

Glomerulonephritis in children

Simple complement

- | | |
|-------|-------|
| 1. E | 11. B |
| 2. E | 12. D |
| 3. C | 13. C |
| 4. E | 14. A |
| 5. C | 15. C |
| 6. A | 16. E |
| 7. A | 17. D |
| 8. A | 18. A |
| 9. B | 19. B |
| 10. C | 20. D |

Multiple Complement

- | | |
|-------------|-------------|
| 1. A,B,C | 21. B,C,E |
| 2. A,B,E | 22. A,B,C,D |
| 3. A,C,D,E | 23. A,B,C,D |
| 4. A,B,C | 24. A,B,C |
| 5. A,B,C | 25. A,B,C,D |
| 6. A,B,D | 26. A,B,C |
| 7. A,C,D | 27. A,B,C,E |
| 8. A,B,D,E | 28. A,B,D |
| 9. A,B,C | 29. A,B,C,D |
| 10. A,C,E | 30. A,B,C |
| 11. A,B,C | 31. A,B,C,D |
| 12. A,D,E | 32. A,B,C |
| 13. B,C,D,E | 33. B,C,E |
| 14. A,B,E | 34. A,D |
| 15. A,B,D | 35. A,B,C |
| 16. A,B,C,E | 36. A,C,D |
| 17. A,B,C,D | 37. A,B,D,E |
| 18. A,B,E, | 38. A,B,C,E |
| 19. A,B,C,D | 39. A,B,D,E |
| 20. B,C,D | 40. B,C,E |

Glomerulonephritis in children. Simple complement

1. Which of the listed diseases cannot trigger acute glomerulonephritis in children?

- a. **DTP** vaccination
- b. Fabry disease
- c. chickenpox
- d. measles
- e. Hepatitis A

2. Typical onset of acute poststreptococcal glomerulonephritis in children is not determined by:

- a. urinary syndrome
- b. hypertensive syndrome
- c. edematous syndrome
- d. nitrogen retention syndrome
- e. heart failure onset

3. What is the most common etiologic agent of acute poststreptococcal glomerulonephritis in children?

- a. ECHO viruses
- b. staphylococcus
- c. B-hemolytic streptococcus
- d. vaccination
- e. food allergies

4. Which of indicated paraclinical signs attest an unfavorable evolution of glomerulonephritis in children?

- a. leukocyturia
- b. proteinuria
- c. macroscopic haematuria
- d. frequent cylindruria
- e. nonselective proteinuria

5. What injuries produce significant proteinuria?

- a. at the endothelium level
- b. at the level of basal membranes
- c. at the level of subepithelial membranes
- d. at the level of epithelial cells
- e. at the mesangium level

6. The treatment of acute poststreptococcal glomerulonephritis in children *does not* include:

- a. corticosteroids
- b. hypoallergenic diet (salt, potassium and liquid restriction)
- c. antibacterial therapy
- d. antiplatelet drug (*antiaggregant*)
- e. diuretics

7. Pathogenic treatment of idiopathic nephrotic syndrome in children is carried out with:

- a. prednisolone
- b. diuretics
- c. antihypertensives
- d. antibiotics
- e. antiaggregants

8. Through what mechanism do glomerular lesions in chronic glomerulonephritis in children occur most frequently?

- a. immune

- b. metabolic
- c. hemodynamic
- d. toxic
- e. Infectious

9. Through what syndrome is acute glomerulonephritis with minimal glomerular changes in children manifested clinically?

- a. nephritic
- b. nephrotic
- c. urinary isolated
- d. nephrotic with hematuria and high blood pressure
- e. hematuria

10. What morphological variant corresponds to rapidly progressive acute glomerulonephritis?

- a. glomerulonephritis with minimal glomerular changes
- b. mesangioproliferative glomerulonephritis
- c. Crescentic extracapillary glomerulonephritis
- d. proliferative glomerulonephritis, membranoproliferative glomerulonephritis
- e. diffuse sclerosing glomerulonephritis

11. How long are the children with acute glomerulonephritis monitored?

- a. 2 years
- b. 5 years
- c. 10 years
- d. whole life
- e. up to age of 18

12. For acute poststreptococcal glomerulonephritis in children is not characteristic:

- a. hypertension
- b. hematuria
- c. moderate edema
- d. proteinuria > 3.5 g / 24h
- e. proteinuria < 3.5 g / 24h

13. What degree of proteinuria is typical for idiopathic nephrotic syndrome in children?

- a. up to 1 g / l
- b. 1.0-2.0g / l
- c. over 3.5g / l
- d. 2.5-3.0 g / l
- e. 2.0-2.5g / l

14. For idiopathic nephrotic syndrome in children is not typical:

- a. macroscopic haematuria
- b. proteinuria
- c. hypoalbuminemia
- d. generalized edema
- e. hyperlipidemia

15. What cardiovascular complications are not typical for acute glomerulonephritis in children?

- a. pulmonary edema
- b. heart failure
- c. nephrosclerosis
- d. hypertensive encephalopathy
- e. hypertension

16. Important pathophysiological lesions in acute poststreptococcal glomerulonephritis in children are not determined by:

- a. deposition of circulating immune complexes in glomeruli
- b. local activation of complement
- c. the decrease of the glomerular filter
- d. the increase of permeabilization of the glomerular filter
- e. podocyte injury

17. Urinary syndrome of acute poststreptococcal glomerulonephritis in children does not include:

- a. hematuria
- b. proteinuria
- c. cylindruria
- d. epithelial cells
- e. hypoosmolarity

18. What degree of proteinuria is typical for acute glomerulonephritis with nephritic syndrome in children?

- a. 0.5-3 g / l
- b. > 3.0 g / l
- c. is not characteristic
- d. > 3.5 g / l
- e. up to 0.5 g / l

19. Chronic glomerulonephritis in children is not manifested clinically by:

- a. urinary syndrome
- b. febrile syndrome
- c. nephritic syndrome edematous type
- d. nephrotic syndrome edematous type
- e. hypertensive syndrome

20. How long children with chronic glomerulonephritis are monitored?

- a. 5 years
- b. 10 years
- c. 2 years
- d. whole life
- e. up to 18 years

Multiple complement

1. What conditions favor the deposition of circulating immune complexes in kidneys?

- a. increased blood flow
- b. endothelial surface
- c. components of the glomerular filter
- d. glomerular lesions
- e. increased levels of complement fractions

2. List the proinflammatory substances which intervene in the pathogenesis of glomerular lesions:

- a. molecules of cell adhesion
- b. reactive oxygen metabolites
- c. IgE
- d. hyaluronic acid
- e. growth factors

3. List the specific characteristics of edema of renal origin in children:

- a. white

- b. harsh
- c. fluffy
- d. localization in lax rich subcutaneous tissue
- e. massive

4. Complications of glomerulonephritis in children may be the following:

- a. pulmonary edema
- b. tracheobronchitis
- c. pneumonia
- d. bronchial asthma
- e. pulmonary infarction

5. Streptococcal infection can be demonstrated by the following:

- a. ASO titer increased
- b. Increased hyaluronidase
- c. positive throat cultures
- d. urine summary
- e. bioptic renal puncture

6. What are the signs of severity in the prognosis of acute poststreptococcal glomerulonephritis in children?

- a. pulmonary edema
- b. hypertensive encephalopathy
- c. oliguria more than 50ml / kg / day
- d. creatinine clearance under the 60 ml / m²
- e. blood urea under 49mg / dl

7. What are the indications of administration of anticoagulant therapy in glomerulonephritis in children?

- a. decrease of III antithrombin
- b. hypoglobulinemia
- c. hypoalbuminemia 15-20g / l
- d. hyperfibrinogenemia > 5 g / l
- e. hypocalcemia

8. The differential diagnosis of acute poststreptococcal glomerulonephritis in children is performed with:

- a. Alport syndrome
- b. IgA nephropathy
- c. glomerulonephritis with minimal changes in clusters
- d. rapidly progressive glomerulonephritis
- e. focal segmental glomerulonephritis

9. What are the morphological forms of idiopathic nephrotic syndrome in children?

- a. glomerular lesions absent or minimal
- b. diffuse mesangial proliferation
- c. focal glomerulosclerosis
- d. endocapillary glomerulonephritis
- e. membranoproliferative glomerulonephritis

10. Classic acute glomerulonephritis in children can develop through the following syndromes:

- a. edematous syndrome
- b. algic syndrome
- c. urinary syndrome

- d. fever syndrome
- e. hypertensive syndrome

11. What is characteristic for impure nephrotic syndrome in children?

- a. non-selective proteinuria
- b. persistent hematuria
- c. unfavorable prognosis
- d. selective proteinuria
- e. normal serum complement

12. What is characteristic for pure nephrotic syndrome in children?

- a. minimal or absent glomerular lesions
- b. persistent microscopic haematuria
- c. persistent macroscopic haematuria
- d. selective proteinuria
- e. good response to corticotherapy

13. The onset of atypical acute glomerulonephritis in children includes:

- a. urinary syndrome
- b. heart failure
- c. acute renal failure
- d. rough hypertension
- e. glomerulonephritis with minimal urinary syndrome

14. Urinary signs specific for urinary nephrotic syndrome in children are:

- a. increase potassium elimination
- b. decrease of sodium elimination
- c. absence of hyaline cylinders
- d. absence of granular cylinders
- e. lipiduria

15. Dyselectrolytemia in nephrotic syndrome in children is characterized by:

- a. hyponatremia
- b. hypokalemia
- c. hypophosphatemia
- d. with normal values of potassium level
- e. hypernatremia

16. What are the complications of corticosteroid therapy in nephrotic syndrome in children?

- a. physical retardation
- b. psychosis
- c. sleep disorder
- d. hypotension
- e. secondary infections

17. What are the indications for renal biopsy in children?

- a. proteinuria and hematuria of unknown etiology
- b. hypertension of unknown aetiology
- c. Cortico-resistant nephrotic syndrome
- d. suspected amyloidosis
- e. renal tuberculosis

18. Treatment of acute glomerulonephritis with nephritic syndrome in children includes:

- a. antibiotics
- b. diet by the reduction of water, salt, protein
- c. corticotherapy
- d. cytostatics
- e. diuretics

19. Compulsory investigations in acute glomerulonephritis in children include:

- a. urea, creatinine, B-lipoproteids, general protein
- b. hemogram
- c. urine summary
- d. renal ultrasound
- e. renal biopsy

20. Edema in nephrotic syndrome in children are determined by:

- a. hypertension
- b. reduction of colloid-osmotic pressure
- c. increase of glomerular basement membrane permeability
- d. increase of tubular reabsorption of sodium
- e. hypervolaemia

21. Biochemical changes in idiopathic nephrotic syndrome in children include:

- a. low serum complement
- b. hypoalbuminemia
- c. hyponatraemia
- d. ASLO increased
- e. high cholesterol

22. What are the diagnostic criteria for glomerulonephritis of primary immunocomplex origin in children?

- a. increased level of circulating immune complexes in serum
- b. low levels of serum complement
- c. diffuse damage of both kidneys according to renal ultrasound
- d. storage of immunoglobulins on the glomerular basement membrane
- e. renal ultrasound data of unilateral renal damage

23. The prognosis in secondary forms of nephrotic syndrome in children depends on:

- a. clinical and histological form
- b. etiology
- c. complications of the disease
- d. complications as the result of the treatment
- e. age of the patient

24. The efficacy of treatment steroid-resistant nephrotic syndrome in children depends on:

- a. morphological variant
- b. Expressiveness of tubulo-interstitial changes
- c. fibroblastic component
- d. clinical picture
- e. hematuria

25. Pathogenic and symptomatic treatment of chronic glomerulonephritis in children include:

- a. glucocorticoids
- b. cytostatics
- c. diuretics
- d. antihypertensive treatment
- e. antihypotension treatment

26. Premature death during the early development of chronic glomerulonephritis in children can occur through:

- a. acute renal failure
- b. heart failure
- c. pulmonary edema

- d. hepatic
- e. cerebral edema

27. What does the symptomatic therapy in acute glomerulonephritis in children include?

- a. macrolides
- b. semisynthetic penicillins with clavulonic acid
- c. diuretics
- d. cytostatics
- e. antihypertensives

28. What are the criteria for the cure of glomerulonephritis in children?

- a. resumption of diuresis
- b. disappearance of edema
- c. absence of histopathological changes after 6 months
- d. absence of hematuria
- e. absence of histopathological changes after 1 year

29. Secondary nephrotic syndrome can occur in the following diseases:

- a. Alport syndrome
- b. Down syndrome
- c. Orbeli syndrome
- d. hypoplastic renal dysplasia
- e. mucoviscidose

30. What does the clinical picture of membranoproliferative glomerulonephritis in children include?

- a. nephrotic syndrome
- b. high blood pressure
- c. hematuria
- d. hypotension
- e. nephritic syndrome

31. What are the complications of diuretic therapy in children?

- a. electrolytic disorders
- b. ototoxicity
- c. metabolic alkalosis
- d. calcification in kidneys
- e. increase in serum potassium

32. What are morphological variants of focal segmental glomerulonephritis in children?

- a. canalicular
- b. colaptoid
- c. cellular
- d. atypical
- e. proliferative

33. What are the clinical manifestations of membranous glomerulonephritis in children?

- a. nephritic syndrome
- b. nephrotic syndrome
- c. microhematuria
- d. hypotension
- e. macrohematuria

34. Treatment of nephrotic syndrome debut with minimal glomerular changes in children includes:

- a. prednisolone dose 2mg / kg / 24 h for 6 weeks according to the scheme
- b. prednisolone pulse therapy

- c. cytostatics
- d. symptomatic therapy
- e. plasmapheresis

35. What syndromes are characteristic for chronic glomerulonephritis in children?

- a. urinary syndrome
- b. hypertensive syndrome
- c. edematous syndrome (nephritic or nephrotic type)
- d. nitrogen retention syndrome
- e. hepato-renal syndrome

36. The diet in the treatment of nephrotic syndrome in children is characterized by:

- a. protein intake 2-3g / kg / day
- b. low-protein diet
- c. hyposodic diet
- d. liquid reduced just in the presence of massive edema
- e. high-fat diet

37. Idiopathic nephritic syndrome criteria in children include:

- a. generalized edema
- b. proteinuria > 3.5g / 24h
- c. proteinuria up to 1 g / 24h
- d. hypoalbuminemia
- e. hypercholesterolemia and hyperlipidemia

38. What are the contraindications to renal biopsy in children?

- a. renal artery aneurysm
- b. solitary kidney
- c. terminal renal failure
- d. hypertension
- e. renal tuberculosis

39. Immune glomerular lesions are triggered by deposition in glomeruli:

- a. circulating immune complexes
- b. „in situ” immune complex
- c. platelets
- d. anti- glomerular basement membrane antibody
- e. cellular immune response

40. What are the complications related to the development of nephrotic syndrome in children?

- a. hypovolemic shock
- b. thrombotic phenomena
- c. urinary tract infections
- d. chronic renal failure
- e. massive hydrothorax

Hereditary tubulopathy in children

Simple complement

- | | | | |
|-----|---|-----|---|
| 1. | D | 11. | E |
| 2. | B | 12. | B |
| 3. | A | 13. | E |
| 4. | A | 14. | A |
| 5. | A | 15. | B |
| 6. | E | 16. | D |
| 7. | E | 17. | E |
| 8. | A | 18. | D |
| 9. | A | 19. | B |
| 10. | E | 20. | C |

Multiple complement

- | | | | |
|-----|---------|-----|---------|
| 1. | B,C,E | 20. | A,B,D |
| 2. | A,C,D | 21. | A,B,D,E |
| 3. | A,B,C,D | 22. | A,B,C |
| 4. | C,D | 23. | A,B,C,D |
| 5. | A,C,D | 24. | A,B,C,D |
| 6. | A,B,C | 25. | A,B,C,E |
| 7. | B,D,E | 26. | A,B,C,D |
| 8. | A,B | 27. | A,B,E |
| 9. | A,C,D,E | 28. | A,B,C,D |
| 10. | A,B,D | 29. | B,E,D |
| 11. | A,B,C,D | 30. | A,B,C,E |
| 12. | A,C,D | 31. | A,B,C |
| 13. | B,C,E | 32. | A,C,D |
| 14. | A,B,C | 33. | A,B,D |
| 15. | B,C,D,E | 34. | A,B,C,D |
| 16. | A,B,C,D | 35. | A,B,C,D |
| 17. | A,B,C,D | 36. | A,B |
| 18. | A,B,C,D | 37. | A,B,C,E |
| 19. | A,B,C,D | 38. | A,B,C,D |
| | | 39. | D,E |
| | | 40. | A,B |

Hereditary tubulopathy

Simple complement

1. List the primary hereditary tubulopathy that do not have location at the level of proximal renal tubules:

- a. diabetes glucosamine
- b. renal phosphaturic diabetes
- c. glycinuria
- d. galactosemia
- e. cystinuria

2. For phosphaturic diabetes in children is characteristic:

- a. hypophosphatemia
- b. hyper fosfaturia
- c. glucosuria
- d. hypocitraturia
- e. hyperaminoaciduria

3. Essential biochemical modification of phosphaturic diabetes in children is:

- a. hypophosphatemia
- b. hyperphosphatemia
- c. hypercalcemia
- d. hyperkalemia
- e. decrease of the activity of alkaline phosphatase

4. For Toni-Debre- Fanconi syndrome is not characteristic:

- a. hypercalciuria
- b. glycosuria
- c. hyperaminoaciduria
- d. hyperphosphatemia
- e. hyperchloremic metabolic acidosis

5. Toni-Debre- Fanconi syndrome in children is not associated with:

- a. acute pneumonia
- b. Wilson-Konovalov disease
- c. galactosemia
- d. cystinosis
- e. phenylketonuria

6. Which calculi are not found in renal lithiasis in children?

- a. uric calculi
- b. oxalic calculi
- c. cystine calculi
- d. phosphate calculi
- e. bilirubin calculi

7. For renal saline diabetes in children is not characteristic:

- a. polyuria
- b. hypotonia
- c. staturo retardation
- d. polydipsia
- e. low diuresis

8. In renal phosphaturic diabetes does not occur the following modification:

- a. glucosuria
- b. rachitic skeletal changes

- c. hypophosphatemia
- d. hyperphosphaturia
- e. serum calcium within normal range

9. Renal osteopathy is not found in:

- a. renal glycosuria
- b. Toni-Debre- Fanconi syndrome
- c. vitamin D dependent rickets
- d. distal tubular acidosis
- e. renal phosphaturic diabetes

10. Polyuria is not present in the following tubulopathy in children:

- a. renal glucosuria
- b. renal diabetes insipidus
- c. renal saline diabetes
- d. cystinosis
- e. renal phosphaturic diabetes

11. What clinical manifestation is not characteristic for renal phosphaturic diabetes?

- a. clinical manifestations obviously start up to 2 years
- b. bone deformation
- c. phosphaturia
- d. stature retardation
- e. deafness

12. Tubulopathies that do not present nephrolithiasis syndrome in children are:

- a. cystinuria
- b. renal glucosuria
- c. hyperoxaluria
- d. hyperuraturia
- e. glicinuria

13. The elective treatment for renal glycosuria in children includes:

- a. insulin
- b. diuretic
- c. oral antidiabetic drug
- d. glucose perfusion
- e. proper diet

14. Which of the following symptoms is characteristic for renal diabetes insipidus?

- a. thirst and polyuria
- b. sanguinolent stools
- c. increased density of urine
- d. febrile syndrome
- e. decrease of blood glucose

15. What is the leading cause of death in children suffering from renal diabetes insipidus?

- a. toxic infectious shock
- b. dehydration
- c. hypoglycemic coma
- d. convulsions
- e. cardiac arrest

16. Which of the listed symptoms is not characteristic for renal saline diabetes in children?

- a. polyuria
- b. adynamia

- c. hypotension
- d. hypertension
- e. hypotonia

17. Differential diagnosis of renal saline diabetes in children is not performed with:

- a. secondary pseudohypoaldosteronism
- b. diabetes mellitus
- c. renal glycosuria
- d. hypoaldosteronism
- e. renal phosphaturic diabetes

18. When does commonly occur the onset of renal phosphaturic diabetes in children?

- a. immediately after birth
- b. at the age of 7-10 years
- c. at puberty
- d. with the onset of gait (independent walking)
- e. after the age of 15 years

19. The treatment of renal phosphaturic diabetes is performed with:

- a. group B vitamins
- b. phosphorus preparations with consecutive introduction of vitamin D
- c. corticosteroids
- d. antibiotics
- e. chemotherapeutics

20. Which disease resembles the onset of vitamin D-dependent rickets?

- a. diabetes mellitus
- b. acute pyelonephritis
- c. deficiency rickets
- d. acute poststreptococcal glomerulonephritis
- e. Alport syndrome

Multiple compliment

1. In which hereditary tubulopathies polyuria can be the single manifestation?

- a. renal phosphaturic diabetes
- b. renal saline diabetes
- c. renal diabetes insipidus
- d. renal tubular acidosis
- e. renal glucosuria

2. Renal osteopathy as main manifestation is found in the following tubulopathies in children:

- a. diabetes phosphaturia
- b. cystinuria
- c. Toni-Debre- Fanconi syndrome
- d. vitamin D dependent rickets
- e. vitamin D independent rickets

3. Differential diagnosis of renal saline diabetes is carried out with the following diseases:

- a. diabetes mellitus
- b. Toni Debre-Fanconi syndrome
- c. renal glucosuria
- d. hypoaldosteronism
- e. Alport syndrome

4. The diagnosis of renal glycosuria is based on the following criteria:

- a. abnormal glycemc curve
- b. presence of disorders of the renal function

- c. presence of glucose in all urine portions
- d. normal blood glucose levels
- e. absence of glucose in the urine

5. Renal diabetes insipidus in older children is manifested by:

- a. thirst
- b. urinary urgency
- c. enuresis
- d. delay in physical development
- e. fever

6. What factors determine the genesis of primary hereditary tubulopathies in children?

- a. structural changes of membrane transport protein of renal tubules
- b. hereditary enzymopathies
- c. decrease sensitivity to the hormone action of the tubular epithelial receptor
- d. increase sensitivity to the hormone action of the tubular epithelial receptor
- e. infections

7. Biological changes that occur in renal diabetes insipidus in children include:

- a. hyponatraemia
- b. hypernatremia
- c. hypochloremia
- d. hyperchloraemia
- e. increase of plasmatic oncotic pressure

8. Under which criteria the classification of tubulopathies in children is elaborated?

- a. by the location of the defect in the renal tubular system
- b. by the main syndromes of the disease
- c. by the nature of the metabolic disorders
- d. by the mode of the hereditary transmission of the disease
- e. by the age of the child who suffers from the disease

9. What changes occur in the laboratory diagnosis of renal saline diabetes?

- a. metabolic acidosis
- b. hypokalaemia
- c. hyperkalemia
- d. hyponatraemia
- e. hipernatraemia

10. The main developing mechanisms of renal phosphaturic diabetes are:

- a. primary transport defect of phosphate in small intestine
- b. hereditary disorders of vitamin D
- c. metabolic disorders of glyoxal acid
- d. structural anomaly of the protein which transports the phosphates
- e. insulin deficiency

11. The most common symptoms of renal phosphaturic diabetes in children are:

- a. coxa varum
- b. unaffected intellectual development
- c. statural stagnation
- d. abnormal muscle tone
- e. polyuria

12. Differential diagnosis of renal phosphaturic diabetes in children is performed through the following diseases:

- a. tubular acidosis
- b. chronic glomerulonephritis
- c. chronic kidney disease
- d. Toni-Debre- Fanconi syndrome
- e. acute renal failure

13. Morphological Toni-Debre- Fanconi syndrome in children is characterized by:

- a. normal proximal convoluted tube
- b. glomerular atrophy
- c. shortened proximal convoluted tube
- d. hypoplasia of the juxtaglomerular complex
- e. hypertrophy of the the juxtaglomerular complex

14. Clinical manifestations specific for Toni-Debre-Fanconi syndrome in children are:

- a. polyuria
- b. Unmotivated hyperthermia
- c. retardation in psychomotor development
- d. muscular hypertonus
- e. absence of skeletal changes

15. What are the biological changes specific for Toni-Debre- Fanconi syndrome?

- a. cystinuria
- b. hyperchloraemic metabolic acidosis
- c. glucosuria
- d. phosphaturia
- e. hyperaminoaciduria

16. 2 years old child is hospitalized in a serious condition with the diagnoses of renal phosphaturic diabetes. The correct treatment includes:

- a. phosphorus preparations
- b. administration of vitamin D
- c. administration of vitamin D dose increases under the control of Sulckowitsch sample
- d. somatotropic hormone
- e. prednisolone

17. 5 years old child is hospitalized in a serious condition with suspected Toni-Debre-Fanconi syndrome. What investigations are needed to confirm the diagnosis?

- a. assessment of amino acids in the urine
- b. assessment of glucose in the urine
- c. assessment of phosphates in the urine
- d. assessment of bicarbonates in the urine
- e. assessment of Ca in the blood

18. The treatment of Toni-Debre-Fanconi syndrome includes:

- a. alkaline solutions to combat the acidosis
- b. calcitriol
- c. calcium preparations for the elimination of hypocalcemia
- d. high doses of vitamin D
- e. antibacterial therapy

19. Biological changes in vitamin D dependent rickets in children include:

- a. hypocalcemia
- b. normophosphatemia
- c. hypophosphatemia
- d. high activity of alkaline phosphatase
- e. low activity of alkaline phosphatase

20. Distal tubular acidosis in 2 years child is manifested by:

- a. nephrolithiasis
- b. pyelonephritis
- c. glomerulonephritis
- d. nephrocalcinosis
- e. normal physical development

21. Biological changes related to distal tubular acidosis in the children include:

- a. hypocalcemia

- b. hyponatraemia
- c. hipokaliurie
- d. hypophosphatemia
- e. hypocitraturia

22. Distal tubular acidosis treatment in children includes:

- a. dietotherapy
- b. citrus solutions
- c. correction of metabolic acidosis
- d. antibiotic therapy
- e. correction of hyperkalaemia

23. What are the clinical manifestations of proximal tubular acidosis in children?

- a. rachitic skeletal changes
- b. vomiting with episodes of dehydration
- c. nephrocalcinosis
- d. **statur retardation**
- e. edema

24. The diagnosis of cystinuria in children is based on the following factors:

- a. symptomatology of urinary pathway obstruction through calculi
- b. evidence of increased cystine excretion in the urine
- c. absence of cystine crystals on the cornea examination
- d. presence of cystine crystals in bone marrow punch
- e. absence of cystine crystals in urine sediment

25. The symptomatology specific for hyperoxaluria is characterized by:

- a. abdominal pain
- b. micturition disorders
- c. dysuria
- d. polydipsia
- e. recurrent pain in joints

26. Biological changes specific for hyperoxaluria are:

- a. leucocyturia
- b. moderate proteinuria
- c. increased excretion of oxalate in urine
- d. hematuria
- e. low oxalate excretion in urine

27. Treatment of renal diabetes insipidus includes:

- a. diet without water restriction
- b. reducing the intake of sodium
- c. steroids
- d. antibiotic therapy
- e. hypothiazid

28. Treatment of hyperoxaluria in children includes:

- a. dietetic regimen
- b. mg preparation
- c. pyridoxine
- d. orthophosphate
- e. nitrofurantoin

29. What renal inflammatory process is characteristic for morphological cystinuria?

- a. acute glomerulonephritis
- b. interstitial nephritis
- c. chronic glomerulonephritis
- d. urolithiasis
- e. pyelonephritis

30. What are the clinical manifestations of the Albright-Buttler syndrome?

- a. anorexia
- b. polyuria
- c. respiratory disorders
- d. edema
- e. vomits

31. What are the causes which determine the apparition of primary proximal forms of renal tubular acidosis in children?

- a. kidney transplantation
- b. hyperparathyroidism
- c. pyelonephritis
- d. insufficiency of vitamin D
- e. Alport syndrome

32. What are the causes which determine the apparition of secondary forms of renal tubular acidosis in children?

- a. celiac disease
- b. overdose of vitamin D
- c. galactosemia
- d. Lowe syndrome
- e. chronic infections

33. For correction of mitochondrial dysfunction in Toni-Debre- Fanconi syndrome is indicated:

- a. vitamin A
- b. vitamin B
- c. vitamin K
- d. coenzyme Q10
- e. vitamin D

34. What changes are characteristic for renal glycosuria?

- a. is not influenced by diet
- b. normal glycemc curve
- c. glucose is present in all portions of urine
- d. normal blood glucose levels
- e. glucose is not present in all portions of the urine

35. Proximal renal tubular acidosis in children is characterized by:

- a. decreased reabsorption of carbohydrates
- b. hyperchloraemic acidosis
- c. decrease of urine pH
- d. decrease of carbohydrates in blood
- e. decrease of carbohydrates in urine

36. List the complications of distal tubular acidosis in children:

- a. decrease in glomerular filtration function
- b. chronic renal failure
- c. osteomalacia
- d. interstitial nephritis
- e. nephrotic syndrome

37. List the clinical manifestations specific for distal tubular acidosis:

- a. polyuria
- b. rachitic bone changes
- c. nephrolithiasis
- d. normal physical development
- e. polydipsia

38. What does the complex treatment of cistinuria in children include?

- a. increased fluid intake

- b. limiting sulfur containing products
- c. hypothiazid
- d. pyridoxine
- e. streroids

39. What are the clinical manifestations of renal glycosuria in children?

- a. polyuria
- b. polyphagia
- c. thirst
- d. skeleton deformity
- e. vomiting accompanied by dehydration

40. What determines the length of treatment with vitamin D for Toni-Debre-Fanconi syndrome in children?

- a. concentration of Ca in the serum
- b. concentration of P in serum
- v. concentration of K in serum
- d. concentration of Na in serum
- e. concentration of Cl in serum

Pyelonephritis in children
Simple Complement

- | | |
|------|------|
| 1. C | 11.E |
| 2. A | 12.D |
| 3. C | 13.E |
| 4. C | 14.D |
| 5. C | 15.A |
| 6. B | 16.A |
| 7. B | 17.E |
| 8. C | 18.C |
| 9. A | 19.C |
| 10.B | 20.E |

Multiple complement

- | | |
|------------|---------------|
| 1. A,B,C,D | 24.A,B,D |
| 2. A,C,D,E | 25.A,B |
| 3. A,B,C | 26.A,B,D,E |
| 4. A,D,E | 27.A,B |
| 5. B,C,E | 28.A,B,C,D |
| 6. A,B,C,D | 29.A,B,C |
| 7. A,C,D | 30.A,B |
| 8. A,C | 31.A,B,C |
| 9. A,B,D | 32.A,B,C |
| 10.A,B,C | 33.A,B,C |
| 11.A,B,E | 34.A,B,C,D |
| 12.B,D,E | 35.B,C,D |
| 13.B,C,E | 36.A,B,C |
| 14.A,B,C,E | 37.A, B, C, D |
| 15.B,D | 38.A, B, C,D |
| 16.A,B,C | 39.A, B, C, D |
| 17.A,B,E | 40.A, B, C |
| 18.C,D,E | |
| 19.A,B,C,E | |
| 20.A,B,C,E | |
| 21.A,B,C,D | |
| 22.A,B,C | |
| 23.A,D,E | |

Pyelonephritis in children. Simple Complement.

1. What is the main etiologic factor which favors renal damage in children at first years of life?

- a. e.coli
- b. proteus
- c. staphylococcus
- d. mycoplasma
- e. L-form bacteria

2. What does the evolution of latent chronic pyelonephritis in children characterize?

- a. recurrent leucocyturia
- b. prolonged febrile syndrome
- c. pyuria
- d. local purulent reactions
- e. toxic-infectious shock

3. The clinical picture of pyelonephritis in children does not include:

- a. chills
- b. lumbar pain
- c. urinary incontinence
- d. fever
- e. pyuria

4. The duration of attack treatment in the first **spurt of pyelonephritis in children is:**

- a. 4-7 days
- b. 5-10 days
- c. 14 to 21 days
- d. 10-15 days
- e. 20-30 days

5. The main clinical syndrome of pyelonephritis in infants is:

- a. asthenic syndrome
- b. dysuria syndrome
- c. dyspeptic syndrome
- d. hypertensive syndrome
- e. neurovegetative syndrome

6. What is the screening method for the diagnosis of pyelonephritis in children?

- a. cystography and intravenous urography
- b. kidneys and bladder ultrasound
- c. kidneys scintigraphy and intravenous urography
- d. computed tomography
- e. cystourethroscopy

7. The cause of urinary passage disorder in children is determined by:

- a. vesico-renal reflux
- b. cystitis
- c. nephroptosis
- d. neurogenic bladder
- e. nephrolithiasis

8. A 5 years girl, previously healthy, is diagnosed with acute pyelonephritis. What laboratory index is not essential for diagnosis at the moment?

- a. urea, creatinine
- b. urine summary
- c. serum cholesterol, uric acid
- d. uroculture
- e. Niciporenco sample

9. Select the correct statement regarding acute pyelonephritis in children:

- a. inflammation of renal interstitial tissue
- b. inflammation of the bladder
- c. glomerular inflammation
- d. tubular inflammation
- e. ureters inflammation

10. What investigation is mandatory in enuresis in children?

- a. renal biopsy
- b. cystography
- c. computerized tomography of the kidneys
- d. renal scintigraphy
- e. intravenous urography

11. What is the level of significant bacteriuria at pyelonephritis in children?

- a. 50000 colony in 1ml. urine
- b. 10000 colonies in 1 ml. urine
- c. 40,000 colonies in 1 ml. urine
- d. the absence of microbial growth
- e. 100,000 colonies in 1 ml. urine

12. Specify the character of leukocytosis in bacterial pyelonephritis in children:

- a. lymphocytes
- b. monocytes
- c. eosinophils
- d. neutrophils
- e. no signification

13. Duration of dispensarisation of children who have suffered from acute pyelonephritis is:

- a. 1 year
- b. 2 years
- c. 3 years
- d. 4 years
- e. 5 years

14. At what age the monitoring of the patients with secondary chronic pyelonephritis stops?

- a. after 10 years
- b. after 15 years
- c. after 18 years
- d. not removed from the record
- e. after age 17

15. The frequency of the check-ups of children who suffered from pyelonephritis performed by the neurologist is:

- a. once every three months
- b. once every five months
- c. no surveillance
- d. every 1 year
- e. every 2 weeks

16. What is the method of investigation which may favor the penetration of kidney infection in children?

- a. catheterization of the bladder
- b. pleural puncture
- c. liver biopsy
- d. valve exam
- e. catheterization of peripheral vein

17. Renal ultrasound of pyelonephritis in children does not determine:

- a. kidneys increased in size

- b. hyperechoic parenchyma
- c. edematous parenchyma
- d. pyelocaliceal system expansion
- e. residual urine after urination

18. What is the normal version of the urinary pH in children?

- a. weak alkaline
- b. strong alkaline
- v. weak acid
- d. strong acid
- e. neutral

19. What index of blood count changes at acute pyelonephritis in children?

- a. hemoglobin
- b. eosinophils
- c. ESR (erythrocyte sedimentation rate)
- d. color index
- e. glucose

20. What are the contraindications for performing the intravenous urography in children?

- a. leucocyturia
- b. renal colic
- c. abdominal trauma
- d. changes in renal ultrasonography
- e. anuria

CM.

1. What are the causative agents of pyelonephritis in children?

- a. e.coli
- b. chlamydiae
- c. candida albicans
- d. mycoplasma infection with M. hominis
- e. mycoplasma infection with M. tuberculosis

2. What are the factors of local protection reno-urinary apparatus in children?

- a. presence of IgA in urine
- b. increased pH
- c. low pH
- d. fluctuations in osmolarity
- e. Tamm-Horsfall uoprotein

3. The main routes of penetration of kidney infection in children are:

- a. urogenital
- b. haematogenous
- c. lymphogenous
- d. airborne
- e. endogenous

4. The clinical signs characteristic of acute pyelonephritis in children, except:

- a. fever > 38C, chills
- b. sensible urination
- c. pollakiuria
- d. signs of intoxication
- e. lumbar pain

5. What are the indications for performing renal scintigraphy in children?

- a. recurrent urinary tract infections
- b. urinary tract infections atypical for the age under 3 years
- c. within 4-6 months after the acute episode of a urinary tract infection

- d. renal agenesis
- e. acute episode of urinary tract infection

6. The clinical picture of pyelonephritis in children includes the following complex of symptoms:

- a. fever
- b. chills
- c. abdominal pain
- d. lumbar pain
- e. dysuria

7. Under the mask of which diseases acute pyelonephritis in children may develop?

- a. acute appendicitis
- b. acute pancreatitis
- c. acute viral infection
- d. intestinal infection
- e. acute cholecystitis

8. What are the mandatory laboratory tests in the diagnosis of acute pyelonephritis in children?

- a. full blood count
- b. enzyme diagnostics
- c. general analysis of urine
- d. investigation of urine to opportunistic infections
- e. investigation of immune status

9. What are the additional laboratory investigations in the diagnosis of acute pyelonephritis in children?

- a. Zimničkii sample
- b. blood test to identify R-protein
- c. morphology of urinary sediment
- d. LYSO chemical test
- e. general analysis of urine

10. What instrumental investigations are required in the diagnosis of acute pyelonephritis in children?

- a. blood pressure monitoring
- b. renal ultrasonography
- c. intravenous urography
- d. cystometry
- e. micturition cystography

11. What are the laboratory changes characteristic for pyelonephritis in children?

- a. inflammatory reaction of blood
- b. modification of urinary sediment
- c. lowering C-reactive protein in the blood
- d. hypogammaglobulinemia
- e. decrease in relative density of urine

12. Modification of urinary sediment in acute pyelonephritis in children is characterized by:

- a. bacteriuria <50,000 colonies / ml
- b. bacteriuria > 100,000 colonies / ml
- c. proteinuria > 1gr / l
- d. proteinuria <1gr / l
- e. leucocyturia with neutrophil character > 50%

13. Disturbance of functional state of kidneys of tubulo- interstitial type occurs in the presence of:

- a. increase in osmolarity
- b. decrease in osmolarity
- c. decrease of the relative density
- d. increase of the relative density
- e. low indices of **acidoamoniogenesis**

14. List the complications of pyelonephritis in children:

- a. renal carbuncle
- b. apostomatic nephritis
- c. nephrolithiasis
- d. Alport syndrome
- e. papillary necrosis

15. What are the criteria for hospitalization of children with acute pyelonephritis?

- a. mild form of acute pyelonephritis
- b. acute pyelonephritis associated with other diseases under exacerbations
- c. acute pyelonephritis in children of 10-15 years
- d. acute pyelonephritis in children in the first months of life
- e. mild forms of pyelonephritis accompanied by fever

16. Which of the listed methods confirm the diagnosis of pyelonephritis in children?

- a. intravenous urography
- b. renal scintigraphy
- c. renal ultrasonography
- d. chest radiography
- e. cystoscopy

17. Risk factors related to the development of pyelonephritis in children are:

- a. chronic foci of infection
- b. frequent intercurrent infections
- c. parental anemia
- d. acute gastroduodenitis
- e. vulvovaginitis and cystitis

18. What clinical manifestations are characteristic to pyelonephritis in infants?

- a. dysuria syndrome
- b. suprapubic pain
- c. prolonged febrile syndrome
- d. dyspeptic syndrome
- e. generalized toxic-infectious syndrome

19. What are the local risk factors in the development of pyelonephritis in children?

- a. hydronephrosis
- b. urolithiasis
- c. local tumor
- d. Alport syndrome
- e. renal polycystosis

20. With what diseases the differential diagnosis in acute pyelonephritis in children is performed?

- a. glomerulonephritis
- b. renal tuberculosis
- c. cystitis
- d. acute bronchitis
- e. acute appendicitis

21. General curative measures in uncomplicated acute pyelonephritis in children include:

- a. bed-regimen for 1-2 days after fever normalization
- b. increased fluid intake
- c. limiting the excess of protein products, extractive substances
- d. compliance of the regimen of regular micturition
- e. cotrimoxazole

22. Indicate the correct statements regarding the treatment of intricate acute pyelonephritis in children:

- a. antibacterial therapy
- b. intravenous infusions

- c. nitrofurans
- d. immunosuppressives
- e. disaggregants

23. What are the typical clinical manifestations of pyelonephritis in children beyond the age of 3 years?

- a. abdominal pain, lumbar
- b. dysuria
- c. diarrhea
- d. generalized infectious-toxic syndrome
- e. chills

24. What factors rise the degree of expression of symptoms in acute pyelonephritis children?

- a. concomitant pathologies
- b. age of the child
- c. degree of physical development of the child
- d. hereditary predisposition factors
- e. body weight of the child

25. What characterizes the obstructive pyelonephritis in children?

- a. constant temperature rise
- b. occurrence of acute pain in the affected lumbar area
- c. absence of fever
- d. increased pain in the lumbar area on micturition
- e. lack of pain

26. Antenatal factors predisposing to the development of pyelonephritis in children are:

- a. nephropathy of the pregnancy
- b. chronic pyelonephritis
- c. acute allergic dermatitis
- d. common intercurrent infections
- e. chronic foci of infection in pregnant women

27. What changes are present at full blood count in acute pyelonephritis in children?

- a. increased ESR
- b. leukocytosis
- c. eosinophilia
- d. rise of hemoglobin
- e. reduction of platelet count

28. What are the indications for micturition cystography in children?

- a. enuresis beyond the age of 3-5 years
- b. diurnal incontinence of urine
- c. recurrent urinary infection
- d. non functioning kidney
- e. unilateral lumbar pain

29. What are the indications for performing radiological research methods of urinary pathways in children?

- a. renal colic
- b. pyelonephritis at any age
- c. abdominal trauma
- d. acute appendicitis
- e. hypersensitivity to iodine preparations

30. The duration of administration of chemotherapeutic agents in children is:

- a. 3-6 months in recurrent unobtrusive urinary tract infections
- b. 6-12 months or until surgery
- c. 1 month ago

- d. 2 weeks
- e. 2 months

31. What are the characteristics of urinary syndrome in acute pyelonephritis in children?

- a. leucocyturia
- b. bacteriuria > 100,000 colonies / ml. urine
- c. density loss of urine
- d. proteinuria > 3.0 g / l
- e. erythrocyturia

32. What are the most common chemotherapy drugs used against urinary tract infections in children?

- a. cotrimoxazole
- b. nitrofurantoin
- c. nalidixic acid
- d. erythromycin
- e. ciprofloxacin

33. What remedies are recommended for oral therapy of urinary tract infection in children?

- a. nalidixic acid
- b. cefuroxime
- c. cefixime
- d. bisseptol
- e. gentamicin

34. Hospitalization of children with urinary tract infection is performed under the following conditions:

- a. age < 6 months
- b. do not accept liquid orally
- c. toxicity
- d. urinary obstruction
- e. moderate state

35. What are the criteria of effectiveness of antibacterial therapy in children with acute pyelonephritis?

- a. clinical improvement within 5-7 days of treatment initiation
- b. diminution or disappearance of white blood cells at 2-3 days of treatment initiation
- c. urine becomes sterile in 24-48 hours
- d. clinical improvement within 24-48 hours after treatment initiation
- e. worsening of clinical picture after 24 hours of treatment initiation

36. What are the purposes of the therapy of urinary tract infection in children?

- a. urine sterilization
- b. prevent dissemination of infection
- c. reducing the probability of kidney damage
- d. identification of the pathogenic agent
- e. treatment of intercurrent infections

37. The main causes of urinary tract infection in children are:

- a. urinary tract tumors
- b. immaturity and disturbance of renal tissue differentiation
- c. vesico-renal reflux
- d. nephroptosis, renal dystopia, increased kidneys mobility
- e. phosphatic diabetes

38. What remedies are used for the prevention of urinary tract infections in children?

- a. nalidixic acid
- b. co- trimaxozol
- c. methenamine

- d. nitrofurantoin
- e. ampicillin

39. The effectiveness of antibiotic therapy of pyelonephritis in children is based on:

- a. activity of bacterial inflammation
- b. character of bacterial microflora
- c. Urine pH
- d. maintenance of diuresis and other renal function
- e. age of the child

40. What are the contraindications to intravenous urography in children?

- a. shock and syncope
- b. decompensated heart defects
- c. oliguria
- d. chronic pyelonephritis
- e. renal colic