

# Database of questions for the Medical Final Examination (LEK)

## Part 2

### Pediatrics

Modified 15.12.2023

**No 1.** Obstruction reversibility test ( bronchodilation test ) is based on administration of:

- A. short-acting beta-2 mimetic and FEV1 designation in the flow-volume curve test.
- B. fast-acting beta blocker and FEV1 designation in the flow-volume curve test.
- C. budesonide and FVC designation in the flow-volume curve test.
- D. anti-leukotrien and PEF designation in the flow-volume curve test.
- E. salbutamol and FVC designation in the flow-volume curve test.

**No 2.** A positive result of the reversibility test of bronchial obstruction means.

- A. increase in FVC by a minimum of 5% after administration of inhaled steroid.
- B. increase in FEV1 by a minimum of 12% after bronchodilation drug.
- C. 20% increase in PEF after inhalation budesonide.
- D. 40% increase in MEF50 after administration of salbutamol.
- E. a 15% decrease in FEV1 after anticholinergic administration.

**No 3.** The etiological factor of subluminal laryngitis in kindergarten children is:

- A. *Haemophilus influenzae*.
- B. *Streptococcus pneumoniae*.
- C. parainfluenza viruses, influenza viruses and adenoviruses.
- D. *Mycoplasma pneumoniae*.
- E. *Streptococcus agalactiae*.

**No 4.** The most common etiological factors of neonatal pneumonia include.

- A. influenza viruses and adenoviruses.
- B. rinoviruses.
- C. group B streptococci, *Enterobacteriaceae*.
- D. *Mycoplasma pneumoniae*.
- E. *Chlamydia pneumoniae*.

**No 5.** According Hanifin and Rajko, the major criteria for the diagnosis of atopic dermatitis in children **do not include** .

- A. pruritis.
- B. chronic and recurring course of the disease.
- C. typical location of skin lesions.
- D. white dermatographism.
- E. atopy in the patient or in the family history.

**No 6.** What is the first line medicine used in the treatment of moderate exacerbation of bronchial asthma in a 7-year-old child?

- A. formoterol.
- B. salbutamol.
- C. salmeterol.
- D. prednisone.
- E. amoxicillin.

**No 7.** The treatment of choice for pneumonia of *Chlamydia pneumoniae* etiology in an 8-year-old child is to use:

- A. tetracycline.
- B. amoxicillin.
- C. macrolides.
- D. inhaled glucocorticoids.
- E. second generation cephalosporins.

**No 8.** The first-line treatment of acute pharyngitis and tonsillitis caused by *Streptococcus pyogenes* is the use of:

- A. tetracycline orally.
- B. amoxicillin intravenously.
- C. macrolides.
- D. inhaled glucocorticoids.
- E. phenoxymethylpenicillin orally.

**No 9.** The treatment of choice for acute bacterial otitis media in children is the use of:

- A. tetracycline.
- B. amoxicillin.
- C. lincosamides.
- D. oral glucocorticoids.
- E. phenoxymethylpenicillin.

**No 10.** Which of the following drugs should be used as the first line drug for the treatment of anaphylactic shock in a child?

- A. adrenaline at a dose of 0.01 mg / kg b.w. intramuscularly in the deltoid muscle.
- B. adrenaline at a dose of 0.001 mg / kg b.w. intramuscularly in the lateral surface of the quadriceps muscle.
- C. adrenaline at a dose of 0.01 mg / kg bw intramuscularly in the anterolateral surface of the quadriceps muscle of the thigh.
- D. adrenaline at a dose of 0.001 mg / kg bw intramuscularly in the deltoid muscle.
- E. hydrocortison at a dose of 5 mg orally.

**No 11.** In a 5-year-old, previously healthy boy, eyelid oedemas appeared which were treated for 2 weeks by the GP as allergic oedema. Following the ineffective therapy, the child presented again. On physical examination, the body temperature was 36.5 ° C, heart rate – 90 /min., RR – 90/55 mmHg, face significantly swollen, there was pitting oedema on the back of the feet and lower legs. In the general urine test: protein – 4.5 g / L, SG. 1030. Serum albumin concentration – 10 g / L, cholesterol – 320 mg / dL. What should you suspect?

- A. idiopathic nephrotic syndrome.
- B. acute glomerulonephritis.
- C. acute pyelonephritis.
- D. renal vein thrombus.
- E. angioedema.

**No 12.** What does the neonatal screening test for congenital primary hypothyroidism consist in?

- A. determination of serum T4 concentration.
- B. determination of plasma T3 and T4 concentration.
- C. determination of TSH concentration in a dry blood drop.
- D. determination of TSH and fT3.
- E. screening tests for primary hypothyroidism are not performed in neonates.

**No 13.** The major (basic) criteria in the diagnosis of atopic dermatitis are:

- 1) pruritis.
- 2) chronic and recurring course of the disease.
- 3) characteristic location and nature of skin lesions.
- 4) elevated serum IgE.
- 5) systemic blood eosinophilia.

The correct answer is:

**A.** all of the above.    **B.** 1,2,3,5.    **C.** 1,2,3.    **D.** 3,4,5.    **E.** only 5.

**No 14.** The first-line drug in the chronic treatment of bronchial asthma in children over 5 years of age is:

- A.** inhaled corticosteroid at low doses.
- B.** short-acting beta-blocker.
- C.** theophylline.
- D.** oral glucocorticoids.
- E.** antihistamine drugs.

**No 15.** The typical features for the recognition of Wiskott-Aldrich syndrome are:

- A.** girl, recurrent skin abscesses, impaired neutrophil function.
- B.** facial dysmorphia, weight and height deficiency, IgG subclass deficiency.
- C.** boy, thrombocytopenia, atopic dermatitis, persistent infections.
- D.** facial dysmorphia, congenital heart disease, tetany, absence or hypoplasia of the thymus gland.
- E.** mental retardation, thrombocytopenia, megaloblastic anemia.

**No 16.** The enlargement of lymph nodes in Hodgkin's lymphoma typically progresses:

- A.** slowly – the medical history is usually long.
- B.** rapidly – nodal lesions can double in size within a dozen or so hours.
- C.** in young children quickly, and in adolescents slowly.
- D.** in young children slowly, and in adolescents quickly.
- E.** in Hodgkin's lymphoma, lymph nodes are rarely enlarged.

**No 17.** What is a typical primary location of T-line lymphoblastic lymphoma?

- A.** mesenteric lymph nodes.
- B.** mediastinal lymph nodes and the thymus gland.
- C.** skin and subcutaneous tissue.
- D.** bones.
- E.** brain.

**No 18.** Metabolic markers of tumour lysis syndrome **do not include**.

- A.** hyperphosphatemia.
- B.** hypernatremia.
- C.** hyperkalemia.
- D.** hyperuricemia.
- E.** hypocalcemia.

**No 19.** The most common type of soft tissue sarcoma in children is:

- A.** rhabdomyosarcoma (RMS).
- B.** synovial sarcoma (SS).
- C.** primitive neuroectodermal tumour (PNET).
- D.** fibrosarcoma.
- E.** Ewing sarcoma.

**No 20.** An increased pulmonary flow in congenital heart defects with the left-right leakage leads to structural changes in the pulmonary arterioles, which results in the development of irreversible pulmonary hypertension, and that leads to a change in blood leakage to the right-left. Indicate the syndrome which these symptoms are characteristic for.

- A. Asperger.
- B. Eisenhower.
- C. Eisenmenger.
- D. Tourette.
- E. Downa.

**No 21.** If the incidental glucose concentration is 14 mmol / L and pollakiuria and polyuria occur, then to confirm the diagnosis of type I diabetes mellitus the following should be done:

- A. determine glucose 2 hours after meals.
- B. perform OGTT test.
- C. repeat the fasting or incidental glucose test.
- D. make the diagnosis of diabetes without performing additional tests.
- E. perform a general urine test.

**No 22.** A 13-year-old girl reported to the pediatrician with the following history: decreased concentration, deterioration of learning performance, hair loss and hands trembling, sweating. The pediatrician found a weight loss of about 3 kg over a period of 6 months. On physical examination, heart rate of 120/min at rest, blood pressure of 130/50, warm and moist skin, trembling of fingers were found. Indicate the disease which is accompanied by such symptoms.

- A. Hashimoto disease.
- B. type 1 diabetes mellitus.
- C. medullary thyroid cancer.
- D. Graves disease.
- E. hypothyroidism.

**No 23.** In the diagnosis of sympathetic embryonal neuroblastoma (neuroblastoma) in children, the determination of the following is of great diagnostic importance.

- A. serum adrenaline and noradrenaline.
- B. vanillylmandelic and homovanillic acids in daily urine collection.
- C. fasting serum glucose.
- D. ACTH and serum calcitonin.
- E. uric acid in daily urine collection.

**No 24.** The adrenal medulla, the sympathetic nervous system and one of the malignant tumours in children derive from the primary neural strip. Indicate the tumour.

- A. nephroblastoma.
- B. hepatoblastoma.
- C. retinoblastoma.
- D. non-Hodgkin lymphoma.
- E. neuroblastoma.

**No 25.** Wilm's tumour is a cancer of:

- A. ovary.
- B. kidney.
- C. adrenals.
- D. bones.
- E. brain.

**No 26.** In haemophilia B, the deficiency relates to the factor:

- A. VII.
- B. VIII.
- C. IX.
- D. XI.
- E. XII.

- No 27.** In the course of B19 parvovirus infection, the development of the following may occur.
- A. red cell aplasia.
  - B. Diamond-Blackfan anaemia.
  - C. sickle cell disease.
  - D. hereditary spherocytosis.
  - E. haemophilia A.
- No 28.** The Apgar scoring includes an assessment of the following features except for:
- A. skin colour.
  - B. respiration.
  - C. reaction to irritation with a catheter.
  - D. pulse.
  - E. temperature.
- No 29.** Hypotrophic newborn is one with a birth weight:
- A. <10 percentile.
  - B. >10 percentile.
  - C. >2000 g.
  - D. that is correct.
  - E. the definition of hypertrophy is not related to birth weight.