial asthma
- Urolithiasis

Arterial hypertension

Chronic hepatitis

Diet of a human must contain vitamins. What vitamin is usually prescribed for treatment and prevention of pellagra? (2015, N 53, TB)

+Vitamin PP

Vitamin C

Vitamin A

Vitamin B1

Vitamin D

A 22-year-old man was stung by bees; the affected area became hyperemic and edematous. What is the leading mechanism of edema development in this patient? (2015, N 59, TB)

+Increased permeability of the capillaries

Decreased hydrostatic blood pressure in the capillaries

Increased oncotic pressure of tissue fluid

Impaired lymphatic efflux

Reduced oncotic pressure of blood

A patient has obstruction of the common bile duct. Which of these substances is usually found in urine in such cases? (2015, N 60, TB) (2013, 2012)

+Bilirubin

Ketone bodies

Uric acid

Creatinine

Glucose

A patient with systemic lupus erythematosus has developed diffuse affection of kidneys followed by proteinuria, hypoproteinemia, extensive swelling. What mechanism of proteinuria development is the most likely in this case? (2015, N 63, TB)

+Autoimmune disorder of the nephron glomerulus

Inflammatory disorder of the nephron tubule

Ischemic disorder of the nephron tubule

Increased concentration of blood proteins

Disorder of the urinary tracts

A 40-year-old man diagnosed with gastric ulcer has developed the symptoms anew after a long period of dormancy. Such disease course can be characterized as a: (2015, N 92, TB)

+Recurrence

Remission

Recovery

Latency

Prodromal phase



An elderly patient exhibits low levels of red blood cells and hemoglobin in blood, but the color index is 1,3. Blood smear analysis revealed megaloblasts. What type of anemia is observed in this case? (2015, N 93, TB)

+B<sub>12</sub>-folic acid deficiency

Iron-deficiency

Acquired hemolytic

Hereditary hemolytic

Chronic posthemorrhagic

A man presents with signs of albinism: blonde hair, extreme photosensitivity, impaired vision. What amino acid metabolism is disrupted in the patient? (2015, N 95, TB)

+Tyrosine

Methionine

Proline

Histidine

Valine

A patient complains of pain in the small joints. High concentration of uric acid is detected in his blood plasma. What pathology causes such changes? (2015, N 118, TB)

+Gout

Diabetes mellitus

Phenylketonuria

Lesch-Nyhan syndrome

Diabetes insipidus

A patient suffering from coronary heart disease, who had had two myocardial infarctions of left ventricular wall, presents with bubbling breathing and dyspnea. Pulmonary auscultation reveals numerous moist crackles. What kind of heart failure is it? (2015, N 122, TB)

+Left ventricular

Right ventricular

Compensated

Subcompensated

Combined

A man received a radiation dose of 30 Gy. He presents with necrotic angina, disorders of the gastrointestinal tract. Blood tests revealed anemia, leukopenia and thrombocytopenia. What period of acute radiation sickness is observed in the patient? (2015, N 130, TB)

+Height of disease

Primary reactions

Imaginary wellbeing

End of disease

In the course of an experiment in the mesenteric vein of a toad a thrombus was created with a crystal of common salt. What processes occurred during the first stage of thrombus formation? (2015, N 131, TB)

+ Adhesion, aggregation, agglutination of platelets

Production of active thromboplastin

Production of thrombin

Production of fibrin monomer

Production of fibrin polymer

A patient has a mental disorder due to the insufficient synthesis of gammaaminobutyric acid in the brain. Such pathological changes might be caused by the deficiency of the following vitamin: (2015, N 135, TB)

+Pyridoxine

Tocopherol

Cyanocobalamin

Folic acid

Riboflavin

A patient suffers from mucosal dryness and mesopic vision disorder. What vitamin deficiency causes these symptoms? (2015, N 149, TB)

+A

P

E

C

D

A patient was visiting a pharmacy, when he suddenly felt unwell. He developed palpitations, rapid heart rate, pain in the chest that after several minutes spread to the left scapula and left side of the head. What condition should be considered first? (2015, N 168, TB)

+Ischemic heart disease

Peptic gastric ulcer disease

Dysphagia

Pneumonia

Somatoform autonomic dysfunction

A 25-year-old-patient with the II degree thermal burns addressed a doctor. Objectively: there are large blisters on the upper limbs; the blisters are filled with clear exudate containing mostly water and albumines with isolated leukocytes. Name the type of the exudate: (2015, N 181, TB)

+Serous

Catarrhal (mucous)

Fibrinous

Purulent

Hemorrhagic

After ischemic stroke a 67-year-old patient developed reduced mobility of the left leg. Name this condition: (2015, N 192, TB)

+Paresis

Paralysis

Myasthenia

Hyperkinesia

Tremor

A 32-year-old patient with cerebellar tumor was delivered to an admission room of a hospital. The patient presents with ataxia that can be characterized by: (2015, N 193, TB)

+Disrupted coordination of movements

Involuntary contraction of skeletal muscles

Increased muscle tone

Pathological reflexes

Irregular force and direction of movements