Database of questions for the Medical Final Examination (LEK)

Part 1

Pediatrics

Modified 21.05.2026

Question nr **1**

What drug is used for the treatment of juvenile idiopathic arthritis?

A. acetylsalicylic acid.

B. second generation cephalosporin.

C. phenoxymethylpenicillin.

D. methotrexate.

E. none of the above.

Question nr **2**

Which of the following concerning Carney syndrome **is false**?

A. is an autosomal dominantly inherited syndrome.

B. is caused by an inactivating mutation of the *PRKR1A* gene.

C. occurs after puberty, most often in men.

D. Cushing's syndrome in patients with Carney syndrome can be subclinical, cyclical and overt.

E. increase in cortisol concentration is observed after dexamethasone administration.

Question nr **3**

Congenital metabolic disorders should be considered when there is an episode of:

A. non-immune fetal hydrops.

B. signs suggestive of Reye's syndrome.

C. convulsions and/or apnea in a child without signs of an infection.

D. A,B,C are true.

E. B and C are true.

Question nr **4**

Which of the following **is not** a typical symptom of the early phase of *Streptococcus agalactiae* infection in neonates?

A. respiratory distress requiring intubation and mechanical ventilation.

B. pulmonary hypertension.

C. osteitis.

D. septic shock.

E. meningitis.

Question nr **5**

Which of the following clinical problems may indicate primary immunodeficiency?
1) six acute otitis media in a child 4 years of age during a year;
2) seven mild episodes of pharyngitis during a year in a 3-year-old child attending kindergarten;
3) purulent inflammation of the hip joint caused by *Staphylococcus aureus* in a 5-year-old child and extensive liver abscess of the same etiology at 9 years of age;
4) childhood tuberculosis in a mother, BCGitis in her son;
5) a 7-year-old unvaccinated against pneumococci boy underwent invasive pneumococcal disease; the boy had no problematic disease before and doesn't have any other health problems;
6) occurrence of three episodes of pneumonia during a year in a 12-year-old healthy girl including last episode complicated with lung abscess and pleural empyema; she had to be hospitalized for all episodes.
The correct answer is:

A. 1,3,4,6.

B. 1,3,4,5,6.

C. 3,4,5,6.

D. 2,3,4,5.

E. 1,3,5,6.

Question nr **6**

In a patient with the symptoms of acute urticaria with no allergy in anamnesis, it is necessary to order:

A. whole blood count with blood smear, CRP.

B. skin prick tests.

C. physical tests.

D. all the above.

E. none of the above.

Question nr **7**

What are the typical features of pseudohypoparathyroidism?

A. increased phosphate and cAMP urinary excretion after PTH infusion.

B. low serum calcium and high serum phosphate concentrations.

C. low serum calcium and low serum phosphate concentrations.

D. low serum PTH concentration.

E. shortened 2nd and 3rd metacarpal bones.

Question nr **8**

Indicate **false** sentences concerning vesico-ureteral reflux (VUR):
1) diagnosis is based on voiding cystourethrography;
2) we identify five grades of VUR;
3) only grade I primary VUR is treated conservatively;
4) refluxes with ureteral distension are treated surgically;
5) grade I, II, III VUR are treated conservatively.
The correct answer is:

A. only 3.

B. 3,4.

C. 1,5.

D. 2,5.

E. only 2.

Question nr **10**

A type of monogenic diabetes characterized by autosomal dominant inheritance and constantly elevated fasting glycemia which generally does not require pharmacological treatment is:

A. Wolfram syndrome.

B. DEND syndrome.

C. MODY2 diabetes.

D. MODY3 diabetes.

E. MODY5 diabetes.

Question nr **12**

In children fever and small itchy blisters that form crusts within 7 days are the symptoms of:

A. erythema infectiosum.

B. impetigo.

C. HSV infection.

D. chickenpox.

E. measles.

Question nr **13**

A patient with measles is contagious for:

A. 5 days before the rash onset and 3 days after the rash onset.

B. 5 days before the rash onset and 7 days after the rash onset.

C. 7 days before the rash onset and 7 days after the rash onset.

D. 7 days before the rash onset.

E. first 3 days of rash.

Question nr **14**

Which of the following should be performed in a male neonate in whom prolonged bleeding from the heel occurs after taking blood drop for screening tests and a hematoma develops after intramuscular administration of vitamin K?
1) examination of the clotting system in order to exclude coagulopathy, e.g. hemophilia;
2) intravenous administration of vitamin K;
3) administration of fresh frozen plasma;
4) taking family history in relation to hemophilia or other coagulopathies occurring in family members;
5) there is no need for further diagnostics.
The correct answer is:

A. 1,2,3.

B. 1,4.

C. 2,4.

D. 3,4.

E. only 5.

Question nr **15**

What is the optimal procedure after the contact of a pregnant woman in the third trimester with a child, who was diagnosed on the day of the contact (upon clinical course, typical skin manifestations) with erythema infectiosum (the fifth disease)? The child is (except for erythema) generally healthy, has no comorbidities.

A. isolate the pregnant woman form the sick child, perform serological test in the mother (in order to verify previous infection with parvovirus B19).

B. isolate pregnant woman form the sick child, wait for infection symptoms in the mother, ultrasound of the fetus.

C. to isolate the pregnant woman form the sick child, no need to expand diagnostics.

D. no need to isolate the woman from the child, no need to expand diagnostics.

E. no need to isolate the woman from the child, perform ultrasound of the fetus.

Question nr **16**

The incidence of allergic diseases is continuously growing. The basic diagnostic tool for them is:

A. provocative test.

B. blood concentration of IgE.

C. eosinophil count in peripheral blood.

D. skin prick test.

E. physical examination.

Question nr **18**

A positive direct Coombs test in a patient diagnosed with haemolysis suggests:
1) ABO haemolytic disease of the newborn;
2) Rh D haemolytic disease of the newborn;
3) hemoglobinopathy;
4) atypical haemolytic-uremic syndrome;
5) spherocytosis.
The correct answer is:

A. 1,2.

B. 3,4,5.

C. 1,2,4.

D. 4,5.

E. all the above.

Question nr **19**

Craniotabes (softening and thinning of occipital and parietal bones) may be observed in the following disorders, **except for**:

A. excess of phosphates in the diet.

B. osteopenia of prematurity.

C. osteogenesis imperfecta.

D. Ehlers-Danlos syndrome.

E. Down syndrome.

Question nr **20**

Indicate **the false** statement concerning respiratory function tests in children:

A. FEV1 parameter is used to determine the degree of bronchial obstruction.

B. withdrawal of bronchodilatators is necessary before performing spirometry tests.

C. reversibility test for bronchial obstruction is regarded as positive when FEV1 increases by at least 12% and 200 mL in relation to the initial values.

D. MEF25 and MEF50 are used to assess the airflow in medium and small airways.

E. spirometry tests are recommended in children above 4 years of age.

Question nr **21**

The symptoms of cystic fibrosis include:

A. recurrent obstructive bronchitis and pneumonia.

B. steatorrhoea.

C. chronic cough.

D. poor weight gain.

E. all of the above.

Question nr **22**

A palpable tumor visible on the neonate’s head over the left parietal bone is most probably caused by:

A. lymphatic edema.

B. cephalohematoma.

C. caput succedaneum.

D. skull hernia.

E. infantile hemangiomas.

Question nr **23**

Hepatitis A (anti-HAV IgM) IgM antibodies in children:

A. appear 12-20 days after infection and persist for 2-3 months.

B. appear 18 to 40 days after infection and persist for 4-6 months.

C. appear 24-60 days after infection and persist for 6-9 months.

D. appear 30-80 days after infection and persist for 8-12 months.

E. appear after 36-100 days after infection and persist for 10-15 months.

Question nr **24**

In a 7-year-old child, suffering from asthma treated with inhaled glucocorticoids, after a trip to the woods the aggravation of the disease occurred in the form of increasing dyspnea, cough and wheezing. The parents administered an additional dose of short-acting β_2-mimetic. The next step in this situation should be:

A. addition of a leukotriene receptor antagonist.

B. withdrawal of inhaled glucocorticoids and the introduction of long-acting β-mimetics.

C. addition of oral preparations of long-acting theophylline.

D. doubling the basic dose of inhaled glucocorticoids.

E. continuation of inhaled glucocorticoids at the same dose combined with formoterol, all in a single inhaler.

Question nr **26**

When, after streptococcal infection, do the symptoms of rheumatic fever appear?

A. during the infection.

B. immediately after the infection is over.

C. 3-4 weeks after the infection is over.

D. 2-3 months after the infection is over.

E. half a year after the infection is over.

Question nr **27**

The symptoms of asthma in children are:

A. wheezing.

B. cough.

C. expiratory dyspnea.

D. tightness in the chest.

E. all of the above.

Question nr **28**

Beckwith-Wiedemann syndrome is associated with an increased risk of developing:

A. Wilms tumor.

B. hepatoblastoma.

C. Wilms tumor and hepatoblastoma.

D. Wilms tumor and retinoblastoma.

E. retinoblastoma.

Question nr **29**

Meningitis in children is a life-threatening condition, therefore, in the case of bacterial etiology, antibiotic therapy must be implemented as soon as possible; optimally after collecting materials for microbiological examination (CSF, blood, other materials). The maximum time to administer antibiotic is:
1) up to 3 hours from the patient's first contact with medical care;
2) up to 1 hour if the patient is in the hospital ward;
3) to 30 minutes if the patient is in the hospital ward and meningococcal etiology is suspected.
The correct answer is:

A. all the above.

B. 1,2.

C. 1,3.

D. only 1.

E. only 2.

Question nr **30**

The complications of ketoacidosis include:
1) cerebral edema;
2) anuria;
3) acute pancreatitis;
4) gastrointestinal bleeding;

5) hypovolemic shock.
The correct answer is:

A. 1,2.

B. 2,3.

C. 1,2,3,4.

D. 1,2,4,5.

E. all the above.

Question nr **31**

Which of the following are observed in the course of iron deficiency anemia?
1) decreased total iron binding capacity;
2) decreased mean corpuscular hemoglobin concentration;
3) decreased percentage of the erythroblastic cells in marrow;
4) red cell poikilocytosis;
5) megaloblastic erythropoiesis in marrow.
The correct answer is:

A. 2,4,5.

B. 2,3,4.

C. 2,4.

D. 1,2,4.

E. 1,2.

Question nr **32**

In a 12-year-old patient with type 1 diabetes mellitus, treated with a personal insulin pump, hypoglycaemia occurs. It could be caused by:
1) overdose of long-acting insulin;
2) taking too high bolus dose at a meal;
3) eating less food than planned;
4) additional physical activity.
The correct answer is:

A. 1,2.

B. 2,3,4.

C. all the above.

D. 2,4.

E. 1,3,4.

Question nr **33**

A 12-year-old girl was admitted to the ward because of an acute paroxysmal abdominal pain located in the epigastrium and the right subcostal region, radiating to the right side, that appeared the previous morning. The laboratory test showed: ALT 278 U/L, AST 47 U/L, GGTP 178 IU/L, lipase 167 IU/L, amylase 248 mg%, direct bilirubin 2.06 mg%, indirect bilirubin 1.02 mg%. The most probable diagnosis is:

A. hemolytic-uremic syndrome.

B. gallstones.

C. hepatitis type A.

D. Wilson’s disease.

E. Shwachman-Diamond syndrome.

Question nr **34**

Which antipyretic may be given to a 2-month-old child?

A. 0.6 mL of ibuprofen suspension (200 mg/5 mL), i.e. 5 mg/kg/dose.

B. 1.25 mL of ibuprofen suspension (200 mg/5 mL), i.e. 10 mg/kg/dose.

C. 2.5 mL of ibuprofen suspension (200 mg/5 mL), i.e. 20 mg/kg/dose.

D. 0.75 mL of paracetamol suspension (100 mg/1 mL), i.e. 15 mg/kg/dose.

E. none, only physical methods can be used.

Question nr **35**

The most common causes of lower gastrointestinal tract bleeding in infants are:
1) Schoenlein-Henoch disease;
2) anal fistula;
3) food allergy;
4) inflammatory bowel diseases;
5) intussusception.
The correct answer is:

A. 1,2,3.

B. 2,3,5.

C. 1,3,5.

D. 2,4,5.

E. 1,2,5.

Question nr **36**

Polyuria with hypostenuria is typical of:

A. urinary tract infections.

B. febrile diseases.

C. urinary tract defects.

D. diabetes insipidus.

E. intravenous administration of albumin.

Question nr **37**

A GP diagnosed pertussis in a mother of a 3-week-old neonate. What is the correct management in this case?

A. breast feeding should be stopped for 2 weeks.

B. child should be given azithromycin for 5 days.

C. child should be given a single dose of ceftriaxone.

D. DTP vaccination should be started immediately.

E. child should be hospitalized to receive immunoglobulins intravenously.

Question nr **38**

Parents present to the GP a 6-week-old infant, born in February 2017, for vaccinations. Indicate the correct management concerning the immunisation against invasive pneumococcal disease (IPD) taking into consideration that the child was born at 36^{th} week of gestation and the birth weight was 2100 g:

A. the child is not a subject to the mandatory vaccinations against IPD but can be

vaccinated within the frame of the elective vaccinations covered financially by parents.

B. the child can be vaccinated against IPD within the frame of mandatory vaccinations (free of charge) using the schedule: two doses of primary immunisations and one booster dose.

C. the child can be vaccinated against IPD within the frame of mandatory vaccinations (free of charge) using the schedule: three doses of primary immunisations and one booster dose.

D. vaccination against IPD is contraindicated in children with a birthweight below 2500 g.

E. vaccination against IPD in children with a birthweight below 2500 g can be performed in the second half of the first year of life at the earliest.

Question nr **39**

Parents present to a pediatrician their 7-year-old child born abroad and never vaccinated against *Haemophilus influenzae* type b for deciding about the completion of the vaccination. Indicate the correct decision of the doctor:

A. missing vaccination with 1 dose of vaccine must be completed immediately.

B. missing vaccination must be completed immediately with 3 doses of vaccine using a schedule 0, 1 and 6 months.

C. missing vaccination should be completed at the age of 10 years together with the next scheduled vaccines.

D. missing vaccination should be completed at the age of 14 years together with the next scheduled vaccines.

E. there is no indication to vaccinate a 7-year old child against *Haemophilus influenzae* type b.

Question nr **40**

The well-child visit schedule up to 12 months of life should include:

A. six visits: the patronage visit, the examination at the age of 6-9 weeks, 3-4 months, 6 months, 9 months and 12 months.

B. five visits: the patronage visit, the examination at the age of 3-4 months, 6 months, 9 months and 12 months.

C. three visits: following the schedule of mandatory vaccinations.

D. four visits: the patronage visit and then following the schedule of mandatory vaccinations.

E. there are no strict recommendations on the schedule of well-child examinations and the individualized decision on the schedule should be made by the general practitioner or pediatrician.

Question nr **41**

The alarming symptoms of gastroesophageal reflux disease in children include:
1) swallowing disturbances;
2) diarrhea;
3) attacks of cough and dyspnea at night;
4) constipation;
5) weight loss.
The correct answer is:

A. 1,2,3.

B. 2,3,5.

C. 1,3,5.

D. only 2.

E. 1,4,5.

Question nr **42**

Which of the following **is not** an indication for the histopathological examination of an enlarged lymph node in a child?

A. ultrasound image suggesting a proliferating lesion.

B. adenopathy of supra- and subclavicular lymph nodes.

C. adenopathy accompanied by general symptoms: weight loss, fever without infection, pruritus.

D. neck lymph node enlargement lasting for a week, accompanying pharyngitis.

E. painless lymph node, growing for several weeks without symptoms of infection.

Question nr **43**

The most common cause of food allergy in infants is:

A. wheat.

B. soybeans.

C. cow's milk proteins.

D. egg white.

E. carrot.

Question nr **44**

The symptoms characteristic of streptococcal tonsillitis are:

A. subfebrile body temperature, severe sore throat, cough, runny nose.

B. subfebrile body temperature, severe sore throat, headache.

C. fever, severe sore throat, painful and difficult urination.

D. fever, severe sore throat, abdominal pain, vomiting.

E. none of the above.

Question nr **45**

Which of the following **is not** a criterion necessary to diagnose growing pains in children (according to Peterson and Mellson)?

A. age between 4 and 12.

B. pain does not occur daily.

C. pain always occurs in the evening or night, it never occurs in the morning.

D. positive family history of growing pains.

E. pain is symmetrical and involves thighs, popliteal regions and lower legs.

Question nr **47**

A seven-year-old girl visited her friend suffering from measles. The boy had had a rash for 6 days. What post-exposure prophylaxis should be performed in the girl?

A. measles vaccination should be given within 72 hours since the contact.

B. specific immunoglobulin should be given within 72 hours since the contact.

C. unspecific immunoglobulin should be given within 96 hours since the contact.

D. acyclovir should be given within 6 days since the contact.

E. none, there is no need for a post-exposure prophylaxis.

Question nr **48**

Which of the following is the most common cause of blindness in children in Poland?

A. cataract.

B. diabetic retinopathy.

C. retinopathy of prematurity.

D. tumors of the organ of sight (including haemangioma, sarcoma, retinoblastoma).

E. uveitis (e.g. in the course of prenatal infection).

Question nr **49**

Hypoparathyroidism occurs in the following diseases **except for**:

A. DiGeorge syndrome.

B. autoimmune polyendocrine syndrome type 1.

C. hyperparathyroidism in a pregnant mother.

D. condition after neck irradiation.

E. CaSR inactivating mutation.

Question nr **50**

Risk factors for urolithiasis **do not** include:

A. hypercalciuria.

B. hypocitraturia.

C. hyperoxaluria.

D. hypermagnesuria.

E. hyperuricosuria.

Question nr **51**

While riding a bike, a teenage boy treated with insulin for type 1 diabetes suddenly felt weakness, heart palpitations and a tremor in his hands. What should he do first of all?

A. give himself an additional dose of insulin.

B. drink 200 mL of juice.

C. go back home as quickly as possible.

D. eat a ham sandwich.

E. give himself glucagon intramuscularly.

Question nr **52**

Which of the following statements concerning food challenge test (FCT), regarded as a valuable diagnostic tool in food allergy, is **false**?

A. most frequently FCT is performed with cow milk, hen egg, peanuts, and wheat.

B. the aim of FCT is to indicate the threshold of tolerance for certain kinds of food.

C. double blind placebo controlled food challenge (DBPCFC) performed under specialist supervision is regarded as the gold standard.

D. in children with the history of anaphylaxis to certain food, FCT is usually performed after 12 months of using an elimination diet.

E. usually at least two food allergens are applied simultaneously in the food challenge test.

Question nr **53**

Indicate the **false** statement concerning the second heart sound splitting in children:

A. it occurs physiologically only on inspiration.

B. pathological split occurs most frequently in children with the atrial septal defect.

C. fixed second tone split occurs in children with pulmonary valve stenosis.

D. pathological second tone split audible on expiration is a characteristic feature of hypertrophic obstructive cardiomyopathy.

E. second heart sound splitting in a newborn always indicates a pathology.

Question nr **54**

Chronic fatigue syndrome is a complication of:

A. infectious mononucleosis.

B. hepatitis C.

C. pertussis.

D. cytomegalovirus infection.

E. mumps.

Question nr **55**

The most probable diagnosis in a patient with recurrent infections, thrombocytopenic purpura (the onset in the first six months of live) and eczema (atopic dermatitis-type) is:

A. Nijmegen syndrome.

B. hyper-IgE syndrome.

C. Bloom syndrome.

D. Netherton syndrome.

E. Wiskott-Aldrich syndrome.

Question nr **56**

The most common cause of hyperthyroidism in adolescents is:

A. subacute thyroiditis.

B. Graves' disease.

C. amiodarone induced hyperthyroidism.

D. iodine induced hyperthyroidism.

E. McCune-Albright syndrome.

Question nr **57**

A 10-year-old child with diabetes diagnosed one year ago was completely vaccinated against hepatitis B in the infancy. The parents ask whether the child needs the

revaccination against hepatitis B due to the diabetes. Which is the right answer?

A. the child does not need any further vaccinations against hepatitis B.

B. concentration of anti-HBs antibodies should be measured - if the result is higher than 10 IU/L the child does not need any additional doses of HepB vaccine.

C. concentration of anti-HBs antibodies should be measured - if the result is higher than 100 IU/L the child does not need any additional doses of HepB vaccine.

D. one booster dose of HepB vaccine should be given.

E. the child should again receive the full 3-dose schedule at 0, 1 and 6 months.

Question nr **58**

The respiratory rate in a normal active 2-year-old child **should not** exceed:

A. 20/min.

B. 30/min.

C. 40/min.

D. 50/min.

E. 60/min.

Question nr **59**

Indicate the true statement concerning vesicoureteral reflux:

A. it occurs in boys only.

B. it is isolated defect.

C. incidence of urinary tract infections is increased in children with this defect.

D. it is always bilateral.

E. it is never a familial defect.

Question nr **60**

A neonate is regarded as born prematurely if the pregnancy lasted less than:

A. 37 weeks and their birth weight is <2500 g.

B. 37 weeks and their birth weight is <1500 g.

C. 40 weeks.

D. 38 weeks.

E. 37 weeks or 259 days.

Question nr **61**

Which of the following rise a suspicion of disturbances of the urea cycle in a neonate:
1) vomiting after the first feeding with proteins in a previously healthy neonate;
2) sudden loss of appetite, tremor, seizures, decreased muscle tone, sleepiness or coma in a previously healthy neonate;
3) agitation and generalized rigidity in a previously healthy neonate;
4) increased concentrations of ammonia in serum;
5) decreased concentrations of ammonia in serum.
The correct answer is:

A. 1,3,4.

B. 1,3,5.

C. 1,2,4.

D. 1,2,5.

E. 3,5.

Question nr **62**

Apart from careful history taking, skin prick tests (SPT) are a crucial diagnostic tool in allergology. Indicate the true statements concerning SPT in children:
1) SPT is not recommended in children younger than 3 years;
2) in the case of allergy to airborne allergens, the result of SPT in children strongly correlates with the clinical symptoms of the disease;
3) SPT indicate the presence of allergen-specific IgE on skin mast cells;
4) when IgE-mediated food allergy (e.g. to vegetables or fruit) is suspected, SPT with a native allergen may be performed;
5) size of erythema to specific allergen is important for the interpretation of SPT results.
The correct answer is:

A. 1,2,3.

B. 3,4.

C. 1,2,3,5.

D. 2,3,4.

E. all the above.

Question nr **63**

Which of the following can be found in a child with somatotropic pituitary insufficiency (growth hormone deficit):
1) low birth-weight;
2) normal bone and dental age;
3) decreased rate of growth at the preschool age;
4) signs of increased intracranial pressure caused by a tumor (e.g. craniopharyngioma).
The correct answer is:

A. all the above.

B. 1,2,3.

C. 1,3,4.

D. 2,3.

E. 3,4.

Question nr **64**

Indicate the true statements concerning the severe combined immunodeficiency (SCID):
1) it is a genetic disorder consisting in the absence or dysfunction of lymphocytes T that may be accompanied by the absence of lymphocytes B, NK or other cells of the hematologic system;
2) it is the most common type of primary immunodeficiency in children;
3) if left untreated it usually leads to death in the first year of life;
4) hematopoietic cell transplantation may result in permanent cure;
5) it may be radically treated by regular administration of immunoglobulins.
The correct answer is:

A. 1,2,4.

B. 1,3,4.

C. 2,3,4.

D. 2,3,5.

E. 3,4,5.

Question nr **65**

In a 6-month-old girl in a good general condition, the urine for urinalysis was collected into the bag specimen. On urinalysis, 10-20 leukocytes in the visual field were noticed, urine for culture was taken. What should the pediatrician do?

A. diagnose urinary tract infection and give an empirical antibiotic intravenously.

B. diagnose urinary tract infection and give an empirical antibiotic orally.

C. diagnose urinary tract infection and give a chemotherapeutic agent while waiting for the urine culture results.

D. perform another urinalysis after mid-stream urine collection.

E. postpone the therapeutic decision until the urine culture result is available.

Question nr **66**

Acute pharyngitis in children 3-4 years of age:

A. is most often caused by streptococci and requires antibiotic treatment.

B. is always an indication for basic tests: peripheral blood counts and CRP in order to differentiate a bacterial infection from a viral infection.

C. is most often caused by viruses and does not require antibiotic therapy.

D. is an indication for throat swab culture.

E. C and D are correct.

Question nr **67**

A 7-year-old boy is under psychiatric care due to learning disabilities and behavioral problems. Recently, neurologic deterioration that includes hearing loss and visual deficits has been recognized. The plasma concentration of very long chain fatty acids is elevated. What is the probable diagnosis?

A. X-linked adrenoleukodystrophy.

B. Maple syrup urine disease.

C. Niemann-Pick disease.

D. Krabbe disease.

E. metachromatic leukodystrophy.

Question nr **68**

Indicate the true statement concerning pneumonia in children:

A. age < 6 months of a child with pneumonia is an indication for hospitalization.

B. *Streptococcus agalactiae* is a frequent causative factor of pneumonia in children above 5 years of age.

C. severe pneumonia in neonates is diagnosed when their respiratory rate is above 30 breaths/min.

D. pneumonia in a child with accompanying pleurisy can be treated in outpatient settings.

E. hypoxemia is diagnosed when the saturation is < 95%.

Question nr **69**

Which of the following is the **absolute contraindication** to the gastric lavage in a child who ingested a toxic substance?

A. unconsciousness.

B. ingestion of a substance of marked toxicity, posing a life threat.

C. intoxication with hydrocarbon derivatives.

D. ingestion of a corrosive agent, alkaline or acid one.

E. all the above.

Question nr **70**

The cerebrospinal fluid test performed in a 15-year-old child showed: cell count 420 /μL, 86% lymphocytes, erythrocytes 3/μL, glucose concentration 61 mg/dL, protein concentration 46 mg/dL, chloride ion concentration 122 mmol/L. The result is characteristic of:

A. healthy child.

B. suppurative meningitis.

C. viral meningitis.

D. tuberculous meningitis.

E. subarachnoid hemorrhage.

Question nr **71**

The incubation period of hepatitis A in children is:

A. 12-24 hours.

B. 1-5 days.

C. 5-20 days.

D. 15-40 days.

E. 40-60 days.

Question nr **72**

Indicate the true statement concerning Credé method:

A. is performed in all children and is based on administration of a 0.5% solution of erythromycin or a 1% solution of tetracycline into each conjunctival sac.

B. is not performed in babies delivered through a caesarean section.

C. is based on the instillation of a 1% solution of silver nitrate into each eye.

D. prevents conjunctivitis caused by *Neisseria gonorrhoeae* and *Chlamydia trachomatis*.

E. after the procedure, the eyes should be rinsed with saline.

Question nr **73**

In a child with a confirmed diagnosis of coeliac disease, i.e. permanent gluten intolerance, the following products should be totally eliminated from the diet:
1) wheat;
2) rye;
3) corn;
4) barley;
5) rice.
The correct answer is:

A. 1,2,4.

B. 1,2,3.

C. 1,3,4.

D. 1,2.

E. 3,5.

Question nr **74**

Which of the following **is not** a cause of obesity in children?

A. leptin deficiency.

B. leprechaunism.

C. overeating.

D. hypercortisolemia.

E. Prader-Willi syndrome.

Question nr **75**

Mild course tuberculosis includes:
1) cutaneous tuberculosis;
2) osteoarticular tuberculosis;
3) tuberculous spondylitis;
4) miliary tuberculosis;
5) lymphonodular tuberculosis.
The correct answer is:

A. 1,2,5.

B. 1,2,3.

C. 2,4,5.

D. 2,3,4.

E. 1,3,5.

Question nr **76**

Which of the following antibiotics should be used in the treatment of acute pyelonephritis in a 2-year-old child?

A. amoxicillin with clavulanic acid.

B. amoxicillin.

C. 3rd-generation cephalosporin.

D. 1st- generation cephalosporin.

E. ciprofloxacin.

Question nr **77**

Which of the following can be anticipated in a child with Marfan syndrome (mutation in the *FBN1* gene encoding fibrillin-1):
1) proportional above-average height;
2) abnormal joint flexibility;
3) male gender;
4) scoliosis;
5) aortic stenosis;
6) cataract.
The correct answer is:

A. all the above.

B. 1,2,4,5,6.

C. 2,3,4.

D. 2,5,6.

E. 2,4.

Question nr **78**

Taking into consideration a theoretical risk of foetus malformations caused by the vaccine, an attenuated strain of rubella virus, what is the minimal interval between the vaccination with a combined measles-mumps-rubella vaccine and the planned pregnancy according to the Polish National Program of Immunizations?

A. 2 weeks.

B. 4 weeks.

C. 2 months.

D. 3 months.

E. 6 months.

Question nr **79**

Which karyotype is found in a patient with Morris syndrome?

A. 46 XX.

B. 45 XO.

C. 47 XXX.

D. 46 XY.

E. 48 XXXY.

Question nr **80**

Factors which can disturb the fetal growth **do not** include:

A. mother’s underweight before pregnancy.

B. mother’s age under 16 years.

C. mother’s obesity or high weight gain during pregnancy.

D. mother’s diet rich in folic acid.

E. gestational diabetes.

Question nr **82**

Which of the following is most commonly used in the pharmacological treatment of vasovagal syncope in children?

A. mineralocorticoid.

B. permanent pacemaker.

C. β receptor blocker.

D. cardiac surgery.

E. increased supply of fluids in the diet.

Question nr **83**

A woman comes to the GP with her 4-year-old daughter, who has had a fever up to 39.5 ºC since the morning. The child complains of strong sore throat too. The physical examination reveals enlarged tonsils covered with white exudate and pus plugs.

Anterior cervical lymph nodes are also enlarged. The clinical image allows the diagnosis of:

A. acute pharyngitis, 2 points on the Centor/McIsaac score, no indications for antibiotic therapy.

B. infectious mononucleosis, there is no indications for antibiotic therapy.

C. acute streptococcal pharyngitis and tonsillitis, 4 points on the Centor/McIsaac score; antibiotic therapy is indicated without need for the rapid strep test.

D. acute streptococcal pharyngitis and tonsillitis, but the decision on antibiotic therapy should be based on the rapid strep test result.

E. scarlet fever, the antibiotic therapy is necessary.

Question nr **84**

Acute lymphoblastic leukemia (ALL) in a child population presents a relatively good prognosis compared with other neoplastic diseases. Which of the following is a prognostic high risk factor in ALL in children that urges intensive treatment and decreases chances of curing the disease?

A. susceptibility to introductory glucocorticoid treatment.

B. presence of translocation t(9;22).

C. normal leukocyte count at the diagnosis of the bone marrow infiltration by leukemic cells.

D. coexisting Down syndrome.

E. no trace of minimal residual disease in bone marrow after one-month treatment.

Question nr **85**

Which of the following diagnostic methods allows the identification of scars in the kidney?

A. DMSA scintigraphy.

B. ultrasound imaging.

C. voiding cystography.

D. urinalysis.

E. Doppler ultrasound.

Question nr **86**

The doses of medications in children depending on the substance and the way of administration are calculated:
1) per kilogram of body weight;
2) per square meter of body surface;
3) as in adults for children older than 6 years;
4) as in adults for children older than 10 years;
5) as in adults for children with body weight of 40 kg or more.
The correct answer is:

A. 1,2,4,5.

B. 1,2,5.

C. 1,2,3.

D. 1,2,4.

E. 1,3,5.

Question nr **87**

Invasive meningococcal disease was diagnosed in a 4-year-old child admitted to the hospital. What preventive measure should be implemented in a 2-year-old brother of the hospitalized child living in the same household?

A. there are not effective methods of prevention of a meningococcal infection.

B. vaccine against meningococcal infection should be given as soon as possible.

C. one dose of ceftriaxone 125 mg should be given.

D. one dose of rifampicin (10 mg/kg) should be given.

E. one dose of ampicillin (25 mg/kg) should be given.

Question nr **88**

A 3-year-old child suffers from significant pruritus aggravating at night. There are irregular papules on the skinfolds between digits. There are excoriations visible on the foot skin and in the intergluteal area. The probable diagnosis is:

A. scabies.

B. pediculosis.

C. skin allergy.

D. food allergy to protein.

E. Boston exanthem disease.

Question nr **89**

Cystic fibrosis consists in inherited malfunction of the chloride channel. It results in the decreased excretion of chloride and the increased absorption of natrium into cells, which leads to ion disturbances and dehydration of the secretion of exocrine glands. Thus, it is true that in children with cystic fibrosis more often than in healthy children:
1) sweat contains less chloride, which is used in the diagnostics;
2) bronchiectasis may occur;
3) cholestasis and cholelithiasis may occur;
4) sinusitis and nasal polyps may occur;
5) exocrine pancreatic insufficiency may be observed while the endocrine pancreatic function is preserved (e.g. insulin secretion).
The correct answer is:

A. only 1.

B. 2,3.

C. 2,3,4.

D. 2,3,4,5.

E. 1,2,3,4.

Question nr **90**

The most common type of juvenile idiopathic arthritis in children is:

A. oligoarticular juvenile idiopathic arthritis.

B. polyarticular juvenile idiopathic arthritis.

C. systemic-onset juvenile idiopathic arthritis.

D. psoriatic arthritis.

E. enthesitis-related arthritis.

Question nr **91**

The most common causes of macrocytic anaemia in children include:

A. deficiency of vitamin B_{12}, deficiency of folic acid, hypothyroidism, liver diseases.

B. deficiency of vitamin B_{12}, iron deficiency, hypothyroidism, liver diseases.

C. deficiency of vitamin B_{12}, deficiency of folic acid, acute haemorrhage, liver diseases.

D. aplasia of bone marrow, deficiency of folic acid, hypothyroidism, liver diseases.

E. deficiency of vitamin B_{12}, deficiency of folic acid, hypothyroidism, lead poisoning.

Question nr **92**

The elements of primary prophylaxis of atopic dermatitis include:

A. breastfeeding up to 6 months.

B. non-smoking during pregnancy.

C. appropriate skin care of the baby.

D. A, B are true.

E. A, C are true.

Question nr **93**

The appropriate treatment after the diagnosis of streptococcal angina is:

A. penicillin V (phenoxymethylpenicillin) for 5-7 days.

B. penicillin V (phenoxymethylpenicillin) for 10 days.

C. clarithromycin for 5-7 days.

D. clarithromycin for 10 days.

E. erythromycin for 5-7 days.

Question nr **94**

Which of the following **is not** used to diagnose obesity in children?

A. location on the BMI centile chart.

B. waist-to-hip ratio (WHR).

C. abdominal circumference chart.

D. Cole's index.

E. crown-rump length (CRL).

Question nr **95**

Which of the following factor increase the risk of urolithiasis?
1) increased fluid intake;
2) familial history of urolithiasis;
3) warm climate;
4) infection caused by *Proteus mirabilis*.
The correct answer is:

A. 1,2,3.

B. 1,2,4.

C. 1,3,4.

D. 2,3,4.

E. all the above.

Question nr **96**

Which of these symptoms is **<u>the least probable</u>** symptom of the extragastric presentation of gastric reflux disease in children?

A. dental enamel lesions.

B. rickets.

C. grunting.

D. recurrent sinusitis.

E. sleep apnoea.

Question nr **97**

A 5-year-old girl, healthy and properly developing so far, was referred to the ER because of disturbances of consciousness, poor general condition and significant dehydration with rapid, deep breathing. From anamnesis you find out that she has lost 3 kg of weight for the last 2 weeks, and begun wetting. Previously she used to drink a lot,

but the last day she stopped drinking and urinating; she complained of severe abdominal pain and vomiting. Indicate the most probable diagnosis:

A. ketoacidosis in the course of previously undiagnosed diabetes mellitus.

B. alcohol intoxication.

C. exacerbation of chronic kidney disease previously undiagnosed.

D. adrenal crisis.

E. meningitis.

Question nr **98**

Which of the following conditions are characterized by increased urine loss of phosphates?
1) Fanconi syndrome;
2) tumor lysis syndrome during chemotherapy;
3) hypophosphatemic rickets;
4) hyperparathyroidism;
5) hypoparathyroidism.
The correct answer is:

A. 1,2,3,4.

B. 2,3,4,5.

C. 1,2,3,5.

D. 1,3,4,5.

E. all the above.

Question nr **99**

Which stage of chronic kidney disease should be diagnosed in a 16-year-old patient with lupus nephropathy and eGFR = 45 ml/min/1.73 m^2?

A. 1.

B. 2.

C. 3.

D. 4.

E. 5.

Question nr **100**

Which of the following symptoms **is not** characteristic of streptococcal pharyngitis and tonsillitis?

A. mucus discharge in the nasal passages.

B. fibrous debris in the tonsillar crypts.

C. enlarged and painful submandibular lymph nodes.

D. petechiae on the palatal mucosa.

E. scarlet-fever-like skin rash, dawn effect.

Question nr **101**

A 3-year-old girl came to the clinic because of malaise, abdominal pain, and oedema localized mainly in the lower limbs. The urinalysis revealed: the SG - 1.030, pH - 6.0, erythrocytes - 0-1 in the field of vision, leukocytes - 0-1 in the field of vision, protein - 1170 mg/dL, nitrites - absent. Which of the following is the most likely diagnosis?

A. urinary tract infection.

B. Alport syndrome.

C. nephritic syndrome.

D. Schönlein-Henoch syndrome.

E. nephrotic syndrome.

Question nr **102**

Indicate the correct sentence concerning bronchiolitis:

A. occurs only in premature neonates due to adenovirus.

B. occurs mainly in school-age children exposed to tobacco smoke or smoking children.

C. occurs only in children with a congenital heart defect.

D. it is the most common form of inflammation in the lower respiratory tract in infants.

E. it is caused mainly by acapsular bacteria.

Question nr **103**

Which of the following are characteristic of Wilson disease in children?
1) excessive storage of copper in the liver accompanied by the increased serum activity of aminotransferases;
2) frequent neurological disorders, especially dysarthria;
3) frequent presence of Kayser-Fleischer ring of the cornea;
4) increased serum ceruloplasmin concentration;
5) increased urinary copper excretion.
The correct answer is:

A. 1,2.

B. 1,3.

C. 1,5.

D. 1,3,5.

E. 1,3,4,5.

Question nr **104**

Inhaled corticosteroids may be used in the treatment of:

A. acute bronchitis and bronchiolitis.

B. exhausting cough accompanying an upper respiratory tract infection.

C. acute subglottic laryngitis.

D. every kind of asthma regardless of its severity.

E. all of the above.

Question nr **105**

A 10-year-old child was referred to the out-patient pulmonary clinic because of a chronic cough and recurrent respiratory tract infections, usually occurring with an expectoration of purulent sputum. The medical history shows meconium ileus after the birth and a small body weight gain. The episodes of steatorrhea are also present. Which of the following is the most probable diagnosis?

A. asthma.

B. primary ciliary dyskinesia.

C. chronic sinusitis.

D. cystic fibrosis.

E. tuberculosis.

Question nr **106**

Phakomatoses **do not** include:

A. mesodermal and neuroectodermal dysplasia.

B. neurofibromatosis.

C. cerebral hemangiomas.

D. Bourneville's disease.

E. Tay-Sachs disease.

Question nr **107**

A child weighing 12 kg with the fever of 40 °C can be given once:
1) 3 mL syrup with the concentration of 200 mg/5 mL of ibuprofen;
2) 6 mL syrup with the concentration of 100 mg/5 mL of ibuprofen;
3) 1.8 mL syrup with the concentration of 100 mg/1 mL of paracetamol;
4) 5 mL syrup with the concentration of 120 mg/5 mL of paracetamol;
5) 7.5 mL syrup with the concentration of 120 mg/5 mL of paracetamol;
6) 240 mg of ibuprofen in a suppository.
The correct answer is:

A. all the above.

B. 1,2,3,4,5.

C. 1,2,3,4,6.

D. 1,2,3,4.

E. 1,2,5,6.

Question nr **108**

Moro reflex:

A. appears at about 6 month of life and disappears at about 18th month of life.

B. appears at about 3 month of life and disappears at about 12th month of life.

C. is present from the birth and disappears between 3rd and 6th month of life.

D. is abnormal at any age.

E. is abnormal only in neonates.

Question nr **109**

Short stature may be observed in the following disorders, **except for**:

A. achondroplasia.

B. Marfan syndrome.

C. Down syndrome.

D. Turner syndrome.

E. fetal alcohol syndrome.

Question nr **110**

Indicate the true statements concerning pneumonia caused by *Chlamydia trachomatis*:
1) it occurs in neonates in the first weeks of life;
2) it is an example of atypical infection and usually occurs in school children;
3) clinical signs include mainly dry, spasmodic, whooping-like cough;
4) clinical signs include conjunctivitis, rhinitis, cough and vomiting.
The correct answer is:

A. 1,3.

B. 2,3.

C. 1,4.

D. 2,4.

E. none of the above.

Question nr **111**

Which of the following are features of acute diarrhea in children?
1) it is an infectious disease;
2) passing three or more liquid or semi-liquid stools daily;
3) passing stools containing blood, pus or significant amounts of mucus;

4) symptoms last up to 2 weeks.
The correct answer is:

A. all the above.

B. 1,2,3.

C. 1,2,4.

D. 1,2.

E. only 1.

Question nr **112**

Indicate the **false** statement concerning tuberculosis in children:

A. an adult person in the household is the most frequent source of infection.

B. children aged < 3 years are at the highest risk of severe tuberculosis.

C. IGRA tests are not useful in the diagnostics of tuberculosis in children.

D. bronchoscopy is standard procedure in the diagnostics.

E. children treated with dialysis due to renal failure are more prone to infection with tuberculosis.

Question nr **113**

Indicate the correct sentence about infectious mononucleosis:

A. it is caused by a virus of *Herpesviridae* family, also responsible for diseases running with cell proliferation: malignant granulomatosis and Burkitt lymphoma.

B. incubation lasts about one week, and afterwards high fever, lymph nodes enlargement and strong cough occur.

C. leukopenia and lymphopenia are typical aberrations in blood morphology.

D. it should be differentiated mainly from scarlet fever because of rash, lymph nodes enlargement and pharyngitis.

E. macrolides are routinely used in the treatment.

Question nr **114**

Which complication **does not** occur in patients after liver transplantation?

A. increased vulnerability to opportunistic infections.

B. graft versus host disease.

C. acute or chronic rejection of the graft.

D. development of lymphoproliferative diseases and lymphomas.

E. relapse of underlying disease.

Question nr **115**

A child refers to the physician with small petechiae on the thighs, joint pains and proteinuria. The mother reports that 2 weeks earlier her child had bacterial pharyngitis. Which of the following should be suspected?

A. Henoch-Schönlein purpura.

B. arthritis.

C. measles.

D. idiopathic thrombocytopenia.

E. vascular purpura.

Question nr **116**

The mother of a 2-year-old boy is concerned with her child's diet. He doesn't want to eat vegetables or meat and demands milk desserts or sweet drinks only. His height and weight are at the level of a 50th centile. The boy doesn't present any signs of infection but he was treated with oral antibiotics twice in his life, for pharyngitis and bronchitis. There are no alarming symptoms. On the complete blood count: leucocytes - 8,400/ mm^3, hemoglobin - 9.1 g/dL, MCV - 62 fL, platelets - 330 000/mm^3. Fasting glucose - 88 mg%. Indicate the correct decision and its justification:

A. referring the child to a psychologist, as the lab tests are normal.

B. performing oral glucose test because the symptoms may be caused by diabetes.

C. therapy with steroids because the symptoms and lab tests suggest hemolytic anemia.

D. treatment with parenteral iron preparations and vitamins because the symptoms and lab tests suggest iron deficiency anemia.

E. treatment with oral iron preparations and vitamins because the symptoms and lab tests suggest iron deficiency anemia.

Question nr **117**

An increased aminotransferase activity **does not** occur in:

A. non-alcoholic fatty liver disease.

B. Kawasaki disease.

C. Duchenne muscular dystrophy.

D. iron-deficiency anemia.

E. acute hepatitis.

Question nr **118**

Which of the following is used to diagnose constipation?
1) manometry;
2) Hinton test;
3) hydrogen test;
4) bowel contrast enema;
5) gastrofiberoscopy.
The correct answer is:

A. 1,2,3.

B. 1,2,4.

C. 2,3,4.

D. 1,2,5.

E. 2,3,5.

Question nr **119**

A two-year-old child unvaccinated (parents' decision) came back home after two-week's vacation from Ukraine. After a week the child developed high fever, dry cough, nasal discharge and conjunctivitis with eyelid edema. After three days numerous grayish-white papules appeared on the cheek mucosa and after another two days as the fever dropped, a rash appeared on the forehead and then it spread. The child should be diagnosed with:

A. Kawasaki disease.

B. measles.

C. scarlet fever.

D. infectious mononucleosis.

E. roseola.

Question nr **120**

Which of the following are secondary disturbances typical of nephrotic syndrome?
1) increased triglyceride and cholesterol serum concentrations;
2) vitamin D deficiency;
3) hyperthyroidism;
4) decreased fibrinogen concentration;
5) decreased immunoglobulin serum concentration.
The correct answer is:

A. 1,3,5.

B. 1,2,5.

C. 2,3,5.

D. 1,2,4.

E. 2,3,4.

Question nr **121**

Systemic Inflammatory Response Syndrome (SIRS) is characterized by the sudden appearance of at least 2 symptoms:

A. body temperature >39.5 C degrees or <35 C degrees and leukopenia.

B. body temperature >39.5 C degrees or <35 C degrees and hyperleukocytosis.

C. leukopenia or hyperleukocytosis and bradypnea or tachypnea.

D. body temperature >38.5C degrees or <36 C degrees and tachypnea or tachycardia.

E. body temperature >38.5C degrees or <36 C degrees and bradypnea or bradycardia.

Question nr **122**

Lumbar puncture in children is absolutely indicated in the following clinical situations,

except for:

A. newborn with spinal dysraphism.

B. neonate with sepsis.

C. 1-year-old child after an episode of complex seizures.

D. 2-year-old child with the suspicion of leukodystrophy.

E. 3-year-old child with a neoplastic disease of the central nervous system.

Question nr **123**

A 5-year-old girl was hospitalized a dozen times in various pediatric wards because of unspecific symptoms and yet is undiagnosed. Acute symptoms subsided while the mother was absent at the ward. The results of numerous performed test are inconclusive and contradictory. The mother is alert and asks to repeat blood tests and to perform additional imaging examinations. The described picture may suggest:

A. posttraumatic stress disorder.

B. psychosomatic disorders.

C. Munchausen syndrome by proxy (factitious disorder).

D. physical/sexual abuse of the child.

E. troublesome family situation (e.g. reaction to parents' divorce).

Question nr **124**

Which of following diseases **does not** lead to height restriction?

A. celiac disease.

B. hypothyroidism.

C. adrenal insufficiency.

D. Cushing's syndrome.

E. chronic kidney disease.

Question nr **125**

A 3-year-old boy was admitted to the hospital because of oliguria and generalized oedema. Laboratory findings show proteinuria 500 mg/mmol creatinine, albuminemia 15

g/L. The treatment of choice is:

A. ACE inhibitor.

B. glucocorticosteroids.

C. cyclosporine.

D. diuretics.

E. cyclophosphamide.

Question nr **126**

Indicate the set of heart rate (HR) and arterial blood pressure (RR) values normal in a one-year-old child:

A. HR: 105/min, RR: 85/60 mmHg.

B. HR: 105/min, RR: 120/80 mmHg.

C. HR: 90/min, RR: 120/80 mmHg.

D. HR: 65/min, RR 85/60 mmHg.

E. HR: 65/min, RR 120/80 mmHg.

Question nr **127**

Indicate the true statement concerning bronchitis in children:

A. it is caused by bacteria in above 90% of cases.

B. nebulization with 3% solution of sodium chloride can be used to ease the symptoms of acute bronchitis.

C. rales can be heard over the lungs on physical examination.

D. prophylaxis of bronchitis includes annual influenza vaccination of children above 1 month of age.

E. diagnostics of bronchitis includes chest x-rays as standard procedure.

Question nr **128**

Indicate the true statement concerning newly diagnosed immune thrombocytopenia:

A. is an indication for an immediate start of immunosuppressive treatment.

B. treatment of choice is splenectomy.

C. it can be diagnosed only if the platelet count in the peripheral blood is < 100 x 10^3/μL and disorders are excluded that might suggest other reason for thrombocytopenia (e.g. lymphadenopathy, hepatomegaly, anemia, abnormal WBC).

D. when the platelet count is < 50 x 10^3/μL there are indications for platelet concentrate transfusion.

E. in order to confirm the immune background it is necessary to perform tests for the presence of anti-platelet antibodies in the blood.

Question nr **129**

Which of the following concerning Allagille syndrome **is false**?

A. it is an autosomal dominantly inherited disease.

B. there is an abnormal development of liver, heart and kidneys.

C. there are increased levels of alkaline phosphatase.

D. there are craniofacial defects, spine defects (butterfly vertebrae).

E. elevated total bilirubin levels, with a predominance of indirect.

Question nr **130**

Which of the exams is decisive in the differentiation of malignant disease of blood from systemic onset juvenile idiopathic arthritis?

A. morphology.

B. ESR.

C. bone marrow biopsy.

D. x-rays of affected joints.

E. abdominal ultrasound.

Question nr **131**

Productive cough is typical of the following diseases, **except from**:

A. cystic fibrosis.

B. primary ciliary dyskinesia.

C. plastic bronchitis.

D. pertussis.

E. bronchiectasis.

Question nr **132**

Which procedure is necessary for the diagnosis of Wilms' tumour?

A. opened biopsy of the tumour.

B. fine needle biopsy of the tumour.

C. abdominal ultrasound and/or computed tomography.

D. alpha-fetoprotein (AFP) concentration in plasma.

E. renal scintigraphy.

Question nr **133**

A 4-month-old infant was admitted to the hospital and diagnosed with bronchiolitis. Prior to the infection the child was healthy. In the rapid test of the smear from the nasopharynx RSV (respiratory syncytial virus) antigens were detected. Indicate the proper treatment in this case:

A. symptomatic treatment.

B. specific immunoglobulins.

C. monoclonal antibodies against RSV.

D. ribavirin.

E. antibiotic penetrating to the respiratory tract.

Question nr **134**

The antibiotic of choice in the treatment of streptococcal pharyngitis is:

A. gentamicin.

B. doxycycline.

C. penicillin.

D. amikacin.

E. co-trimoxazole.

Question nr **135**

A mother reported to the pediatrician with her 10-year-old son because of hearing impairment. Medical history showed that boy's uncle suffers from hypoacusis. The urine test showed erythrocyturia and mild proteinuria. Which of the following is the most probable cause of the symptoms?

A. Alport syndrome.

B. acute postinfectious glomerulonephritis.

C. acute pyelonephritis.

D. haemolytic-uraemic syndrome.

E. systemic lupus erythematosus.

Question nr **136**

A reaction of the balance system examined in order to assess the psychomotor development of a neonate is called:

A. Lust reflex.

B. Landau reflex.

C. Levine's sign.

D. Laseque's sign.

E. Leigh's sign.

Question nr **137**

A 11-year-old boy called on the doctor with the results of the urinary test performed in the afternoon, which showed proteinuria of 300 mg/dL. Which of the following is the most probable cause?

A. Schönlein-Henoch disease.

B. systemic lupus erythematosus.

C. focal segmental glomerulosclerosis.

D. orthostatic proteinuria.

E. arterial hypertension.

Question nr **138**

Within what time in the period of infectivity will an immunocompetent child display chickenpox signs after contacting an infectious patient (with chickenpox)?

A. 3 days.

B. 5 days.

C. 7 days.

D. 15 days.

E. 25 days.

Question nr **139**

In the case of the mother being a carrier of the mutated gene, the risk that her son will be ill with haemophilia A is:

A. 0%.

B. 25%.

C. 50%.

D. 75%.

E. 100%.

Question nr **140**

Celiac disease can coexist with many other autoimmune diseases including:
1) autoimmune hepatitis;
2) Hashimoto's disease;
3) Duhring's disease;
4) Sjögren's disease;
5) Crohn's disease;
6) type II diabetes.
The correct answer is:

A. all the above.

B. 1,2,3,4,5.

C. 1,2,3,4.

D. 1,2,3,5.

E. 1,2,4,5.

Question nr **141**

Idiopathic musculoskeletal disorder affecting children, often referred to as body growth pain, is the reason for visiting a pediatrician. Which symptoms allow to make such a diagnosis?

A. abnormal walk, pains occur daily, normal laboratory test results.

B. normal walk, pains always occur in the morning, normal laboratory test results.

C. normal walk, knee joint edemas occur, normal laboratory test results.

D. normal walk, pains never occur in the morning, normal laboratory test results.

E. pains accompanied by knee joint edemas appear every day, abnormal laboratory test results.

Question nr **142**

The factors behind the development of urinary tract infection in children include:
1) urinary retention;
2) anatomical defects of the urinary system;
3) diabetes;
4) urinary catheterization;
5) constipation.
The correct answer is:

A. all the above.

B. 1,2,3,4.

C. 2,4,5.

D. 1,2,4.

E. 3,4.

Question nr **143**

The symptoms of primary adrenal insufficiency include:
1) increased arterial pressure;
2) lowered arterial pressure;
3) light skin;
4) dark skin;
5) delayed puberty;
6) precocious puberty.
The correct answer is:

A. 2,3,5.

B. 1,4,6.

C. 2,4,5.

D. 2,4,6.

E. 1,3,5.

Question nr **144**

Indicate **the false** statement concerning vaccines:

A. pneumococcal polysaccharide vaccine (PPV23) is used for vaccination of neonates and children under 2 years of life.

B. vaccination against influenza is recommended in children over 6 months of life.

C. BCG vaccine is a viable, attenuated vaccine and that is why it is contraindicated in children suspected of or diagnosed with severe immune deficiency.

D. pneumococcal vaccine PCV10 or 13 is an example of conjugated vaccine in which polysaccharide antigens are connected to a protein carrier.

E. DPT vaccine is an example of inactivated, conjugated vaccine with whole cell pertussis bacteria.

Question nr **145**

Indicate **the false** statement concerning impetigo:

A. impetigo is the most common bacterial infection in children.

B. in many cases it is caused by beta-hemolytic streptococcal infection.

C. erythema, followed by blisters and honey and yellow crusts occur.

D. glomerulonephritis may be a complication of impetigo.

E. Lisch nodules are found in more than 90% of patients with impetigo.

Question nr **146**

Jaundice connected with breast-feeding is probably the result of:

A. quick intestinal transit of meconium.

B. high content of lactose in the first milk, which impairs bilirubin conjunction with glucuronic acid.

C. delayed first feeding and not enough feeding.

D. inadequate newborn's intestinal bacterial colonization.

E. mother's intake of drugs which cleave the ester bonds of bilirubin glucuronide.

Question nr **147**

In the case of a girl of a short stature, with primary amenorrhea, coarctation of the aorta and a dysmorphic face the most likely clinical diagnosis is:

A. Noonan syndrome.

B. Prader-Willi syndrome.

C. Angelman syndrome.

D. Turner syndrome.

E. Klinefelter syndrome.

Question nr **148**

Which of the following **is not** a cause of cardiogenic syncope in children?

A. Kawasaki disease.

B. elongated QT syndrome.

C. pulmonary hypertension.

D. abnormal self-regulation of heart rate and blood pressure during long time standing.

E. dilated cardiomyopathy.

Question nr **149**

A foreign body in the bronchus may cause any of the following, **except for**:

A. recurrence of pneumonia in the same localization.

B. pneumonia resistant to routine treatment.

C. atelectasis.

D. pain that increases with neck movements.

E. asymmetry of vesicular murmur.

Question nr **150**

The most common complication of streptococcal pharyngitis in children is:

A. scarlet fever.

B. impetigo of the face skin.

C. rheumatic fever.

D. peritonsillar abscess.

E. acute otitis media.

Question nr **151**

The tests used for the examination of strabismus in children include:
1) alternating eye covering and uncovering test;
2) corneal reflex test;
3) Hirschberg test;
4) cover test;
5) Adams test.
The correct answer is:

A. all the above.

B. 1,2,3,4.

C. 1,2.

D. 3,4.

E. 3,5.

Question nr **152**

In which of the following diseases may the postexposure prophylaxis be used?
1) mumps;
2) measles;
3) pertussis;
4) varicella;
5) *Neisseria meningitis* infection.
The correct answer is:

A. 1,2.

B. 1,3,4.

C. 2,3,4.

D. 2,3,4,5.

E. 2,4,5.

Question nr **153**

Which of the following genetic disorders **is not** related to the increased risk of malignancy in children?

A. Down syndrome.

B. Beckwith-Wiedemann syndrome.

C. Nijmegen breakage syndrome.

D. neurofibromatosis type I.

E. familial Mediterranean fever.

Question nr **154**

The presence of multiple adenomatous polyps on endoscopic examination of the digestive tract and co-existing soft tissue fibromas on the arms and the shanks give rise to a suspicion of:

A. Gardner syndrome.

B. Peutz-Jeghers syndrome.

C. Turcot syndrome.

D. juvenile polyps.

E. familial juvenile polyposis.

Question nr **155**

Can a child be diagnosed with diabetes using oral glucose tolerance test?

A. yes, 50 g glucose is given.

B. yes, 75 g glucose is given.

C. yes, the dose of glucose is calculated as 1.75 g/kg b.w., no more than 50 g.

D. yes, the dose of glucose is calculated as 1.75 g/kg b.w., no more than 75 g.

E. no, oral glucose tolerance test is not used in children.

Question nr **156**

Urinary system infection in children **is not** testified by:

A. dilation of the renal pelvis and calyces observed in ultrasound imaging.

B. presence of nitrites in urine.

C. abnormal leukocyte count in urine.

D. bacteriuria.

E. dysuria and frequent urination.

Question nr **157**

A 7-year-old boy with a food allergy, with an history of anaphylactic shock after drinking of cow's milk, reports to the family doctor complaining of general weakness and eyelid swelling. The symptoms have persisted for over 2 days. Numerous fresh traces of insect bites are visible on the skin. Swelling of the face and lower legs. The heart rate and blood pressure are normal. The result of a rapid test determining the concentration of CRP in capillary blood - normal. Urine test strip: leukocytes (+), protein (+++). The child is referred to the hospital. What diagnosis do you consider the most likely at this stage?

A. worsening of food allergy symptoms in a boy with a history of anaphylatic shock.

B. suspected urinary tract infection.

C. toxic reaction to insect bites.

D. suspected allergy to insect venom.

E. suspected nephrotic syndrome.

Question nr **158**

The target HbA1c value in preschool children with type 1 diabetes mellitus is:

A. <6.5%.

B. <7.0%.

C. <7.5%.

D. <8.0%.

E. <8.5%.

Question nr **159**

The prevention of food allergy **does not** include:

A. only breast feeding in the first 6 months of life.

B. introduction of products other than milk to the child diet not earlier then after 4 months of life.

C. use of protein hydrolysates in bottle-fed children with a genetic predisposition for atopy.

D. use of goat milk instead of cow milk.

E. elimination of strong allergens from the diet of the breastfeeding mother.

Question nr **160**

The sudden onset of a disease in a child with a high fever, headaches, vomiting, fine spotted rash on the skin, and “raspberry tongue” is the clinical description of:

A. measles.

B. chickenpox.

C. scarlet fever.

D. infectious mononucleosis.

E. diphtheria.

Question nr **161**

The definition of 1 carbohydrate exchange (CE) includes an amount of the product comprising:

A. 5 g of carbohydrates.

B. 10 g of carbohydrates.

C. 15 g of carbohydrates.

D. 20 g of carbohydrates.

E. 25 g of carbohydrates.

Question nr **162**

The serum glycemia level of 156 mg/dl in the 120th minute of the OGTT in a child is interpreted as:

A. normal condition.

B. impaired fasting glucose.

C. abnormal glucose tolerance.

D. diabetes.

E. none of the above.

Question nr **163**

Which of the following is recommended in the treatment of urinary tract infection in a neonate?

A. nitrofurantoin.

B. ciprofloxacin.

C. amoxicillin.

D. trimethoprim/sulfamethoxazole.

E. ampicillin with gentamicin.

Question nr **164**

Uveitis is one of the symptoms of juvenile idiopathic arthritis that may lead to eyesight damage. In which type of juvenile idiopathic arthritis does uveitis occur most frequently?

A. systemic.

B. polyarticular.

C. polyarticular accompanied by the positive value of RF factor.

D. oligoarticular.

E. seronegative polyarticular.

Question nr **165**

Constricted pupils may be observed in:

A. Horner’s syndrome.

B. opioid intoxication.

C. retinopathy of prematurity.

D. severe hypoxia of the central nervous system.

E. intoxication with sympathomimetics.

Question nr **166**

In the case of which infectious disease it **is not** possible to apply prevention by vaccination?

A. measles.

B. varicella.

C. rubella (German measles).

D. infectious mononucleosis.

E. rotavirus diarrhea.

Question nr **167**

Cerebral palsy is a non-progressing disorder of motoric and postural functions caused by the defect of:

A. CNS during its development (during pregnancy, labor or in perinatal period).

B. CNS and the peripheral nervous system during its development (during pregnancy, labor or in perinatal period).

C. CNS and the peripheral nervous system during the labor.

D. CNS during its development, i.e. during the pregnancy.

E. CNS during the labor.

Question nr **168**

A woman came to the GP with her one-year-old son because of a trivial viral infection of the upper respiratory tract. The doctor noticed paleness of the child. The boy had been fed non-modified cow milk since 6 months of age. He is unwilling to eat anything else than porridge with cow milk. The complete blood count shows: RBC 4 x 10^6/μL, Hgb 9.0 g/dL, MCV 60 fL, RDW 18%, PLT 480 x 10^3/μL, WBC 9 x 10^3/μL. The child had never taken any medications. Indicate the correct management:

A. the boy should be immediately referred to a hospital because of anemia and infection.

B. megaloblastic anemia should be diagnosed, as a consequence of malnutrition; and oral preparations of folic acid and vitamin B_{12} should be prescribed.

C. anemia related to the acute infection should be diagnosed; the infection should be cured and the full blood count should be repeated in 2 weeks.

D. the child is well adapted to the anemia and no treatment is needed, only diet modification.

E. iron-deficiency anemia should be diagnosed and an oral iron preparation should be prescribed as well as diet modification should be advised.

Question nr **169**

A 4-month-old girl was admitted to the hospital because of low weight gain, after the second episode of rectal prolapse. In the past she presented prolonged jaundice till 5th week of age. Currently, sporadic cough. On physical examination, apart from dystrophy, without significant abnormalities. Until now she has been neither diagnosed, nor hospitalized. In lab. evaluation the concentrations of serum ions were as follows: Na^+ - 128 mmol/l, Cl^- - 88 mmol/l. What is the most probable diagnosis?

A. galactosemia.

B. biliary atresia.

C. cystic fibrosis.

D. diabetes insipidus.

E. congenital adrenal hyperplasia.

Question nr **170**

Which of the following concerning urinary tract infection (UTI) in children **is false**?

A. risk of developing the disease is greater in preterm newborns.

B. risk of developing the disease is greater in female newborns.

C. infection most often develops via the ascending pathway.

D. UTI is most often caused by *E. coli*, but in teens *Staphylococcus saprophyticus* infection may occur.

E. phimosis can predispose to infections.

Question nr **171**

Which of the following is the most probable diagnosis in a 12-year-old patient with decreased concentrations of complement component 3 (C3) and normal concentrations of complement component 4 (C4)?

A. IgA nephropathy.

B. postinfectious glomerulonephritis.

C. Alport syndrome.

D. systemic lupus erythematosus.

E. reflux nephropathy.

Question nr **172**

Which of the following diagnoses should be considered the most probable in a boy over 2 years of age with increased levels of transaminases and phosphocreatine kinase if the mother reports that her son is clumsy?

A. labyrinthine disorders accompanying viral infection.

B. benign joint hypermobility syndrome.

C. Ebstein-Barr virus (EBV) infection.

D. parasite infestation.

E. muscular dystrophy.

Question nr **173**

A 15-month-old child who was vaccinated according to the current immunization schedule should be immune to tuberculosis, diphtheria, tetanus, pertussis and:

A. hepatitis A and B, *poliomyelitis*, *Haemophilus influenzae* type B, pneumococci, measles, mumps, rubella, meningococci.

B. hepatitis A and B, pneumococci.

C. hepatitis B, *Haemophilus influenzae* type B, pneumococci, rotaviruses, *poliomyelitis*, measles, mumps, rubella.

D. hepatitis B, *poliomyelitis*, *Haemophilus influenzae* type B, pneumococci, measles, mumps, rubella.

E. hepatitis B, *poliomyelitis*, *Haemophilus influenzae* type B, measles, mumps, rubella, influenza.

Question nr **174**

A 10-year-old girl was admitted to the ER because of generalized urticaria and difficulty in breathing. The symptoms occurred after she was stung by a bee. At the admission it was stated: disseminated urticaria on the skin, symptoms of wheezing on auscultation, breath rate 56/min, heart rate 110/min, RR 75/50 mmHg. Which of the following variants of therapeutic treatment is correct?

A. intramuscular administration of epinephrine, intravenous access and administration of fluids.

B. intravenous access, administration of systemic glucocorticosteroids, observation at the ER for 2 hours.

C. administration of antihistaminics, inhaled $beta_2$-agonists, and - in the absence of improvement - intravenous access and administration of systemic glucocorticosteroids.

D. intravenous access, intravenous administration of epinephrine.

E. intravenous access, administration of systemic glucocorticosteroids and - in the absence of improvement - epinephrine.

Question nr **175**

The *Streptococcus pyogenes* infection may cause various complications in children, mainly related to autoimmune reactions. These complications include:
1) haemolytic-uraemic syndrome (HUS);
2) rheumatic fever;
3) obsessive-compulsive disorder syndrome (PANDAS);
4) acute glomerulonephritis;
5) periodic fever, aphthous stomatitis, pharyngitis and adenitis syndrome (PFAPA).
The correct answer is:

A. all the above.

B. 1,2,3,4.

C. 2,3,4.

D. 2,4.

E. only 2.

Question nr **176**

Indicate true statements concerning urinary tract infections in children:
1) Gram negative bacteria are the most common etiological factor;
2) clinical signs in neonates are not specific;
3) primary diagnostic procedure is voiding cystourethrography;
4) voiding disturbances are predisposing factors;
5) length of treatment depends on the severity of child condition.
The correct answer is:

A. 1,2,3,4.

B. 1,2,4,5.

C. 2,3,4,5.

D. 1,3,4,5.

E. all the above.

Question nr **177**

A 16-year-old patient complaining of persistent pruritus for 3 months uses immunosuppressive treatment in the form of ointments and creams, prescribed by a dermatologist, with no result. In the patient's relation her neck has recently ‘swelled’,

and she reports also weakness and reduced exercise tolerance. On the examination, tachypnea, a bundle of enlarged lymph nodes (the largest with a diameter of 3 cm) in the region of the sternocleidomastoid muscle and the supraclavicular area on the same side were noted. An increased vascularization of the chest skin is visible. The patient should be referred to:

A. outpatient clinic to diagnose cholestasis that causes pruritus.

B. center dealing with cancer treatment in children, because of the suspicion of superior vena cava syndrome secondary to lymphoma.

C. oncological outpatient clinic to perform laboratory tests, ultrasound examination of cervical lymph nodes, virological tests and making appointment for biopsy.

D. oncological surgery center with a recommendation for a core needle biopsy, because of the suspicion of Hodgkin's lymphoma.

E. GP with a suggestion of diagnostic imaging: chest X-ray and ultrasound of the cervical lymph nodes.

Question nr **178**

In a 15-year-old girl with asymptomatic bacteriuria you should:

A. administer nitrofurantoin at the therapeutic dose for 3 days.

B. administer nitrofurantoin at the prophylactic dose for 7 days.

C. administer amoxicillin at the prophylactic dose for 3 days.

D. not administer any pharmacotherapy.

E. perform diagnostics at a specialist outpatient clinic.

Question nr **179**

The foramen ovale is located:

A. in intraventricular septum.

B. in intraatrial septum.

C. between the right pulmonary artery and the aortic arch.

D. between the left pulmonary artery and the aortic arch.

E. in the ductus arteriosus.

Question nr **180**

The most common cause of signs and symptoms of Cushing's syndrome is:

A. Cushing's disease.

B. adrenal cancer.

C. chronic administration of glucocorticoids.

D. congenital adrenal hyperplasia.

E. pheochromocytoma.

Question nr **181**

The diagnosis of urinary tract infection in newborns can be established on the basis of:

A. any number of Gram-negative bacteria in urine taken by suprapubic puncture.

B. any number of Gram-positive bacteria in urine taken by suprapubic puncture.

C. number of bacteria > 10^2 CFU/mL in urine taken by bladder catheterization.

D. number of bacteria > 10^3 CFU/mL in urine taken by bladder catheterization.

E. number of bacteria > 10^5 CFU/mL in urine taken into the bag.

Question nr **182**

The main features of WAGR syndrome are:

A. congenital absence of corneas, Wilms tumor, genitourinary malformations, mental retardation.

B. aniridia, liver tumor, genitourinary malformations, mental retardation.

C. aniridia, Wilms tumor, genitourinary malformations, mental retardation.

D. congenital absence of corneas, Wilms tumor, malformations of digestive system, mental retardation.

E. aniridia, ocular tumor, genitourinary malformations, mental retardation.

Question nr **183**

A 15-year-old boy called at the doctor's office because of discomfort, runny nose and

cough. The measured temperature was 37.5°C. On physical examination reddish and swollen throat and rhinitis. The physician assigned the patient 1 point according to Centor/McIsaac criteria. Consequently, he should treat the boy with:

A. oral penicillin because the common pathogen causing pharyngitis is *Streptococcus pyogenes*.

B. macrolide, because of possible coinfection with atypical microorganisms in the upper respiratory tract.

C. symptomatic treatment only.

D. acyclovir, because the identified signs and symptoms indicate a viral infection.

E. synthetic antimicrobial drug (trimethoprim/sulfamethoxazole) because in mild infection bactericidal antibiotics are not necessary.

Question nr **184**

The indication for an urgent hospitalization of a child with bronchial asthma is:

A. saturation < 96%.

B. tachypnea despite the administration of one dose of short acting beta agonists (SABAs).

C. no response after administrating SABAs twice.

D. difficulties in eating, drinking and speaking.

E. nasty cough and fever.

Question nr **185**

An infant received the second dose of DTP vaccine 20 days after the first one. What is the proper management in this case?

A. second dose should be considered realized and the vaccination should be continued according to the schedule.

B. second dose should be considered not realized and it should be repeated after 4 weeks; next doses should be given according to the schedule.

C. in this case the third dose should be given 20 days after the second dose.

D. in this case the time span between the second and third dose should be increased to 40 days and next doses should be given according to the schedule.

E. DTP vaccination should be restarted from the first dose after a 4-week break.

Question nr **186**

Indicate the true statement concerning Ewing's sarcoma:

A. it is more common in girls than in boys.

B. primary lesion causes laminated periosteal reaction.

C. is a highly differentiated sarcoma.

D. it is usually located in an upper limb.

E. the most common location of metastases is the liver.

Question nr **187**

Indicate the **false** statement of hives:

A. hives is not accompanied by anaphylactic shock.

B. primary lesion in hives is a blister.

C. hives may be caused, among others, by neoplastic or connective tissue disease.

D. most important medications in treatment of hives are 2nd generation antihistamines.

E. symptoms of chronic hives may accompany coeliac disease.

Question nr **188**

A thirteen-year-old boy has been complaining for several weeks of abdominal pain and black stools. What test should be performed first?

A. 24-hour pH of the esophagus.

B. impedance with pH measurement.

C. radiological examination.

D. endoscopy with biopsy.

E. gastric hydrochloric acid test.

Question nr **189**

In a 10-day-old neonate marked bilateral edemas of the limbs and periorbital edemas occurred. The most probable cause is:

A. nephrotic syndrome of the Finnish type.

B. postinfectious glomerulonephritis.

C. acute kidney injury.

D. haemolytic-uraemic syndrome.

E. obstructive nephropathy.

Question nr **190**

Which of the following is recommended in a 2-year old child diagnosed with acute pyelonephritis?

A. start antibiotic therapy after receiving the result of urinary culture.

B. avoid antibiotics, because it is usually viral infection.

C. start antibacterial treatment after cystography.

D. start antibiotic therapy as soon as possible.

E. start antibiotic therapy only when the child is diagnosed with congenital hydronephrosis.

Question nr **191**

Indicate **the false** statement concerning broncholitis:

A. it occurs in children under two years of age, principally during the fall and winter.

B. it has a biphasic course, after 2-3 days of acute upper respiratory tract infection the inspiratory and expiratory dyspnea occurs.

C. physical examination shows an inspiratory position of the chest, hyper-resonant percussion sound, wheezing and crackles, silent vesicular sound.

D. its treatment usually involves a broad-spectrum antibiotic, bronchodilators, high doses of glucocorticosteroids.

E. most important part of the management is proper hydration, oxygen therapy and air humidification.

Question nr **192**

Indicate the true statements concerning hand, foot and mouth disease (HFMD):
1) disease is caused by enteroviruses;
2) disease is caused by a parvovirus;
3) infection is observed only in infants;
4) animals may be a source of infection;
5) symptomatic treatment is used.
The correct answer is:

A. 1,3.

B. 1,3,4.

C. 1,5.

D. 2,3.

E. 2,5.

Question nr **193**

In the case of autosomal recessive disease the risk of the disease in the offspring of the parents who are both ill is:

A. 0%.

B. 25%.

C. 50%.

D. 75%.

E. 100%.

Question nr **194**

The most common cause of Cushing’s syndrome in children is:

A. treatment with glucocorticosteroids.

B. ACTH-secreting pituitary adenoma.

C. adrenal cancer.

D. adenoma of the adrenal gland.

E. McCune-Albright syndrome.

Question nr **195**

Which of the following infectious diseases is characterized by the incubation period between 11 to 21 days?

A. whooping cough.

B. scarlet fever.

C. varicella.

D. infectious mononucleosis.

E. diphtheria.

Question nr **196**

Frothy bubbles of mucous in the oral and nasal cavity of a newborn, despite regular clearing, accompanied with a loud heart murmur and limbs defect is characteristic of:

A. cytomegalovirus infection.

B. tetralogy of Fallot.

C. Down syndrome.

D. oesophageal atresia.

E. intrauterine hypotrophy with coexisting generalized infection.

Question nr **197**

Indicate the true statement concerning tuberculosis in children:

A. highest susceptibility to *M. tuberculosis* infection is observed in children under 3 years of age.

B. source of infection is usually another child with tuberculosis.

C. histopathological examination of primary tuberculosis in children above 12 months of age usually shows caseous lesions.

D. tuberculosis of the urogenital system is classified as a type with severe clinical course.

E. pulmonary lesions are usually unilateral in youngest children.

Question nr **198**

Symptoms of peripheral motor neuron damage include:
1) flaccid paresis;
2) spastic paresis;
3) hyperreflexia;
4) hyporeflexia;
5) decreased muscle tone;
6) increased muscle tone
7) fasciculations.
The correct answer is:

A. 1,4,5,7.

B. 2,4,5,7.

C. 1,4,6,7.

D. 2,3,6,7.

E. 1,3,6,7.

Question nr **199**

The characteristic features of cystic fibrosis **do not** include:

A. hemoptysis.

B. chronic infection with *Mycoplasma pneumoniae* and/or *Chlamydia trachomatis*.

C. changes in X-ray: recurrent atelectasis, bronchiectasis.

D. nasal polyps.

E. chronic sinusitis.

Question nr **200**

Indicate true statements concerning the anterior fontanel:
1) immediately after childbirth the skull bones overlap and the fontanel may seem smaller;
2) anterior fontanel correctly closes 6-8 weeks after childbirth;
3) tense fontanel raises suspicion of dehydration;
4) premature ossification (closing) of the anterior fontanel may lead to microcephaly;
5) delayed ossification (closing) of the anterior fontanel is observed, for example in rickets;

6) anterior fontanel correctly closes between 9^{th} and 18^{th} month of life.
The correct answer is:

A. 1,2,4,5.

B. 1,4,5,6.

C. 1,3,5,6.

D. 2,3,4,5.

E. 1,3,4,5.

Question nr **201**

Erythrocyturia in children is characteristic of:
1) nephritic syndrome;
2) acute pyelonephritis;
3) acute glomerulonephritis;
4) proximal tubular acidosis;
5) kidney stones.
The correct answer is:

A. 1,3,5.

B. 2,3,5.

C. 2,3,4.

D. only 3.

E. all the above.

Question nr **202**

A 3-year-old boy fits to 39 °C, is apathetic. During the examination, the doctor found on the skin of the right thigh three skin lesions. What characteristics of the skin lesions can point to meningococcal sepsis?

A. they appeared suddenly, do not disappear under pressure, have a dark red color.

B. appeared a few days before the fever, they are itchy.

C. they have the character of vivid lumps.

D. they are vesicles located on the erythematous area.

E. they are vesicles filled with purulent content.

Question nr **203**

Which joints are most frequently involved in the oligoarthritis onset of juvenile idiopathic arthritis?

A. small joints of the hands.

B. hips.

C. knees.

D. ankles.

E. spine.

Question nr **204**

In the laboratory studies in children with type 1 diabetes in the course of ketoacidosis the following can be observed:

A. hyperglycaemia, ketonemia, ketonuria and metabolic acidosis.

B. hypoglycaemia, ketonemia, ketonuria and respiratory acidosis.

C. hypoglycaemia, hypernatremia, ketonuria and metabolic acidosis.

D. hyperglycaemia, hypernatremia, ketonuria and respiratory acidosis.

E. hypoglycaemia, ketonemia, glycosuria and metabolic acidosis.

Question nr **205**

Influenza vaccines can be used in children at the age of:

A. > 6 months.

B. > 1 year.

C. > 3 years.

D. > 5 years.

E. > 7 years.

Question nr **206**

Which of the following are the attenuated vaccines given obligatorily to all children?
1) BCG vaccine against tuberculosis;
2) IPV polio vaccine;
3) influenza vaccine;
4) diphtheria, pertussis and tetanus vaccine;
5) measles, mumps and rubella vaccine;
6) varicella vaccine.
The correct answer is

A. 1,2,4,5.

B. 1,5.

C. 1,5,6.

D. 2,3,4,5.

E. 1,2,5.

Question nr **207**

Physical examination of a 4-month-old infant revealed signs of dyspnea, tachypnea 75/ min and diffused rales on lung auscultation. The child was born at 28 hbd, with the birth weight of 820 g. Oxygen therapy was necessary for the first two months of life. Body temperature was 36.8 °C, CRP 1 mg/L. A chest X-ray showed diffused small infiltrations within the lungs. The most probable diagnosis is:

A. alpha-1-antitrypsin deficiency.

B. bronchiolitis.

C. cystic fibrosis.

D. pneumonitis.

E. bronchopulmonary dysplasia.

Question nr **208**

A urine bacterial culture in a neonate should be performed using the urine collected:
1) to sterile container by the „mid-stream” method;
2) through the catheter placed in the urinary bladder;
3) with suprapubic aspiration;
4) with a sterile pouch attached to the skin of the perineum.
The correct answer is:

A. all the above.

B. 1,2,3.

C. 1,2,4.

D. 2,3,4.

E. 1,4.

Question nr **209**

Which set of symptoms is characteristic of acute glomerulonephritis in children?

A. haematuria, oedema, hypertension.

B. proteinuria, glycosuria, oedema.

C. phosphaturia, proteinuria, hypertension.

D. haematuria, leukocyturia, hypertension.

E. calciuria, glycosuria, hypertension.

Question nr **210**

Acute bronchitis in children is most commonly caused by:

A. *Streptococcus pneumoniae*.

B. *Klebsiella pneumoniae*.

C. *Staphylococcus aureus*.

D. *Haemophilus influenzae*.

E. viruses (*Parainfluenzae, Adenovirus, Rhinovirus, RS-virus*).

Question nr **211**

Indicate the **false** statement concerning chemoprophylaxis after the contact with a patient infected with *Neisseria meningitidis*:

A. it is recommended for anyone who stayed in the patient's home or slept in the same room during 7 days before the onset of the symptoms.

B. vaccination should be considered in not vaccinated children.

C. it consists in acyclovir given orally at a dose of 4 x 200 mg.

D. it should be applied to close contact persons preferably within 24 hours, but not later than 2 weeks after the onset of the symptoms.

E. children should receive rifampicin or ceftriaxone.

Question nr **212**

Which of the following **is not** recommended for the feeding in the treatment of cow's milk protein allergy?
1) soy protein-based formula;
2) breast-feeding by a mother on the elimination diet;
3) amino acid-based formula;
4) extensively hydrolyzed formula;
5) partially hydrolyzed formula.
The correct answer is:

A. 1,5.

B. 2,3.

C. 2,4.

D. only 2.

E. only 4.

Question nr **213**

Which of the following is more common among teenagers than pre-school children?

A. malignant bone tumors.

B. non-Hodgkin lymphoma.

C. neuroblastoma.

D. retinoblastoma.

E. Wilms' tumor.

Question nr **214**

Lumbar puncture is **contraindicated** when the following conditions are present:
1) bradycardia;
2) impaired coagulation;
3) cardio-respiratory insufficiency;

4) tachypnea;
5) high fever;
6) opisthotonus.
The correct answer is:

A. 1,2,3.

B. 2,3,4.

C. 1,3,5,6.

D. 2,3,5.

E. all the above.

Question nr **215**

General symptoms of Hodgkin's lymphoma in children include:
1) fever > 38˚C;
2) lower limb pain;
3) night sweats;
4) weight loss > 10% in the last six months;
5) muscle pain.
The correct answer is:

A. 1,2,5.

B. 2,5.

C. 1,3,4.

D. 1,2,4.

E. all the above.

Question nr **216**

A mother comes with her obese 5-year-old son to the doctor office. As an infant he had difficulty in eating, was consulted due to reduced muscle tone. During his stay in the office the child presents skin-picking behaviour. The most probable diagnosis is:

A. Prader-Willi syndrome.

B. Klinefelter syndrome.

C. Alstroem syndrome.

D. metabolic syndrome.

E. Carpenter syndrome.

Question nr **217**

Which of the following **cannot be** related to hyperthyroidism?

A. cardiac arrhythmia.

B. increased serum glucose concentration.

C. decreased muscle strength.

D. increased cholesterol concentration.

E. menstrual disorders.

Question nr **218**

Typical hemolytic-uremic syndrome in children, classified as thrombotic microangiopathy, is characterized by the following triad of symptoms:

A. polycythemia, thrombocytopenia, acute kidney injury.

B. polycythemia, thrombocytosis, acute kidney injury.

C. hemolytic anemia, thrombocytosis, chronic kidney injury.

D. hemolytic anemia, thrombocytopenia, acute kidney injury.

E. hemolytic anemia, thrombocytosis, acute kidney injury.

Question nr **219**

A maculopapular skin rash, cradle cap not responding to the treatment, swelling of the gums and abnormal teething, soft on palpation bulges of the skull, and X-ray revealing osteolytic lesions in bones of the cranial vault in a 1-year-old child are characteristic of:

A. vitamin D-resistant rickets.

B. Fanconi syndrome.

C. pseudohypoparathyroidism.

D. hypothyroidism.

E. Langerhans cell histiocytosis.

Question nr **220**

Which neoplastic tumors may develop in the abdominal cavity of a child?
1) Wilms' tumor;
2) neuroblastoma;
3) non-Hodgkin lymphoma;
4) medulloblastoma;
5) dysgerminoma.
The correct answer is:

A. 1,2.

B. 1,2,4.

C. 1,2,5.

D. 1,2,3,5.

E. all the above.

Question nr **221**

A 12-year-old boy presents in GP's office after cleaning and dressing a wound on his leg. The patient seeks the recommendation concerning tetanus prophylaxis. The boy received the full basic vaccination against tetanus, and the last booster dosis was given 6 years ago. In the opinion of the GP a risk of tetanus in this case is low. Choose the proper recommendation:

A. there is no need to give a booster dose of diphtheria-tetanus vaccine.

B. one dose of diphtheria-tetanus vaccine (Td) or tetanus toxoid should be given.

C. two doses of diphtheria-tetanus vaccine or tetanus toxoid should be given 4 weeks apart.

D. three doses of diphtheria-tetanus vaccine or tetanus toxoid should be given according to the schedule 0;1;6 months.

E. one dose of diphtheria-tetanus vaccine or tetanus toxoid should be given simultaneously with an antitoxin (specific immunoglobulin).

Question nr **222**

The features of hemolytic-uremic syndrome include:
1) hemolytic anemia;
2) thrombocytosis;

3) thrombocytopenia;
4) acute kidney injury with oliguria;
5) splenomegalia.
The correct answer is:

A. 1,3,4.

B. 1,3,5.

C. 1,2,4.

D. 1,4,5.

E. 2,4,5.

Question nr **223**

A child at preschool age is presented in GP's office. According to the parents the child has been suffering from fever over 7 days and 2 days ago they observed a bilateral facial rash and maculopapular lacy rash on the trunk. The general condition of the child is good. Which diagnosis is the most probable?

A. rubella.

B. measles.

C. scarlet fever.

D. erythema infectiosum.

E. erythema multiforme.

Question nr **224**

Parents removed a tick from the skin of their 5-year-old child. After 10 days erythema occurred in the bite mark and it gradually increased. During physical examination the erythema has 7 cm in diameter and has a clearing in the central part. What is the proper management in this case?

A. lab test should be performed to check for specific antibodies against *Borrelia burgdorferi sensu lato* with an ELISA method.

B. lab test should be performed to check for specific antibodies against *Borrelia burgdorferi sensu lato* with a western blot method.

C. lab test should be performed to check for specific antibodies against *Borrelia burgdorferi sensu lato* with an ELISA method, and then with a western blot method.

D. serological diagnostics is not necessary; doxycycline should be administered for 14 days.

E. serological diagnostics is not necessary; amoxicillin should be administered for 14 days.

Question nr **225**

Juvenile idiopathic arthritis is the most frequently occurring group of chronic inflammatory systemic diseases of connective tissue observed in the developmental age, of unknown aetiology. Which of the following describes the criteria for diagnosing this condition:

A. onset of the disease at the age under 16.

B. arthritis affecting at least two joints, lasting for over four weeks.

C. onset of the disease at the age under 16, the symptoms of arthritis lasting six weeks minimum and excluding other possible causes of arthritis from the so-called “list of exclusions”.

D. excluding infectious causes of arthritis and the onset of the disease not later than at the age of 18.

E. B and D are true.

Question nr **226**

Which from the drugs listed below is used in the treatment of pertussis?

1. trimethoprim-sulfamethoxazole;
2. azithromycin;
3. amoxicillin;
4. clarithromycin;
5. penicillin V (phenoxymethylpenicillin).

The correct answer is:

A. 1,2,4.

B. 1,3,5.

C. 1,2,3.

D. 2,4.

E. 1,5.

Question nr **227**

A patient with an enlarging erythema on the arm presented at the doctor's office. Current diameter of the erythema is about 12 cm. The doctor diagnosed erythema migrans based on the medical history and the appearance of the lesion. Which of the following should be the next step?

A. ELISA assay to detect antibodies against *Borrelia* in IgM class.

B. ELISA assay to detect antibodies against *Borrelia* in IgG class.

C. Western-Blot assay to detect antibodies against *Borrelia* in IgM and IgG classes.

D. blood examination with PCR method to detect the presence of *Borrelia* antigens.

E. start the treatment with an antibiotic chosen according to recommendations.

Question nr **228**

Celiac disease differs from the non-celiac gluten sensitivity in:

A. presence of gastrointestinal symptoms.

B. relation between the symptoms and the introduction of gluten into the diet.

C. presence of emotional disorders.

D. abnormalities in the eeg.

E. detection of partial or complete villous atrophy in the biopsy of the duodenum.

Question nr **229**

Which of the following are signs or symptoms of hypercortisolemia in children?
1) accelerated growth;
2) excessive weight gain;
3) delayed growth;
4) acne;
5) hyperpigmentation.
The correct answer is:

A. 1,2.

B. 2,3,4.

C. 3,5.

D. 1,2,5.

E. only 2.

Question nr **230**

In a 4-year-old child with recurrent respiratory tract infections, hearing impairment and snoring the physical examination showed high-arched palate, distoclusion, mouth breathing and the presence of exudation in the nasal ducts. The most probable cause of the abnormalities is:

A. chronic sinusitis.

B. chronic rhinitis.

C. hypertrophy of the pharyngeal tonsil.

D. hypertrophy of the palatine tonsils.

E. chronic otitis media.

Question nr **231**

Which of the following concerning pertussis **is false**?

A. catarrhal stage is the period of the highest infectivity.

B. vaccination or being ill gives permanent immunity.

C. macrolides are the drug of choice.

D. cough can last up to half a year.

E. mental retardation, deafness and epilepsy are permanent after-effects.

Question nr **232**

Which of the following **is not** a cause of arterial hypertension in neonates?

A. renal artery thrombosis.

B. increased intracranial pressure.

C. maternal thyrotoxicosis.

D. congenital adrenal hypertrophy.

E. hypercalcemia.

Question nr **233**

Skin lesions that occur in children, especially those in immunosuppression, in a form of small dome-shaped and pearly papules with a dimpled center are related to:

A. viral warts.

B. scabies lesions.

C. cutaneous mycosis.

D. psoriasis.

E. molluscum contagiosum.

Question nr **234**

Which of the following **cannot** be a symptom of acute adrenocortical insufficiency in children?

A. abdominal pain.

B. vomiting.

C. dehydration.

D. hypovolemia.

E. hyperglycemia.

Question nr **235**

In a neonate the signs of respiratory distress are observed after the birth: cyanosis, dyspnoe, tachypnoe and scaphoid abdomen. These are indicative of:

A. pulmonary aplasia.

B. cyanotic heart defect.

C. umbilical hernia.

D. diaphragmatic hernia.

E. foreign body in the respiratory tract.

Question nr **236**

A pregnant woman (13 weeks of pregnancy) suffering from herpes zoster is concerned about the influence of this infection on her foetus. Choose the right answer concerning this situation:

A. herpes zoster in a pregnant woman doesn't create a risk for the foetus.

B. zoster virus is potentially harmful for the foetus but only in the first 10 weeks of pregnancy.

C. to estimate a risk for the foetus the key question is whether the woman suffered from varicella in the past.

D. because of the safety of the foetus the treatment with acyclovir should be started immediately.

E. specific immunoglobulin should be given immediately.

Question nr **237**

Which of the following scales is used to assess the maturation of a neonate?

A. Tanner.

B. Glasgow.

C. NYHA.

D. Ballard.

E. Apgar.

Question nr **238**

Which of the following **is not** a contraindication to the breastfeeding?

A. active tuberculosis in the mother.

B. HIV infection in the mother.

C. herpes simplex infection of the nipple or an areola of the mamma.

D. chronic hepatitis C in the mother.

E. cytostatic treatment of the mother.

Question nr **239**

Mitochondrial disease is transmitted to the offspring:

A. by mother.

B. by father.

C. by mother or father depending on the type of inheritance.

D. by both parents.

E. by both parents, but to a different degree.

Question nr **240**

Absolute contraindications to childhood vaccination include:

A. poor nutritional status.

B. current antibiotic therapy.

C. upper respiratory tract infection with fever.

D. anaphylactic reaction to a vaccine component in history.

E. all the above.

Question nr **241**

The drug used in the first line of the treatment of idiopathic nephrotic syndrome in children is:

A. prednisone.

B. cyclosporin A.

C. chlorambucil.

D. cyclophosphamide.

E. methotrexate.

Question nr **242**

Gastroesophageal reflux in physiological conditions is a short-term phenomenon. But if it lasts long or the episodes of reflux are frequent it could be the cause of gastroesophageal reflux disease (GERD). Alarming signs of GERD **do not** include:

A. weight loss.

B. coughing attacks at night with dyspnoea.

C. heartburn.

D. swallowing disorders.

E. anaemia.

Question nr **243**

Indicate the **false** statement concerning Schönlein-Henoch purpura:

A. proteinuria and hematuria are necessary for the diagnosis.

B. incidence in boys is higher than in girls.

C. medication antigens may induce the disease.

D. benign forms, without nephropathy symptoms, are self-limiting.

E. disease is related to the presence of viral or bacterial antigens.

Question nr **244**

A 14-year-old patient was admitted to the hospital because of hypertension, edemas, proteinuria and microscopic hematuria. The lab tests showed increased ASO titres, low levels of C3 complement, normal renal function. What is the most probable diagnosis?

A. acute poststreptococcal glomerulonephritis.

B. IgA nephropathy.

C. thin basement membrane disease.

D. urinary tract infection.

E. nephrotic syndrome with minimal changes.

Question nr **245**

Very high values of acute phase indicators are characteristic of:

A. oligoarthritis onset juvenile idiopathic arthritis.

B. systemic onset juvenile idiopathic arthritis.

C. fibromyalgia.

D. apophysitis of the tibial tubercle - Osgood-Schlatter disease.

E. all of the above.

Question nr **246**

A 5-year-old boy is brought to the physician because of a 2-day history of fever and painful swelling of the left ankle. In the past he had recurrent cervical lymphadenitis caused by catalase-positive staphylococcus and was hospitalized twice because of pneumonia. Nitroblue tetrazolium blood test shows no color change. Which of the following is the most likely mechanism of the disorder?

A. adenosine deaminase deficiency.

B. complement depletion.

C. impaired phagocytic oxidative metabolism.

D. lack of CD4 positive lymphocytes.

E. developmental disorder of lymphocyte B maturation.

Question nr **247**

The sign and symptoms of hyperparathyroidism **do not** include:

A. osteoporosis.

B. recurrent peptic ulcer.

C. cirrhosis of the liver.

D. recurrent pancreatitis with lithiasis.

E. polyuria and a tendency towards urinary tract infections.

Question nr **248**

Cafe-au-lait spots are typical of:

A. Noonan syndrome.

B. Marfan syndrome.

C. neurofibromatosis type 1.

D. osteogenesis imperfecta.

E. Crouzon syndrome.

Question nr **249**

Which of the following hormones are released from the posterior lobe of the pituitary gland?

A. vasopressin and growth hormone.

B. vasopressin and prolactin.

C. vasopressin and oxytocin.

D. oxytocin and prolactin.

E. oxytocin and growth hormone.

Question nr **250**

Currently, the most common cause of acquired heart disease in children is:

A. VSD (ventricular septal defect).

B. PDA (patent ductus arteriosus).

C. Kawasaki disease.

D. rheumatic fever.

E. endocarditis.

Question nr **251**

Which of the following **is not** typical of Henoch-Schönlein purpura?

A. pathological changes within joints (inflammation, edema, pain with limited range of motion).

B. diffuse colicky abdominal pain.

C. proteinuria or the presence of albumin in urine collected after the night.

D. haematuria or erythrocyturia.

E. enlargement of the spleen.

Question nr **252**

The syndrome inherited in an autosomal dominant pattern, with the phenotype most similar to Turner syndrome (short stature, short neck, low ears), and with additional pulmonary artery stenosis and hypertrophic cardiomyopathy is:

A. Noonan syndrome.

B. Prader-Willi syndrome.

C. Angelman syndrome.

D. Turner syndrome.

E. Klinefelter syndrome.

Question nr **253**

The most common solid malignant tumor in children is:

A. leukemia.

B. primary bone tumor.

C. brain tumor.

D. liver neoplasm.

E. soft tissue sarcoma.

Question nr **254**

Which of the following signs and symptoms **is not** typical of iron-deficiency anemia?

A. headaches and dizziness.

B. weakness.

C. cardiac systolic murmur.

D. angular cheilitis.

E. bradycardia.

Question nr **255**

Live, attenuated vaccines include:
1) BCG;

2) DTP;
3) MMR;
4) OPV;
5) IPV.
The correct answer is:

A. 2,3,4.

B. 3,4,5.

C. 1,3,4.

D. 1,3,5.

E. 2,3,5.

Question nr **256**

Which of the following methods is deciding in the diagnosis of food allergy?

A. skin tests and atopy patch tests with native food allergens.

B. determination of food allergen-specific IgE concentration.

C. determination of food allergen-specific IgG concentration.

D. oral provocation test with suspicious foods.

E. positive result of any of the above tests justifies the diagnosis of food allergy.

Question nr **257**

Indicate the **false** statement concerning HHV6 virus infection:

A. it is an etiological factor of erythema contagiosum.

B. most commonly it affects children under 2 years of age.

C. fever seizures may be observed in the course of the disease.

D. typical sign of the infection in a complete blood count is neutropenia.

E. characteristic sign of the infection is a maculopapular rash on the face and torso.

Question nr **258**

A 4-year old boy presents with a fever lasting 6 days. Which of the following conditions, if they were a part of this patient's presentation, **would not** cause suspicion of Kawasaki

disease?

A. bilateral conjunctival injection.

B. cracked or fissured lips.

C. generalized polymorphous rash.

D. thrombocytopenia.

E. cervical lymph node painful enlargement.

Question nr **259**

An anxious mother reports symptoms that according to her and a parents' website require immunological diagnostics. She asks you to clarify which of the following could indicate primary immunodeficiency in her 1-year-old son:
1) three upper respiratory tract viral infections;
2) otitis media;
3) pneumonia;
4) recurrent oral aphthae;
5) persistent cradle cap;
6) lack of weight gain and the inhibition of normal development.
The correct answer is:

A. all the above.

B. 1,2,3.

C. 2,3,6.

D. 2,3.

E. only 6.

Question nr **260**

A 12-year-old dyslectic boy complains of painful nodules on the abdomen. At least 8 spots of *cafe au lait* type with the diameter of about 10 mm were noted as well as freckle-like dots in the armpits. Which specialist outpatient clinic should he be immediately referred to?

A. pedagogical one, to prevent other school problems.

B. dermatological one, because the skin lesions demand regular dermatoscopic assessment.

C. rheumatological one, because the signs indicate erythema nodosum.

D. endocrinological one, because the signs indicate insulin resistance.

E. neurological one, because the diagnostic of neurocutaneous conditions is necessary.

Question nr **261**

Enteroviral infections in children **do not** cause:

A. meningitis.

B. myocarditis and pericarditis.

C. hand, foot and mouth disease.

D. herpangina.

E. influenza.

Question nr **262**

Which of the following vaccines may be given to a woman at the 30th week of gestation?
1) against influenza (inactivated vaccine);
2) against chickenpox;
3) against tuberculosis;
4) against diphtheria, tetanus and pertussis (dTpa - an adult type of vaccine);
5) against measles, mumps and rubella.
The correct answer is:

A. only 1.

B. 1,2,3.

C. 1,4.

D. 1,4,5.

E. 4,5.

Question nr **263**

Hypercalcemia may be caused by any of the following, **except for**:

A. overdosage of vitamin D.

B. necrosis of subcutaneous adipose tissue.

C. immobilization.

D. neuroblastoma.

E. hypoparathyroidism.

Question nr **264**

Which of the following is the cytostatic of particularly high cardiotoxicity, which can lead to congestive heart failure?

A. L-asparaginase.

B. dacarbazine.

C. doxorubicin.

D. carboplatin.

E. methotrexate.

Question nr **265**

Haemolytic-uraemic syndrome is:

A. correlated with Streptococcus pneumoniae infection.

B. induced by the deficiency of complement components.

C. caused by the deficiency of protease that cleaves von Willebrand factor.

D. preceded by diarrhea caused by enteropathogenic strains of E. coli.

E. caused by calcineurin inhibitors.

Question nr **266**

According to the current Polish National Program of Immunizations, which of the statements below is **false** in case of a child with the birth weight of 1700g?

A. BCG vaccination should be postponed until the body weight has reached 2000 g.

B. vaccination against hepatitis B should be postponed until the body weight has reached 2000 g.

C. as a mandatory vaccination against diphtheria, tetanus and pertussis a vaccine with

an acellular pertussis component should be used.

D. as a mandatory vaccination the child should receive a conjugated pneumococcal vaccine.

E. vaccination against measles, mumps and rubella should be given according to the chronological age.

Question nr **267**

^{123}I-metaiodobenzylguanidine (MIBG) scintigraphy is a method used in children for the diagnosis of:

A. hepatoblastoma.

B. neuroblastoma.

C. medulloblastoma.

D. Hodgkin lymphoma.

E. osteosarcoma.

Question nr **268**

Secondary drug-induced diabetes can occur after the following drugs **except for**:

A. pentamidine.

B. L-asparaginase.

C. cyclosporine A.

D. prednisone.

E. vildagliptin.

Question nr **269**

Which of the following symptoms are typical of systemic lupus erythematosus?

A. photosensitivity, neurological disorders, acute pyelonephritis.

B. photosensitivity, neurological disorders, thrombocytosis.

C. photosensitivity, headache, pancytopenia.

D. headache, thrombocytopenia, the presence of HLA-B27.

E. headache, acute pyelonephritis, leukocytosis.

Question nr **270**

A 6-year-old boy demonstrated itchy maculopapular rash and nasal congestion twice after the ingestion of natural yogurt. The symptoms persisted up to several hours. The boy's parents suspect that their child has signs of allergy to cow milk protein. Which of the following tests would be the best to diagnose food allergy?

A. skin tests with food allergens.

B. concentration of serum specific-IgE antibodies against food allergens.

C. double blind, placebo-controlled food challenge.

D. total serum IgE concentration.

E. atopy patch test with food allergens.

Question nr **271**

Meningeal irritation symptoms observed in children include:
1) Flatau’s sign;
2) Brudzinski’s symphyseal sign;
3) Lasègue’s sign;
4) Amoss’ sign;
5) Kernig’s sign.
The correct answer is:

A. all the above.

B. 1,2,5.

C. 1,2,4,5.

D. 1,2,3,5.

E. 1,2,3,4.

Question nr **272**

The presence of abscesses, emphysema bladders, pneumothorax and pleural abscess in the radiological image of the lungs in a child indicates the diagnosis of:

A. pneumococcal pneumonia.

B. staphylococcal pneumonia.

C. viral pneumonia.

D. *Mycoplasma* pneumonia.

E. *Chlamydia* pneumonia.

Question nr **273**

Subacute sclerosing panencephalitis (SSPE) occurs with higher rate in children suffering in the early childhood (under 2 years of age) from:

A. measles.

B. mumps.

C. rubella.

D. varicella.

E. cytomegalovirus infection.

Question nr **274**

In the case of erythema migrans diagnosed in a 4-year-old boy the following antibiotics can be used:
1) amoxicillin;
2) doxycycline;
3) cefuroxime axetil;
4) azithromycin;
5) clarithromycin.
The correct answer is:

A. 1,2,3.

B. 1,2,3,4.

C. all the above.

D. 1,2,4,5.

E. 1,3,4,5.

Question nr **275**

Which of the following is the most common cause of haemolytic-uraemic syndrome in

children?

A. blood transfusion.

B. attending the playschool.

C. contact with a person suffering from diarrhea.

D. contact with farm animals.

E. viral infection.

Question nr **276**

Which of the following are used in the treatment of von Willebrand disease?
1) factor VIII concentrate with von Willebrand factor;
2) factor IX concentrate;
3) intravenous immunoglobulins;
4) dexamethasone;
5) desmopressin.
The correct answer is:

A. all the above.

B. 1,5.

C. 1,2,4.

D. 1,3,4.

E. 2,4.

Question nr **277**

A 2-year-old boy was admitted to the hospital because of a high fever in the last 7 days and neck lymphadenopathy. On the 5th day of the fever maculopapular eruptions occurred in the area of the crotch and on the trunk. Conjunctivitis, red lips and „strawberry" tongue were also noted. Laboratory tests showed elevated markers of inflammation (CRP), thrombocytosis, anemia, ALT = 100 U/L, AST = 85 U/L, normal coagulation tests. Which of the following diagnoses is the most probable?

A. Henoch-Schönlein purpura.

B. Kawasaki disease.

C. rheumatic fever.

D. scarlet fever.

E. none of the above.

Question nr **278**

Which of the following is used for the prophylaxis or the treatment of bleeding in von Willebrand disease?

A. desmopressin.

B. vitamin K.

C. factor IX concentrate.

D. frozen plasma.

E. platelets transfusion.

Question nr **279**

The most common cause of idiopathic nephrotic syndrome in children is:

A. minimal change nephropathy.

B. mesangial proliferative glomerulonephritis.

C. focal segmental glomerulonephritis.

D. IgA nephropathy.

E. acute post-streptococcal nephritis.

Question nr **280**

Jaundice, low hemoglobin levels, high reticulocyte count, elevated indirect bilirubin levels, negative direct antiglobulin test, decreased erythrocyte osmotic resistance and abnormal EMA test result point to:

A. autoimmune hemolytic anemia.

B. Fanconi anemia.

C. Blackfan Diamond anemia.

D. myelodysplastic syndrome.

E. spherocytosis.

Question nr **281**

A previously healthy 14-year-old girl comes to the physician because of a low-grade fever and a non-productive cough lasted for 7 days. Her temperature is 37.7°C. A few scattered inspiratory crackles are audible. An x-ray of the chest shows interstitial infiltrates and enlarged hilar lymph nodes. Which of the following is the most appropriate initial pharmacotherapy?

A. amoxicillin.

B. metronidazole.

C. ciprofloxacin.

D. trimethoprim-sulfamethoxazole.

E. clarithromycin or azithromycin.

Question nr **282**

A 7-month-old boy presented with a 2-day history of fever up to 39 °C. General condition was good. Physical exam revealed pharyngitis only. On the day 3 temperature normalized and multiform macular, pink-red rush fading under pressure was observed,. What is the most probable aetiology of the presented case?

A. streptococci (group A).

B. human herpes virus type 6 (HHV-6).

C. varicella-zoster virus.

D. Ebstein-Barr virus.

E. measles virus.

Question nr **283**

Pleocytosis of 600 cell/µl, with high neutrophil prevalence, high protein concentration (1.5 g/l), high lactic acid concentration, and decreased glucose concentration (decreased cerebrospinal fluid-to-serum ratio) in cerebrospinal fluid analysis points to:
1) bacterial meningitis;
2) viral meningitis;
3) tuberculous meningitis;
4) a necessity for immediate antibiotic therapy;
5) a necessity for antibiotic therapy after positive cerebrospinal fluid culture is obtained.
The correct answer is:

A. 1,5.

B. 1,4.

C. 2 only.

D. 2,5.

E. 3,4.

Question nr **284**

The treatment recommended for acute sublaryngeal infection may include:
1) intramuscular dexamethasone;
2) inhalled budesonide;
3) inhalled adrenaline;
4) oral prednisone;
5) intramuscular adrenaline.
The correct answer is:

A. 1,3.

B. 2,3.

C. 2,4,5.

D. all of the above.

E. 1,2,3,4.

Question nr **285**

A control chest radiography may be indicated in children treated for pneumonia in the case of:
1) persistent abnormalities on auscultation (at the end of treatment);
2) presence of lung abscess in previous exam;
3) presence of atelectasis in previous exam;
4) presence of pleural exudate in previous exam;
5) severe course of pneumonia.
The correct answer is:

A. 1,3.

B. 2,3.

C. 2,4,5.

D. all of the above.

E. 1,2,3,4.

Question nr **286**

The mother of a 4-year-old child (with uncontrolled asthma) has been diagnosed with influenza (she has been symptomatic since yesterday). The child is a household contact to the mother. Please indicate the appropriate treatment for the child:
1) start oseltamivir (neuraminidase inhibitor) at a prophylactic dose;
2) recommend seeing the doctor immediately if the symptoms of influenza develop in the child;
3) start oseltamivir at a therapeutic dose if the child has a positive diagnostic test for influenza;
4) start oseltamivir at a prophylactic dose only when the child is symptomatic or has a positive influenza test;
5) refer the child to hospital.
The correct answer is:

A. 1,3.

B. 2,3.

C. 2,4.

D. 1,2,3.

E. only 5.

Question nr **287**

The parents checked at evening hours into emergency dept. with a 12-year-old son who suffered from nausea, vomiting, pain during micturition that radiated to the left groin area, and left lumbar pain since morning. On physical examination, tenderness in the abdominal area and positive Goldflam syndrome on the left side were noted. Laboratory test results revealed normal blood cell count and kidney function, increased CRP, and erythrocyturia in urinalysis. Abdomen ultrasound showed left-sided hydronephrosis. The left ureter was not visible. The right diagnosis is:

A. urinary system stones.

B. acute pyelonephritis.

C. rapidly progressive glomerulonephritis.

D. peritonitis.

E. SARS-CoV-2 infection.

Question nr **288**

Indicate which of the statements regarding children with confirmed COVID-19 infection are true:
1) over 80% of the children tested have mild infection (are mildly symptomatic or asymptomatic);
2) the high risk groups include, between others, newborns, children with chronic kidney disease, children with obesity;
3) infants and children under 2 years of age always need to be seen by a doctor;
4) oxygen saturation measurement is an essential part of the examination;
5) the markers that can be useful to monitor the cytokine storm include IL-6, ferritin, LDH, and D-dimers.
The correct answer is:

A. all of the above.

B. 1,2,3,4.

C. 3,4,5.

D. 2,3,4,5.

E. 1,2,4.

Question nr **289**

Initial ambulatory treatment for severe asthma exacerbation in children under 5 years of age consists in:

A. doubling the dose of inhaled steroids.

B. administration of inhaled short-acting β-mimetics.

C. administration of inhaled long-acting β-mimetics.

D. addition of anti-leukotriene drugs in treatment.

E. administration of oral long-acting theophylline.

Question nr **290**

Indicate **false** statement regarding allergic contact dermatitis:

A. dermal lesions may be asymmetric and occur not only at the contact site but also at

distant parts of the body.

B. type IV of immune response is involved in the development of allergic contact dermatitis.

C. the symptoms develop within 15-30 min. after exposure to allergen.

D. glucocorticosteroids and calcineurin inhibitors are used in therapy.

E. dermal lesions are accompanied by itching.

Question nr **291**

In contrast to older children and teenagers, the most common neoplastic diseases among children under 5 years of age include:

A. acute lymphoblastic leukaemia, cancers, lymphomas.

B. acute lymphoblastic leukaemia, brain tumours, bone tumours.

C. acute lymphoblastic leukaemia, neuroblastoma, Wilms' tumour.

D. retinoblastoma, brain tumours, bone tumours.

E. retinoblastoma, cancers, lymphomas.

Question nr **292**

A 3-year-old boy was admitted to emergency dept. due to high fever of > 39.5°C lasting for two days, abdominal pain, apathy, lack of appetite and urine odour. Urinalysis showed leukocyturia and the presence of nitrites. Indicate appropriate treatment:

A. hospitalization and intravenous ampicillin.

B. oral ciprofloxacin for 7 days.

C. second- or third-generation cephalosporin, intravenously, orally or sequentially.

D. sulphamethoxazole with trimetoprim for 5 days.

E. nitrofurantoin for 5 days.

Question nr **293**

A 6-month-old infant was admitted to emergency dept. because of inexhaustible cry and anxiety persisting for 3 hours. The parents observed leg curling and pale skin. The child refused to take food and vomited twice since the morning. Physical examination

revealed abdominal bloating and some palpable mass in the abdomen, normal body temperature, and a trace of “currant jelly-like” stool on a diaper. What is the most likely diagnosis?

A. acute appendicitis.

B. salmonellosis.

C. Meckel’s diverticulum.

D. infant colic.

E. intussusception.

Question nr **294**

Indicate true statements regarding measles:
1) IgM antibodies appear after 1-2 days of rash;
2) vitamin A at high doses can be recommended for treatment;
3) ascending macular and maculopapular rash is typical;
4) the risk for subacute sclerosing panencephalitis is higher when the infection occurs within the first few years of life;
5) the period of infectivity lasts for up to 5 days after rash resolution.
The correct answer is:

A. 1,2,3.

B. 1,2,4.

C. 1,3,5.

D. 2,4,5.

E. 1,2,5.

Question nr **295**

Which of the vaccinations within the scope of the Preventive Vaccination Programme are included in the list of vaccinations recommended for medical personnel at the paediatric ward:
1) against hepatitis A virus (HAV);
2) against hepatitis B virus (HBV);
3) against influenza;
4) against pertussis;
5) against Neisseria meningitidis.
The correct answer is:

A. 1,2,3.

B. 1,2,4.

C. 1,3,5.

D. 2,3,4.

E. 1,3,4,5.

Question nr **296**

A mother of a 5-month-old infant reports to have fever and cough lasting for 3 days. On the day of examination, type B influenza was diagnosed (confirmed by rapid test result). The mother is breastfeeding and was vaccinated against flu while pregnant. Indicate relevant treatment in relation to the child's exposure to influenza:

A. post-exposure prophylaxis using oseltamivir, at 3 mg/kg body weight, in view of the protective benefits for the child.

B. post-exposure prophylaxis is not necessary as the child is breastfed.

C. post-exposure prophylaxis is not necessary as the child is breastfed by mother vaccinated against flu when pregnant.

D. post-exposure prophylaxis is not recommended as the mother developed type B influenza.

E. post-exposure prophylaxis is not recommended because of the time that has passed since exposure.

Question nr **297**

In the diagnostics of Kawasaki disease, the clinically significant symptoms **do not** include:

A. fever lasting for more than 5 days.

B. erythema of the hands and feet.

C. bilateral conjunctivitis.

D. lip swelling and cracking.

E. pneumonia.

Question nr **298**

Haematological abnormalities are a common symptom of acute lymphoblastic leukaemia in children. Blood morphology test shows:
1) anaemia;
2) thrombocytopenia;
3) low white blood cell count;
4) normal white blood cell count;
5) high white blood cell count.
The correct answer is:

A. all of the above.

B. 1,2,3.

C. 1,2,4.

D. 1,2,5.

E. 1,5.

Question nr **299**

Indicate true statements regarding mycoplasmatic pneumonia:

A. rapid onset of symptoms and high fever are typical characteristics.

B. in the course of disease, upper respiratory symptoms and mild fever develop gradually.

C. characteristic rash and diarrhoea occur.

D. the disease is asymptomatic, with diagnosis based on laboratory test results.

E. all of the above.

Question nr **300**

Although the assessment of cytogenetic and molecular traits is not required in the diagnosis of acute lymphoblastic leukaemia (ALL), they are among the basic classification criteria of ALL. Indicate **false** statements regarding ALL:

A. in ALL, B lymphoblasts are almost always positive for B CD19 markers.

B. in ALL, B lymphoblasts must be negative for CD3 (T cell antigen).

C. in ALL, B lymphoblasts must be negative for myeloperoxidase (MPO).

D. B-ALL diagnosis should be avoided when the number of lymphoblasts is <20%.

E. B-ALL is always diagnosed when the number of lymphoblasts > 5%.

Question nr **301**

A 15-year-old boy came to the primary care unit because of fever (>38.0 C), fatigue, lack of appetite, profuse night sweats and losing weight. Physical examination confirmed weight loss (>= 10% over last six months), painless cervical and supraclavicular lymphadenopathy. Indicate the most probable diagnosis:

A. acute lymphoblastic leukaemia.

B. acute myeloid leukaemia.

C. Burkitt's lymphoma.

D. Hodgkin's lymphoma.

E. chronic myeloid leukaemia.

Question nr **302**

Hodgkin's lymphoma can be diagnosed based on the findings of all measures listed below, **except for**:

A. excision biopsy of enlarged lymph node.

B. detecting Hodgkin/Reed-Sternberg cells in histopathology (HRS).

C. fine-needle aspiration biopsy of lymph node.

D. bone marrow biopsy in patients in an advanced stage of the disease.

E. diagnostic imaging, including positron emission tomography (PET).

Question nr **303**

The leading cause of viral meningitis in children is:

A. enteroviruses (EV).

B. parechoviruses.

C. herpesviruses.

D. lymphocytic choriomeningitis virus (LCMV).

E. influenza virus.

Question nr **304**

Early treatment of pertussis in infants (within the first seven days since the onset of symptoms) can reduce the symptoms of the disease. To effectively eradicate pertussis from the nasopharynx, you should administer:

A. macrolides.

B. ampicillin.

C. penicillin.

D. second-generation cephalosporins.

E. aminoglycoside.

Question nr **305**

Which is the **false** statement concerning vaccination against measles, mumps and rubella?

A. children who were not vaccinated at the age of 6 years can only be given the misssing vaccination at the age of 10 years.

B. an earlier vaccination with a vaccine against measles is not a contraindication for a vaccination with a combined measles, mumps and rubella vaccine (MMR vaccine).

C. children who were administered two doses of a combined measles, mumps and rubella vaccine (MMR vaccine) in the previous years of their lives, do not require administration of the third dose of the vaccine.

D. a past medical history of measles, mumps and rubella does not constitute a contraindication for vaccination.

E. a vaccination with a combined measles, mumps and rubella vaccine (MMR vaccine) is not recommended 4 weeks prior to a planned pregnancy.

Question nr **306**

The following rules should be abided by while performing preventive vaccinations:
1) the interval between the administration of two different vaccines which contain live microorganisms should not be shorter than 4 weeks;
2) the interval between the administration of two different vaccines which do not contain live microorganisms is arbitrary as long as a necessary interval to avoid the adverse events following immunisation (AEFI) overlapping with the subsequent vaccination is

maintained;
3) the interval between the administration of a vaccine which contains live microorganisms, and a vaccine which does not contain live microorganisms is arbitrary as long as a necessary interval to avoid the possible adverse events following immunisation (AEFI) overlapping with the subsequent vaccination is maintained;
4) the interval between the subsequent doses of the same vaccine should be in accordance with the vaccine schedule;
5) the interval between the subsequent doses of the same vaccine may be extended but should not be shortened.

A. 1,2,3.

B. 1,2,3,4.

C. 3,4,5.

D. 2,3,4.

E. all of the above.

Question nr **307**

Which is the true statement concerning simple febrile seizures?
1) they are generalized, usually tonic-clonic;
2) their duration is below 15 minutes, usually 5 minutes;
3) they recur within 24 hours;
4) after a seizure, Todd's paralysis is observed;
5) they are the most frequent febrile seizures.

A. 1,2,5.

B. 1,3,5.

C. 2,3,4,5.

D. 2,3,5.

E. all of the above.

Question nr **308**

Which are the true statements concernig whooping cough?
1) the disease starts with non-specific symptoms of a catarrhal inflammation of the airway which last 10-14 days;
2) following the inflammatory phase a paroxysmal cough occurs, which lasts 4-6 weeks;
3) a paroxysmal cough may be followed by apnoea of various duration;
4) between attacks of cough in uncomplicated whooping cough the patient's condition is

good;
5) the recovery period lasts several weeks.

A. 1,3.

B. 1,3,5.

C. 2,3,4,5.

D. 2,3,5.

E. all of the above.

Question nr **309**

Which is the correct procedure following a tick bite?

A. prophylactic administration of an antibiotic.

B. examination of the tick for the presence of pathogens.

C. examinations for tick-born diseases.

D. implementation of treatment in the tick-bitten person, in whom the presence of the pathogen has been established.

E. removal of the tick and disinfection of the site of the bite on the skin.

Question nr **310**

Which of the prophylactic doses of vitamin D in children **<u>are incorrect</u>** for the indicated age group?

A. 600 IU depending on the body mass and vitamin D supply in the children's diet – 1-10 years old.

B. 1000 IU depending on the body mass and vitamin D supply in the children's diet – 1-10 years old.

C. 800 IU depending on the body mass and vitamin D supply in the children's diet – 11-18 years old.

D. children 11-18 years old – 1000 IU depending on the body mass and vitamin D supply in the diet.

E. infants 7-12 months old – 1000-2000 IU depending on the amount of vitamin D ingested with food.

Question nr **311**

What are the clinical symptoms of Wilms' tumour (nephroblastoma)?
1) abdominal tumour;
2) haematuria;
3) abdominal pain;
4) anorexia;
5) hypertension.

A. 1,2,3.

B. 1,2,3,5.

C. 1,3,4,5.

D. 2,5.

E. all of the above.

Question nr **312**

What are the clinical symptoms of neuroblastoma?
1) pallor;
2) loss of body weight;
3) bone pain;
4) exophthalmos;
5) enlargement of the cervical lymph nodes.

A. 1,2,3.

B. 1,2,3,5.

C. 3,5.

D. 2,3,5.

E. all of the above.

Question nr **315**

Indicate the true statements concering celiac disease:
1) Dühring's disease is its variant.
2) not adhering to the gluten-free diet increases the risk of development of lymphomas in celiac disease patients.
3) detecting the presence of HLA DQ2 and HLA DQ8 constitutes a 100% confirmation of the diagnosis.

4) the first symptom in a child can be slowing down of the somatic development.
5) there may be a secondary occurrence of lactase deficiency.
The correct answer is:

A. 1,2,3.

B. 1,2,4,5.

C. 2,3,4.

D. 3,4,5.

E. all the above.

Question nr **316**

A 16-year-old male patient reported to a physician due to a sore throat, fever up to 39°C and enlarged cervical lymph nodes. There was a sudden onset of the symptoms. The patient does not cough, does not have a runny nose. The physical examination revealed reddening of the palatine tonsils, no abnormalities were detected, otherwise. Indicate the right further management:

A. antipyretic treatment, local anaesthetics into the throat.

B. antipyretic treatment, treatment with amoxicillin for 7 days.

C. antipyretic treatment, treatment with phenoxymethylpenicillin for 10 days.

D. a rapid test for *Streptococcus pyogenes* infection, and if the test is positive, treatment with phenoxymethylpenicillin for 10 days.

E. a rapid test for *Streptococcus pyogenes* infection, and if the test is positive, treatment with phenoxymethylpenicillin for 7 days.

Question nr **317**

What are the most common pathogens that cause of meningitis in newborns?

A. viruses.

B. viruses and *Neisseria meningitidis*.

C. *Neisseria meningitidis*, *Haemophilus influenzae, Streptococcus pneumoniae*.

D. *E. coli, Streptococcus agalactiae, Listeria monocytogenes, Klebsiella pneumoniae*.

E. *Streptococcus pyogenes*.

Question nr **318**

Due to the necessity to fill the vascular bed in case of sepsis in a child who weighs 15kg, within the first ten minutes cristalloids should be administered in the volume of approximately:

A. 15 mL.

B. 50 mL.

C. 70 mL.

D. 150 mL.

E. 750 mL.

Question nr **319**

Indicate the right diagnosis in a 3-year-old boy with the following capillary blood gas analysis parameters - pH 7.3, pCO_2 55 mmHg, HCO_3^- 22 mmol/L, BE -2 and pO_2 50 mmHg:

A. compensated respiratory acidosis.

B. compensated metabolic acidosis.

C. uncompensated respiratory acidosis.

D. uncompensated metabolic acidosis.

E. the results fall within the range of the capillary blood gas standard for a 3-year-old child.

Question nr **320**

Human papilloma virus infection is one of the most common viral infections. Small common warts located on the extremities may be treated with all of the following **except for**:

A. a 10-20% salicylic ointment.

B. a 5-10% lactic acid ointment.

C. a 1% mupirocin ointment.

D. a preparation with dimethyl sulfoxide.

E. a preparation with 5-fluorouracil.

Question nr **321**

Which of the following is true about pyloric hypertrophy (pylorostenosis)?

A. it is typically diagnosed between the first and the second year of age.

B. excessive jaundice is one of its typical symptoms.

C. projectile vomiting with bile-stained content.

D. starvation stools due to chronic malnutrition are a characteristic symptom.

E. the treatment of choice is pyloromyotomy.

Question nr **322**

Glycogenoses are rare metabolic diseases in which glycogen is stored in different organs. Which of the following is a glycogenosis connected with an enzymatic defect of lysosomal alpha-glucosidase and occurs in two variants - a childhood one and a juvenile one?

A. Pompe disease (type II).

B. Hers' disease (type VI).

C. Tarui's disease (type VII).

D. Cori's disease (type III).

E. McArdle's disease (type V).

Question nr **323**

Which of the following is the most common extracranial tumour occurring in children below 5 years of age?

A. neuroblastoma.

B. medulloblastoma.

C. rhabdomyosarcoma.

D. osteosarcoma.

E. Ewing's sarcoma.

Question nr **324**

Which of the following is true about contagious impetigo?

A. it mostly affects adolescents above 16 years of age.

B. it is caused by *Herpes* viruses.

C. it is characterised by the formation of blisters and spots with honey-coloured scabs.

D. macrolides are the first line of treatment.

E. ointments with azole agents facilitate the healing process.

Question nr **325**

Which of the following diseases is associated with niacin/nicotinamide deficiency?

A. pellagra.

B. beriberi.

C. scurvy.

D. night blindness.

E. osteoporosis.

Question nr **326**

Which of the following is true about Lyme disease?

A. erythema migrans occurring typically 12 months following the bite is its characteristic symptom.

B. nearly 100% of cases of isolated facial nerve palsy with pleocytosis in PMR are caused by Lyme disease.

C. doxycycline is the treatment of choice in children below 9 years of age.

D. a western blot test should be the first test performed to diagnose Lyme disease.

E. suspected neuroborreliosis is a contraindication for lumbar puncture due to the risk of an increase in intracranial pressure.

Question nr **327**

Legionella pneumophila infection was a serious problem in Poland last year. Which of

the following is **false** about legionellosis?

A. in small children it occurs quite often but has a mild course.

B. macrolides are the treatment of choice.

C. the infection spreads by warm water and is facilitated by inhaling moist aerosols.

D. patient isolation is not necessary.

E. the usual onset is between 1 and 10 days after exposure.

Question nr **328**

Which condition **is not** caused by bacteria from the *Streptococcus* group?

A. proctitis.

B. streptococcal pharyngitis.

C. lichen planus.

D. erysipelas.

E. scarlet fever.

Question nr **329**

Cyanotic congenital heart defects include:
1) Fallot's tetralogy;
2) dextro-transposition of the great arteries;
3) Eisenmenger syndrome;
4) ventricular septal defect;
5) aortic stenosis.
The correct answer is:

A. 1,2,5.

B. 2,3.

C. 1,2,3.

D. 1,2,3,4.

E. all the above.

Question nr **330**

The most common disease inherited in an autosomal recessive manner is:

A. cystic fibrosis.

B. phenylketonuria.

C. Li-Fraumeni syndrome.

D. Gorlin syndrome.

E. neurofibromatosis type I.

Question nr **331**

Iron-deficiency anaemia is characterised by:
1) increased MCV;
2) increased MCH;
3) increased ferritin;
4) increased transferrin;
5) decreased TIBC.
The correct answer is:

A. 1,2,3.

B. 1,2.

C. 4,5.

D. only 4.

E. 3,4,5.

Question nr **332**

Which of the following statements is true about neuroblastoma?
1) it is most commonly located in the kidneys;
2) tumour cells display an increased uptake of MIBG in scintigraphy;
3) it is the most common in schoolchildren;
4) it is the most common in infants and small children;
5) it may infiltrate the bone marrow.
The correct answer is:

A. 1,3,5.

B. 1,4,5.

C. 2,4,5.

D. only 2.

E. 1,2,3,5.

Question nr **333**

A 3-year-old child has had a fever of 39.5°C for two days, which has been causing the child to wake up screaming at night and have a poor appetite. The child has had a watery runny nose for five days. Also, a purulent discharge from the right ear has been observed. What is the optimal course of action?

A. discharge culture should be performed and, once the results have been obtained, a targeted antibiotic therapy should be instituted.

B. pneumonia should be diagnosed and empirical antibiotic therapy should be instituted.

C. in all likelihood, it is an acute uncomplicated inflammation of the upper airways. Symptomatic treatment of the runny nose should be instituted.

D. acute purulent otitis media should be diagnosed and empirical antibiotic therapy should be instituted.

E. acute non-purulent otitis media should be diagnosed and no action should be taken - the child should remain under careful observation for 48 hours.

Question nr **334**

Which of the following statements are true about compulsory vaccinations in Poland?
1) vaccination against rotaviruses is performed with an intramuscular polysaccharide vaccine;
2) in the first day of a newborn’s life, the newborn is vaccinated against tuberculosis and receives the first dose of a vaccine against hepatitis B;
3) the recommended interval between two live vaccines containing attenuated pathogens is 4 weeks;
4) the MMR vaccine contains live-attenuated viral pathogens;
5) vaccination against tick-borne encephalitis is compulsory for all children below 8 years of age.
The correct answer is:

A. 1,3,5.

B. 2,3,4.

C. 2,4,5.

D. 2,4.

E. 1,3,4.

Question nr **335**

Growth charts should be used as a point of reference for blood pressure in children. The charts take into account:
1) the age;
2) the sex;
3) the weight;
4) the height;
5) the height centile.
The correct answer is:

A. 1,2,5.

B. 1,2,3.

C. 1,2,4.

D. 1,3,5.

E. 2,3,4.

Question nr **336**

A pulse of 60/min in a 3-month-old infant:

A. is normal.

B. is tachycardia.

C. is bradycardia.

D. may be normal - depending on the weight.

E. may be normal - depending on the height.

Question nr **337**

According to Polish recommendations:
1) the first-line course of action in the case of pneumonia in a 3-week-old child is careful observation without antibiotic therapy;
2) a mild-course community-acquired pneumonia in children between 4 months and 5 years of age may not be treated with antibiotics as most infections are viral;
3) *Listeria monocytogenes* is responsible for most cases of pneumonia in children above 5 years of age;

4) viral pneumonia cannot be distinguished from bacterial pneumonia by means of a radiological examination;
5) macrolides should be used as drugs of first choice in the treatment of pneumonia in children above 5 years of age with type I hypersensitivity to penicillin.
The correct answer is:

A. 2,4,5.

B. 1,3,4.

C. 1,2,4.

D. 1,2,3.

E. 3,4,5.

Question nr **338**

Stage 1 of the Tanner scale means that:

A. the child does not display any characteristics of puberty.

B. pubertal development of the child is complete.

C. the child’s pubic hair is similar to the pubic hair of an adult.

D. breast buds are formed in the case of a girl, while the testes have increased their volume above 4 ml in the case of a boy.

E. a menarche has occurred in the case of a girl, while a pubertal growth spurt has occurred in the case of a boy.

Question nr **339**

Which of the following statements are true about meningitis in children?
1) it requires an immediate institution of empirical antibiotic therapy before its aetiology is established;
2) most cases are of viral aetiology;
3) the symptoms might include: vomiting accompanied by headaches, nape stiffness, photophobia, fever;
4) cerebrospinal fluid analysis may reveal an increase in inflammatory cells and protein, regardless of the aetiology;
5) it always leads to irreversible changes in the brain.
The correct answer is:

A. 1,5.

B. 2,3,4.

C. 2,3,5.

D. 1,4,5.

E. 1,2,3.

Question nr **340**

When diabetes type 1 is diagnosed in children, the following abnormalities may be observed in lab tests?
1) increased levels of glycated haemoglobin;
2) the presence of anti-GAD antibodies in the blood;
3) glycosuria;
4) a high insulin concentration in the blood;
5) metabolic alkalosis.
The correct answer is:

A. 1,3.

B. 1,2,3.

C. 2,3,4.

D. 1,4,5.

E. 3,4,5.

Question nr **341**

Congenital adrenal hyperplasia may be detected in a screening test of a newborn when a dried blood spot test reveals:

A. increased ACTH.

B. ionic disorders: hypernatraemia and hypokalaemia.

C. hypoglycaemia.

D. increased 17-hydroxyprogesterone.

E. increased cortisol.

Question nr **342**

Which of the following statements are true about constipation in children?

1) it is the most common cause of abdominal pain in children;
2) macrogols are the drugs of choice in the treatment of children above 6 months of age;
3) it is caused by a high amount of fibre in the child's diet;
4) Hirschsprung's disease is a common cause;
5) the treatment of functional constipation is long-lasting and often requires at least 2 months of pharmacotherapy.
The correct answer is:

A. 1,2,5.

B. 1,2,4.

C. 2,3,4.

D. 2,3,5.

E. 3,4,5.

Question nr **343**

Calculate the basic daily fluid requirements for a 27-kg healthy child using the Holliday-Segar formula:

A. 1350 mL.

B. 1640 mL.

C. 1700 mL.

D. 2120 mL.

E. 2700 mL.

Question nr **344**

Features characteristic of complex febrile seizures are:
1) focal onset;
2) seizure lasting <15 minutes;
3) postictal paresis;
4) >1 seizure/24 hours;
5) most frequent in children aged 6 months to 9 years;
6) history of prior brain injury.
The correct answer is:

A. 1,2,3,4,5.

B. 1,3,5,6.

C. 1,3,4,6.

D. 3,6.

E. 1,3,6.

Question nr **345**

Differential diagnosis of Epstein-Barr virus (EBV) infection relies on specific antibodies. Select the correct antibody test result in a patient with past infection (the patient had the infection previously):
1) anti-VCA IgM - positive result;
2) anti-VCA IgM - negative result;
3) anti-VCA IgG - positive result;
4) anti-VCA IgG - negative result;
5) anti-EA IgG - positive result;
6) anti-EA IgG - negative result;
7) anti-EBNA - positive result;
8) anti-EBNA - negative result.
The correct answer is:

A. 1,3,5,6.

B. 2,4,6,8.

C. 2,3,6,7.

D. 1,4,6,8.

E. 2,4,5,8.

Question nr **346**

Select the **false** statement about nephroblastoma:

A. it is commonly referred to as “Wilms’ tumour”.

B. the basis for initiating treatment is a diagnostic biopsy with histologic examination.

C. treatment involves preoperative chemotherapy.

D. 5-year survival rate for stage I nephroblastoma is >95%.

E. stage V nephroblastoma refers to bilateral kidney involvement.

Question nr **347**

Select the correct statement(s) about spinal muscular atrophy (SMA):

A. Werdnig-Hoffmann disease (SMA I) is the most common type.

B. typical onset of Kugelberg-Welander disease (SMA III) is >18 months of age.

C. without causal treatment the prognosis in Werdnig-Hoffmann disease (SMA I) is poor.

D. Kugelberg-Welander disease (SMA III) is typically associated with muscle tremor.

E. all answers are correct.

Question nr **348**

The current 2025 immunization schedule includes both mandatory and recommended vaccinations. Which of the following are recommended vaccinations?
1) BCG - vaccination against tuberculosis;
2) TBE - vaccination against tick-borne encephalitis;
3) COVID-19 - vaccination against COVID-19;
4) MenB - vaccination against meningococcal serogroup B;
5) MenACWY - vaccination against meningococcal serogroups A, C, W, Y;
6) IIV - inactivated influenza vaccination;
7) LAIV - live influenza vaccination in a nasal spray;
8) MMR - vaccination against measles, mumps and rubella.
The correct answer is:

A. 1,8.

B. 2,3,4,6,7.

C. 2,3,4,5,6,7.

D. 2,3,4,5,6,7,8.

E. 2,3,4,5,6.

Question nr **349**

Indicate the **false** statement about subglottic laryngitis:

A. subglottic laryngitis is diagnosed on the basis of clinical symptoms, and diagnostic tests are usually not necessary.

B. scientifically proven management for most cases of croup is oral or intramuscular administration of a single dose of dexamethasone 0.15-0.6 mg/kg body weight

(maximum, 8 mg).

C. an alternative approach is the administration of a single dose of nebulized budesonide 2 mg.

D. in more severe cases it is also possible to use 1% nebulized adrenaline (epinephrine) at a dose of 5 mL/kg body weight.

E. use of antibiotic therapy in subglottic laryngitis is not justified.

Question nr **350**

Select the correct recommendations for the management of community-acquired pneumonia in children:
1) it is not recommended to routinely perform blood cultures in children with community-acquired pneumonia treated on an outpatient basis;
2) blood cultures can be helpful in children with community-acquired pneumonia in severe condition;
3) it is recommended to routinely perform sputum culture and a nasopharyngeal swab in children with community-acquired pneumonia;
4) sputum culture should be performed also in children in good general condition;
5) before ordering cultures, it is recommended to perform a cytologic evaluation of the quality of the samples;
6) if pleural effusion is detected in a child with community-acquired pneumonia and the amount of pleural fluid is sufficient for thoracentesis, it is not necessary to perform fluid collection for microbiologic examination;
7) it is not recommended to routinely perform serologic studies to identify the aetiology of community-acquired pneumonia in children;
8) it is recommended to test nasopharyngeal lavage samples for viral antigens, and in particular for respiratory syncytial (RS) virus, in all children regardless of age who are admitted to hospital due to community-acquired pneumonia.
The correct answer is:

A. 1,2,5,7.

B. 1,2,3,5,7.

C. 1,2,5,7,8.

D. 1,2.

E. all above mentioned.

Question nr **351**

Thrombophilia **does not** include:

A. antithrombin deficiency.

B. protein C deficiency.

C. protein S deficiency.

D. activated protein C (APC) resistance.

E. haemophilia A.

Question nr **352**

The first-line treatment in a 16-year-old child >40 kg with a diagnosed stage 1 essential hypertension includes all of the listed agents **except for**:

A. beta-blocker.

B. ACE inhibitor.

C. calcium channel blocker.

D. diuretic.

E. alpha-blocker.

Question nr **353**

Indicate the **false** statement regarding the clinical staging of Hodgkin lymphoma:

A. all stages are subdivided into stages A and B.

B. the general symptoms used for the classification into stages A and B in the course of the clinical staging of Hodgkin lymphoma include body weight loss of >10% over the last 6 months, unexplained fever of >38°C, night sweat.

C. the classification into stage A is based on the absence of general symptoms.

D. stage IV refers to a diffuse or disseminated involvement of one or more extralymphatic organs, with or without involvement of the lymph nodes.

E. stage V refers to the spread to the central nervous system and cerebrospinal fluid, involvement of the lymph nodes on both sides of the diaphragm, and malignant pleural or peritoneal effusion without any other extralymphatic lesions.

Question nr **354**

Indicate the **false** statement regarding acute renal failure in children:

A. viral infections, such as viral hepatitis, can be the renal cause of acute renal failure.

B. the use of sulfonamides is the most common pre-renal cause of acute renal failure.

C. dehydration and an insufficient fluid intake is the pre-renal cause of acute renal failure.

D. the most common causes of acute renal failure are pre-renal causes (about 70%).

E. congenital urinary abnormalities, such as structural anomalies of the urinary tract, predispose to extrarenal acute renal failure.

Question nr **355**

Indicate the true statements regarding bone tumors in children:
1) osteosarcoma is the second most common bone tumor in children;
2) the characteristic feature of osteosarcoma is that it metastasizes to the lungs;
3) the first-choice diagnostic test for bone lesions is an MIBG (3-iodobenzylguanidine) scintigraphic scan;
4) methotrexate is not used in the course of treatment for osteosarcoma;
5) Ewing sarcoma can also occur in the soft tissues;
6) if distant metastases is detected (Stage IV), Ewing sarcoma is associated with a 5-year survival in 15-20% of cases.
The correct answer is:

A. all the above.

B. 1, 2, 3.

C. 3, 4, 6.

D. 2, 5, 6.

E. 2, 6.

Question nr **356**

A 4-year-old child with an abdominal lump on an ultrasound scan is admitted into the Pediatric Emergency Department. The lump is localized in the plan view of the right kidney, size: 8x7x7 cm. It is not encapsulated and infiltrates the adjacent structures. There are metastases to the local lymph nodes. A physical examination has revealed edema of the temporozygomatic region with bilaterally visible periorbital hematomas. Indicate the true statement(s) regarding the above clinical scenario (diagnosis and prognosis):
1) one of the steps to ensure proper diagnostic workup is to order a 24-hour urine collection to carry out tests e.g. for metanephrines and vanillylmandelic acid;

2) a biopsy of the lump is contraindicated due to worsening of the prognosis;
3) the presence of the *N-MYC* amplification in the tumor tissues improves the prognosis;
4) the disease stage as described above is referred to as IVS;
5) the patient's prognosis is good (a 5-year survival in >70% of cases).
The correct answer is:

A. only 1.

B. 1,2.

C. 1,2,3.

D. only 2.

E. all the above.

Question nr **357**

A 5-month-old infant is admitted to the Pediatric Emergency Department, presenting with symptoms of a respiratory infection which started a few days earlier, following a cold and cough for several days. The child had a fever of up to 39°C, rapid breathing rate (50/min) and difficulty breathing, with clearly detectable intercostal retractions. A physical examination revealed audible crackles in both lungs and tachycardia. A radiological study of the chest showed shadowing in the lungs, suggestive of an inflammation. Laboratory test results showed an elevated CRP level (132 mg/l) and elevated WBC count (17,000/µl). Indicate the **false** statement:

A. given the age of the child, a confirmed pneumonia is an indication for hospital treatment.

B. fluoroquinolones and 3rd generation cephalosporins, including ceftriaxone, are first-line drugs for children of <1 year of age.

C. macrolides are rarely used due to the significant resistance of *Streptococcus pneumoniae*.

D. blood culture tests should be carried out in patients with severe pneumonia.

E. bacterial causes of pneumonia in infants include, e.g., pneumococci, *Haemophilus influenzae*, and staphylococci.

Question nr **358**

Indicate true statement(s) regarding pre-excitation syndromes:
1) a pre-excitation syndrome is a premature activation of the ventricles through an accessory pathway connecting the atrium and ventricle;
2) WPW (Wolff-Parkinson-White) syndrome features prolonged PR interval and QRS

complex widened by the delta wave;
3) LGL (Lown-Ganong-Levine) syndrome features shortened PR interval and QRS complex widened by the delta wave;
4) digoxin is the medication of choice in the treatment of WPW syndrome;
5) clinical symptoms of pre-excitation syndromes occur during bradycardia;
6) from around the age of 5, ablation of the abnormal conduction pathway is a possible management option.
The correct answer is:

A. only 1.

B. 1, 6.

C. 1, 2, 3, 6.

D. all of the above.

E. none of the above.

Question nr **359**

A 4-month-old infant was brought to the paediatric Emergency Department by his father due to watery nasal discharge. The parent, after reading information online, suspects acute sinusitis. Indicate true statement:

A. the maxillary and ethmoid sinuses become aerated at 12 months of age.

B. the sphenoid sinuses become aerated after 3 years of age.

C. the frontal sinuses become aerated between 6 and 8 months of age.

D. the maxillary, ethmoid, sphenoid, and frontal sinuses do not become aerated until 19 years of age.

E. cellular structure of the mastoid process begins to develop between 12 and 14 years of age.

Question nr **360**

Indicate **false** statement(s) regarding coagulopathies:
1) haemophilia type A is inherited in an autosomal recessive manner;
2) haemophilia type A results from a deficiency of factor VIII;
3) haemophilia type B is inherited in an autosomal dominant manner;
4) in 80% of cases there is a positive family history, while sporadic cases are caused by new mutations;
5) haemophilia types A and B occur mainly in boys; females are carriers, although the disease may also occur in girls;

6) typical manifestations of haemophilia include intra-articular and intra-muscular bleeding;
7) the severe form of haemophilia type B is diagnosed when factor VIII activity is below 1%.
The correct answer is:

A. only 7.

B. 1,3.

C. 1,3,7.

D. 1,2,3,4,5,6.

E. all of the above.

Question nr **361**

According to the 2026 vaccination schedule, the mandatory vaccinations administered during the first year of life include:
(BCG - vaccination against tuberculosis, DTP - vaccination against diphtheria, tetanus, and pertussis, IPV - intramuscular vaccine against poliomyelitis, OPV - oral poliomyelitis vaccine, PCV - vaccination against pneumococcal infection, RV - vaccination against rotavirus infection, HBV - vaccination against hepatitis B, Hib - vaccination against *Haemophilus influenzae* type B, MMR - vaccination against measles, mumps, and rubella)

A. BCG, DTP, IPV, PCV, RV, HBV, Hib, MMR.

B. BCG, DTP, OPV, PCV, RV, HBV, Hib.

C. BCG, DTP, IPV, PCV, RV, HBV, Hib.

D. BCG, DTP, IPV, PCV, RV, HBV.

E. DTP, IPV, RV, HBV, Hib.

Question nr **362**

According to the 2026 vaccination schedule, the recommended (non-mandatory) vaccinations for children include immunization against:
1) influenza;
2) hepatitis A;
3) meningococcal infection;
4) pneumococcal infection;
5) human papillomavirus (HPV),
6) COVID-19;

7) chickenpox (varicella).
The correct answer is:

A. 1, 2, 3, 5, 6, 7.

B. 2, 3, 4, 5, 6, 7.

C. 4, 5, 7.

D. only 6.

E. all of the above.

Question nr **363**

Indicate **false** statement regarding the congenital autoinflammatory syndrome PFAPA in children:

A. the symptoms of PFAPA include: fever, aphthae, pharyngitis, lymphadenitis, and abdominal pain.

B. the gene responsible for the occurrence of PFAPA is *ABC1*.

C. the onset of PFAPA symptoms typically occurs before the age of 5.

D. the occurrence of PFAPA is not limited to a specific continent - it is a worldwide condition.

E. the prognosis is good.

Question nr **364**

Indicate true statement regarding the treatment of osteosarcoma in children:

A. preoperative chemotherapy includes ifosfamide, cisplatin, adriamycin, and high-dose methotrexate with calcium folinate.

B. surgery is performed before the start of chemotherapy to prevent tumour dissemination.

C. limb amputation is the treatment of choice.

D. treatment is carried out in paediatric rheumatology centres as part of the solid tumour programme.

E. prognosis does not depend on the stage of the disease or the response to treatment.

Question nr **365**

Hemorrhagic disease of the newborn can be caused by vitamin K deficiency. This leads to the decreased levels of several coagulation factors, primarily those belonging to the prothrombin complex. Indicate the correct set of factors affected with level decrease:

A. II, VII, IX, X.

B. I, II, X.

C. VIII, IX.

D. XI, XII, XIII.

E. VII, VIII, XI.

Question nr **366**

Indicate true statement regarding NEC (necrotizing enterocolitis):

A. pneumatosis intestinalis visible on abdominal X-ray is a specific feature.

B. meconium aspiration is a specific feature.

C. prematurity is not a risk factor.

D. in stage I, DIC (disseminated intravascular coagulation) occurs.

E. symptoms most commonly appear in 1-3 days of life.