

## **Semiology of digestive system in children**

### **Single choice tests**

- 1) SC Select which of the following affirmation describing the oral cavity of the newborn and the infant is not correct?
- a) The oral cavity is small
  - b) Lip and cheek muscles are well developed
  - c) Oral mucosa is relatively dry
  - d) Hard palate is narrow
  - e) The tongue is short, wide and thick
- 2) SC Choose the right characteristic describing salivary glands in newborns?
- a) Salivary glands of the newborn are well developed at birth
  - b) Salivary glands are well developed at birth, but salivary secretion is reduced
  - c) Submandibular and sublingual glands are well developed at birth
  - d) The parotid gland is not developed at birth
  - e) Parotid glands develop during the first weeks of life of a newborn
- 3) SC Choose which of the following characteristic does not describe the oral cavity of infants:
- a) Oral mucosa is thin and vulnerable to manipulation
  - b) The oral mucosa is relatively dry and predisposed to inflammation
  - c) Oral mucosa is poorly vascularized
  - d) The lower part of the oral mucosa contains villous folds
  - e) Oral mucosa is well vascularized
- 4) SC Select which of the following statements describing infants tongue is not correct:
- a) The tongue is short, wide and thick
  - b) The tongue has reduced mobility
  - c) The tongue has well developed muscle layer and high strength
  - d) The root of the tongue occupies the major part of the bottom wall of the mouth and due to it is less mobile
  - e) Taste corpuscles are underdeveloped
- 5) SC Gastric (hydrochloric) acid is secreted by:
- a) Parietal cells of the fundic glands
  - b) Surface epithelium
  - c) Principal cells of the fundic glands
  - d) Pyloric glands
  - e) Cardiac glands
- 6) SC Select the incorrect statement about the gastric secretion:
- a) The gastric mucus is secreted in the most part by pyloric cells of the mucosa
  - b) Protective role of gastric mucus is determined by the ratio of glycoproteins and mucopolysaccharides
  - c) The gastric mucus secretion is determined by the local excitation of the food
  - d) The chemical structure of mucus depends on local excitation of the food
  - e) Gastric (hydrochloric) acid is secreted by cardiac glands

7) SC Select which is the principal place of the absorption process in children:

- a) Duodenum
- b) The stomach
- c) Jejunum
- d) Large intestine
- e) Rectum

8) SC Select the incorrect function of the small intestine:

- a) Autoimmune function
- b) Immunological function
- c) Enzymatic function
- d) Bacteriological function
- e) Absorption

9) SC Regurgitation in children is:

- a) Oral expulsion of gastric contents in no significant quantities
- b) A pathological process preceded by nausea
- c) A physiological process, rare in infants
- d) Synonym of rumination
- e) Oral expulsion of air out from the stomach

10) SC When is established the gastric digestion in newborn?

- a) 24 hours after birth
- b) Slowly, during the firsts months of life
- c) At the age of 5-7 years old
- d) Immediately after birth in a fullterm baby, if he is healthy and breastfed
- e) 3 days after birth

11) SC Select the incorrect affirmation regarding stomach's peculiarities in infants:

- a) Well-vascularized mucosa
- b) Stomach muscles weakly developed
- c) Pyloric muscles well developed
- d) Fewer fundic glands of the stomach
- e) Pyloric muscles weakly developed

12) SC The endocrine function of the stomach is expressed through the secretion of:

- a) Pepsinogen
- b) Water
- c) Mucous
- d) Gastrin
- e) Hydrochloric acid

13) SC Select which is not a component of the pancreatic juice:

- a) Lipase
- b) Amylase
- c) Urease
- d) Trypsin
- e) Bicarbonate

14. SC Specify what is confirming the Gregerson reaction in to the stool

- a) The fecal pH
- b) Occult digestive bleeding
- c) Bacteria
- d) Leukocytes
- e) Glucose

15. SC Select which characteristic of the stool does not include steatorrhea:

- a) foamy/sparkling
- b) Pasty
- c) Adherent
- d) Oily
- e) Glossy

16. SC The content of saliva in infant does not include:

- a) Amylase
- b) Lipase
- c) Lysozyme
- d) Secretory IgA
- e) IgG

17. SC Select the incorrect statement describing pancreas peculiarities in newborns:

- a) Is undeveloped
- b) The weight at birth represents 3 grams
- c) Smooth surface
- d) A thin capsule
- e) Uneven surface

18. SC The ptyalism is not characteristic for:

- a) Stomatitis
- b) Teeth eruption
- c) Trigeminal neuralgia
- d) Pharyngitis
- e) Bulbar affection

19. SC Constipation is not characteristic for:

- a) Hypertrophic pyloric stenosis
- b) Congenital megacolon
- c) Anal stenosis and imperforate anus
- d) Excess feeding with cow's milk
- e) Lactose intolerance

20. Cs Hematemesis in newborn is not characteristic for:

- a) Hemolytic disease
- b) Hemorrhagic disease
- c) Excessive swallowing of mother's blood during delivery
- d) Hemorrhagic gastritis
- e) Stress ulcer

### Multiple choice tests:

1) MC Select skin appendages lesions suggestive for chronic liver disorders in children:

- a) Palmar erythema
- b) Nasal herpes manifestation
- c) White nails
- d) Vascular stars
- e) Acrocyanosis

2) MC Specify which of followings are considered appetite disorders:

- a) Bulimia
- b) Xerostomia
- c) Anorexia
- d) Asialie
- e) Halitosis

3) MC Select characteristics of newborn and infant duodenum:

- a) It is good fixed
- b) Duodenum is localized higher, at the level of I lumbar vertebra
- c) Duodenum is localized at the level of III- IV lumbar vertebra
- d) The duodenum is fixed incompletely
- e) Duodenum is relatively more voluminous

4) MC Select characteristics of stool in healthy breastfed infant:

- a) It is golden-yellow color with acid smell
- b) It is dark-yellow color, firm, foul-smelling and alkaline pH
- c) It is black, dark brown, gelatinous foul-smelling
- d) It is firm, solid, brown color
- e) It is frequent, in the first months of life after every alimentation, with unstable consistence

5) MC Establish which of following pathologies can evaluate with taste changing:

- a) Diphtheria
- b) Acute respiratory diseases
- c) Severe iron deficient anemia
- d) Hepatic failure
- e) Acute pyelonephritis

6) MC Select the pathologies where can be find gum inflammation:

- a) Acute and subacute gingivitis
- b) Chronic pyelonephritis
- c) Acute leukemia
- d) Hepatic cirrhosis
- e) Intestinal infections

7) MC Establish cases when can be determined bulimia in children:

- a) Diabetes mellitus
- b) Psychic disorders
- c) After corticosteroid therapy
- d) History of nervous anorexia
- e) Food allergy

8) MC For which of following pathologies is characteristic regurgitation?

- a) Chronic cholecystopathy
- b) Esophageal diverticulum
- c) Gastro-esophageal reflux
- d) Bulbar palsy
- e) Chronic gastritis

9) MC Considerable increase of abdominal volume in children can be in:

- a) Celiac disease
- b) Reactive pancreatitis
- c) Chronic persistent hepatitis
- d) Intestinal paresis
- e) Rickets

10) MC Specify pathologies of children which can occur with hematemesis:

- a) Esophageal varices
- b) Chronic gastritis
- c) Hiatal hernia
- d) Ulcer disease
- e) Disseminated intravascular coagulation (DIC) syndrome

11) MC Select signs of dehydration syndrome in children?

- a) Pallor of skin
- b) The skin fold slowly returns to the normal
- c) Sunken eyes
- d) Tachycardia
- e) Strong thirst, drink greedily

12) MC Specify stomach's anatomical features predisposing to regurgitation and vomiting in newborn and infant:

- a) Small stomach fundus, placed lower than pyloric part
- b) Muscle layer of the stomach is well developed
- c) Circular muscle layer of the pylorus is well developed
- d) Cardiac sphincter is undeveloped
- e) Physiological stomach volume is smaller

13) MC Select anatomical and physiological characteristics of the newborn and infant stomach:

- a) Decreased gastric secretion
- b) The pyloric sphincter is well developed
- c) The cardiac sphincter is insufficiently developed
- d) The three muscular layers of stomach are well developed
- e) The submucosa is well fixed

14) MC Specify the characteristics of the vermiform appendix in newborns:

- a) It is relatively long, with the lumen greater than in adults
- b) It is very mobile due to long mesentery
- c) It can be located in any part of the abdomen, most commonly in the retrocecal region
- d) It has developed lymph follicles since the first day after birth
- e) It has a length of about 5 cm

15) MC Select correct statements about steatorrhea?

- a) Steatorrhea is characteristic for cystic fibrosis
- b) Steatorrhea is characteristic for pancreatitis
- c) Steatorrhea is observed in infants artificially fed
- d) Steatorrhea is the clinical manifestation of lipid malabsorption
- e) Steatorrhea can be physiologic

16) MC Establish what represents vomiting in children:

- a) Forced oral expulsion of gastric contents
- b) Associated contraction of the stomach muscles, diaphragm and abdominal wall with oral expulsion of gastric contents
- c) Physiological process, preceded by nausea
- d) Isolated contractions of stomach muscles
- e) Expulsion of air out from the stomach with gastric contents in small volume

17) MC Select drugs which can change the color of stool in children, by giving an appearance of melena?

- a) Iron containing drugs
- b) Antacids
- c) Activated charcoal
- d) Bismuth containing drugs
- e) Enzymes

18) MC Select characteristics of rectum in newborn and infant:

- a) The rectum is relatively long
- b) The perirectal adipose tissue is not sufficiently developed
- c) The rectum is prone to prolapse
- d) The perirectal adipose tissue is well developed
- e) The rectal mucosa is highly vascularized

19) MC Determine indications for gastroduodenal endoscopy in children:

- a) Acute abdomen
- b) Upper gastrointestinal bleeding
- c) Assessment of the efficacy of anti-ulcerous treatment
- d) Suspicion of developmental abnormalities of the digestive tract
- e) Gastroesophageal reflux disease

20) MC Specify pathologies which can occur with dysphagia:

- a) Iron deficient anemia
- b) Developmental abnormalities of the esophagus
- c) Tumors located in the pharynx, esophagus
- d) Pharyngitis
- e) Esophagitis

21) MC Select characteristic signs for acute gastroenteritis in children:

- a) Vomiting with consumed aliments (alimentary vomiting)
- b) Hiccup
- c) Abdominal pain

- d) Diarrhea
- e) Signs of dehydration

22) MC Mark from the following pathologies, those which can occur with vomiting:

- a) Acute diarrheic disease
- b) Cerebral concussion
- c) Cardiovascular malformations
- d) Pyloric spasm, pyloric stenosis
- e) Food poisoning

23) MC Select characteristics of small intestine in newborns:

- a) It is longer than in adults
- b) It is more mobile
- c) It has an abundantly vascularized mucosa
- d) Mucosal and muscular layers are poorly attached one to each other
- e) It consists of four segments

24) MC Mark corrects peculiarities of the pancreas in young children:

- a) The pancreas is covered with a thin elastic capsule
- b) Pancreatic ducts are large and have the same size
- c) Inflammatory processes in the pancreas have mild evolution in children
- d) The incidence of pancreatic disease in children is rarer than in adults
- e) Anatomical peculiarities of pancreatic-duodenal area prone to reactive pancreatitis in children

25) MC Establish children's stool characteristics in enteritis:

- a) Abundant foul-smelling faeces
- b) Liquid consistency (watery stool)
- c) Small quantities of faeces
- d) Non-digerated, frequent stools
- e) Steatorrhea

26) MC Select children's pathologies characterized by bulimia:

- a) Intestinal parasites
- b) Acute drug intoxications
- c) Chronic renal failure
- d) Psychic disorders
- e) Recovering period from serious illness

27) MC Pepsinogen is secreted by:

- a) Fundic principal cells
- b) Fundic parietal cells
- c) Exocrine cells of pyloric glands
- d) Surface epithelium
- e) Mucolytic cells of fundic glands

28) MC Specify inhibitors of stomach motoric function:

- a) Gastrin and motilin
- b) Cholecystokinin and secretin
- c) Parasympathetic nervous system

- d) Sympathetic nervous system
- e) Histamine

29) MC Mark by who is secreted the mucin:

- a) Surface epithelium
- b) Cardiac glands
- c) Mucoïd cells of fundic glands
- d) Epithelial cells of gastric glands
- e) Pyloric glands

30) MC Determine gastric acidity (pH) indices:

- a) 4.7 in premature
- b) 3.5-4.0 until the age of 3 months
- c) 1.5-3.0 from 3 months to 1 year
- d) 1.8 in children older than 12 years
- e) 1.5-2.0 in newborn

31)MC Specify anatomical and physiological characteristics of the large intestine in newborn?

- a) Epiploic appendices are undeveloped
- b) The haustra of colon is weakly differentiated
- c) The taenia of colon is not developed
- d) The large intestine length is about 1 m
- e) The transverse colon in infants is located obliquely

32)MC Select characteristics of infant abdominal colic:

- a) It is more common during the 3<sup>rd</sup> -12<sup>th</sup> weeks of life
- b) They are due to increased intestinal peristalsis
- c) They are more common in infants with food allergy
- d) It is caused by intestinal helminths
- e) They may be associated with inflammatory processes of the abdominal cavity

33)MC Select stool's characteristics of an infants aged 6 months old artificially fed:

- a) It is 5-7 times in 24 hours
- b) It has fetid smell
- c) It has the consistency of pasty or is consistent
- d) The consistency is unstable, from semiliquid to pasty
- e) It has a tendency to constipation; stool frequency is an average of 1 time in 24 hours

34)MC Specify stool's characteristics in acute enterocolitis?

- a) Aqueous faeces
- b) Non-digerated faeces
- c) Consistent stool
- d) The presence of mucus
- e) Creatorrhea, steatorrhea, amyloïrrhea in anamnesis

35)MC Determine the correct statements for steatorrhea?

- a) Steatorrhea is characteristic for celiac disease
- b) Steatorrhea is characteristic for pancreatitis
- c) Steatorrhea is observed in breastfed infants



- d) Steatorrhea is the clinical manifestation of lipid malabsorption
- e) Steatorrhea can be physiologic

36) MC Specify characteristic of central vomiting in children:

- a) Usually it is in the morning
- b) It is associated with headache
- c) Usually it is without nausea
- d) It brings a feeling of relief
- e) It doesn't bring a feeling of relief

37) MC Establish causes of physiological sialorrhea:

- a) It is connected by the appearance of salivary glands function
- b) Dental eruption
- c) Opened mouth
- d) Stomatitis
- e) Gingivitis

38) MC Specify intestinal function:

- a) Enzymatic
- b) Bacteriological
- c) Immunological
- d) Secretory
- e) Incretory

39) MC Mark stomach physiological volume:

- a) In newborns – 7ml
- b) At the 4<sup>th</sup> day after birth – 40ml
- c) At the 8<sup>th</sup> day after birth – 80ml
- d) At 1 year old – 250ml
- e) At 3 years old – 1000 ml

40) MC Specify pathologies where is present chronic diarrhea:

- a) Ulcerous colitis
- b) Crohn disease
- c) Hurler disease
- d) Cystic fibrosis
- e) Chronic pancreatitis

## Semiology of digestive system in children

### Single choice tests

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

### Multiple choice tests

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