

Topic lists for the final exam in Pediatrics

Faculty of Medicine Semmelweis University Pediatrics Center 2023/24

Differential diagnosis (I.)

1. Differential diagnosis of lymphadenomegaly
2. Abdominal tumours – different diagnosis and treatment
3. Differential diagnosis of childhood anaemias
4. Differential diagnosis of bleeding disorders and immunthrombopenia
5. Differential diagnosis of headaches in children
6. Differential diagnosis of hypertension in children
7. Differential diagnosis of obesity in children
8. Differential diagnosis of polyuria and polydipsia
9. Differential diagnosis of oedema
10. Differential diagnosis of haematuria
11. Differential diagnosis of joint pain
12. Differential diagnosis of fever of unknown origin.
13. Differential diagnosis of the acute abdomen
14. Differential diagnosis of chest pain
15. Differential diagnosis of coughing
16. Differential diagnosis of vomiting
17. Differential diagnosis of diarrhoea
18. Differential diagnosis of hematemesis
19. Differential diagnosis of bloody stool
20. Differential diagnosis of hepatomegaly, splenomegaly.
21. Differential diagnosis of constipation
22. Differential diagnosis of arrhythmias (bradycardia, tachycardia)
23. Differential diagnosis of sore throat
24. Differential diagnosis of chronic abdominal pain

25. Unconsciousness, altered consciousness
26. Failure to thrive in infancy and childhood
27. Mental retardation
28. Neonatal jaundice

General and Emergency Paediatrics (II.)

1. Early and late side effects of oncological treatments
2. Oncological emergencies (tumour lysis syndrome, neutropenic fever, hyperleukocytosis, VCS syndrome)
3. Hydrocephalus, elevated intracranial pressure
4. Alarming signs and necessary examinations in diseases involving the CNS. Lumbar puncture
5. Head injury and its complications
6. Symptoms of primary and secondary immunodeficiency
7. The nutrition of the healthy infant and child, nutrition of preterm neonates, caloric needs, nutrition therapy
8. Definition, causes and investigation of malnutrition
9. Characteristic features for hereditary diseases in newborns
10. When should we consider metabolic disorders?
11. The prevention of infectious diseases, immunisation
12. Gastrointestinal obstruction in neonates (meconium ileus, pylorus stenosis, intestinal atresia)
13. Diaphragmatic hernia, lung development disorders
14. Acute abdomen in children: ileus, volvulus, intussusception, appendicitis, incarcerated hernia, complications (short bowel syndrome)
15. Emergencies of the external and internal genitals
16. Acute pain and antipyretic treatment (pharmacological and non-pharmacological methods)
17. Neonatal life support. APGAR score
18. Paediatric life support (2021 ERC guideline)
19. Recognition and treatment of shock, different shock types
20. Disorders of fluid balance, treatment (severe dehydration, infusion solutions)

21. Electrolyte disorders (hypo- and hypernatraemia, hypo- and hyperkalaemia)
22. Recognition and emergency treatment of acute respiratory failure
23. Emergency treatment of seizures and status epilepticus
24. Foreign body aspiration (assessment, emergency care)
25. Most frequent intoxication in children (signs, decontamination) – CO, corrosive substances, alcohols, hydrocarbons, plants, medicines (one pill can kill)
26. Sudden infant death syndrome
27. Recognition and emergency treatment of sepsis and septic shock
28. Metabolic and respiratory acidosis
29. Metabolic and respiratory alkalosis
30. Symptoms and treatment of hypoglycaemia
31. The management of diabetic ketoacidosis
32. Perinatal terminology, mortality data and concepts related to gestation and birth.
33. Newborn screening, genetical screening, prevention
34. Physiological growth, anthropometry, normal development, normal values for age from newborn to school age
35. Disorders of neonatal cardiovascular adaptation
36. Disorders of neonatal respiratory adaptation and lung diseases.
37. Perinatal asphyxia
38. Viral induced wheeze and asthma
39. Epiglottitis, tracheitis, croup
40. Causes and treatment of acute gastroenteritis
41. Fever in infants and toddlers
42. Symptoms and signs, work up and treatment of allergy induced by inhaled agents or food. Anaphylaxis.
43. Transplantation in childhood

Specific diseases (III.)

1. Leukaemias
2. Lymphomas
3. Brain tumours, retinoblastoma
4. Neuroblastoma, Wilms-tumour, tumours of the liver

5. Malignant bone and soft tissue tumours
6. Brain injury in neonates. Neonatal seizures
7. Infantile cerebral palsy
8. Infectious diseases of the CNS (meningitis, encephalitis, abscess)
9. Neuroimmunological disorders (ADEM, SM, Guillain-Barré)
10. Childhood epilepsy. Febrile seizures.
11. Facial palsy
12. Neuromuscular disorders
13. Eating disorders in childhood
14. Behavioural disorders in childhood (autism spectrum disorder, ADHD, tic-disorder)
15. Disorders of the pituitary gland
16. Disorders of the adrenal gland
17. Growth disorders
18. Disorders of puberty
19. Gonadal disorders
20. Disorders of the thyroid gland
21. Diabetes mellitus, hyperglycaemia
22. Congenital anomalies of the urinary tract
23. Cystic renal disorders
24. Glomerular disorders
25. Haemolytic uremic syndrome
26. Tubular disorders
27. Urinary tract infections
28. Acute renal failure
29. Chronic renal failure
30. Urolithiasis
31. Enuresis nocturna
32. Juvenile idiopathic arthritis
33. SLE, dermatomyositis, HLH
34. Schönlein-Henoch purpura, Kawasaki-disease, MISC and Wegener granulomatosis
35. Osteomyelitis
36. Hirschsprung-disease
37. Atopic dermatitis, hives, diaper dermatitis
38. Pneumonia. Most common pathogens by age

39. Cystic fibrosis
40. Disorders of the esophagus (GOR, GERD, EoE, congenital and secondary stenosis)
41. Acute and chronic pancreatitis
42. Malabsorption (celiac disease, lactose and fructose intolerance)
43. Inflammatory bowel diseases
44. Unconjugated hyperbilirubinaemia
45. Cholestasis and conjugated hyperbilirubinaemia
46. Acute liver failure, acute hepatitis
47. Neonatal infections
48. Fever with a rash in childhood
49. HIV, Tuberculosis
50. Upper respiratory tract infections, Influenza
51. EBV infection and complications
52. Haematological disorders of neonatal adaptation (polycythaemia, haemolytic disease of the newborn)
53. Complications of prematurity (BPD, ROP, NEC)
54. Acyanotic congenital heart diseases
55. Cyanotic congenital heart diseases
56. Inflammatory diseases of the heart, cardiomyopathies
57. Disorders of the ear
58. Mouth and throat disorders
59. Vitamin-D deficiency
60. Non-lethal numerical chromosomal abnormalities
61. Inheritance patterns and diagnosis of monogenic disorders
62. Non-accidental injury in childhood
63. Staphylococcal diseases, toxic shock syndrome
64. Metabolic syndrome