

**Sumy State University
Medical Institute
Department of Internal Medicine
with the Center for Respiratory Medicine**

**Methodological Instructions
for 4th course students**

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Sumy – 2021

Methodological Instruction to Lesson № 1.

Propedeutics in gastroenterology.

Hours: 6.

Working place: classroom, hospital wards.

Questions.

1. Name main complaints in patients with gastrointestinal diseases.
2. Name definition and classification of dysphagia.
3. Heartburn, regurgitation, flatulence: definition and diseases that associated with them.
4. Causes of nausea and vomiting.
5. Name important factors in the assessment of abdominal pain.
6. Diarrhea: definition, classification, causes of diarrhea.
7. Constipation: definition, causes of constipation.
8. Clinical picture and causes of acute upper gastrointestinal bleeding.
9. Clinical picture and causes of lower gastrointestinal bleeding.
10. What is this occult gastrointestinal bleeding? Causes of occult gastrointestinal bleeding.
11. Malabsorption: etiology and pathogenesis; possible physical consequences of malabsorption.
12. Malabsorption: coprological data which characterized malabsorption; possible physical consequences of malabsorption.
13. Peripheral stigmata (signs) of chronic liver disease.
14. Describe bilirubin metabolism.
15. Hemolytic jaundice: causes and clinical features.
16. Hepatocellular jaundice: causes and clinical features.
17. Cholestasis jaundice: causes and clinical features.
18. Portal hypertension: causes of portal hypertension according to site of abnormality.
19. Clinical features and complications of portal hypertension.
20. Ascites: definition, appearance and causes of ascites.
21. Hepatic encephalopathy: clinical features, factors precipitating hepatic encephalopathy.
22. Laboratory syndromes in patients with liver diseases.

Examples of Tests

1. **Choose correct answers about ascitic fluid in the abdomen:**
 - A. Percussion starts around the umbilicus (resonant) towards the flanks;
 - B. Percussion starts from the flanks towards the umbilicus;
 - C. Roll the patient on to the left-hand side and note that level of dullness moves towards the umbilicus;

- D. Roll the patient on to the right-hand side and note that level of dullness moves towards the flank;
- 2. Which information gives contrast radiology of the gastrointestinal tract?**
- A. Detecting filling defects;
 - B. Detecting polycystic kidney;
 - C. Motility disorder;
 - D. Detecting strictures, erosions, ulcers;
- 3. Which factors conduce to the development of the gastric and duodenal ulcer?**
- A. Hydrochloric acid;
 - B. Non-steroidal anti-inflammatory drugs;
 - C. Helicobacter pylori;
 - D. Hypertension;
 - E. Cultured milk foods;
- 4. Name defensive factors of gastric mucosa:**
- A. Pepsin;
 - B. Prostaglandins;
 - C. Gastric mucosal-bicarbonate barrier;
 - D. Gastrin hypersecretion;
- 5. Name main complaints in patients with the diseases of esophagus, except:**
- A. Dysphagia;
 - B. Vomiting;
 - C. Diarrhoea;
 - D. Bleeding;
 - E. Heartburn;

Answers:

1. A, C; 2. A, C, D; 3. A, B, C; 4. B, C; 5. C;

References.

1. Davidson's Principles and Practice of Medicine. Edition 23-st The Editors: Nicki R. Colledge, Brian R. Walker, Stuart H. Ralston. – 2016.
2. Goldman-Cecil medicine / [edited by] Lee Goldman, Andrew I. Schafer. – 25-th edition. Copyright 2016.
3. Methodological Instructions for 4th course students, 7 semester Module 1 "Gastroenterology" Murenets N. A., Orlovsky A. V. - Sumy, 2012.
4. Essential Practical Skills in Internal Medicine [Электронный ресурс] / Т. Pertseva. – 2021 <https://openeducationalberta.ca/mlsci/>

Methodological Instruction to Lesson № 2.

GASTRO-OESOPHAGEAL REFLUX DISEAS.

Hours: 4.

Working place: classroom, hospital wards.

Questions.

1. Name anatomico-physiological peculiarities of esophagus.
2. Name etiology of gastro-esophageal reflux disease.
3. Why does hiatus hernia cause reflux?
4. Name important features of hiatus hernia.
5. Why do defective esophageal clearance and gastric contents cause reflux?
6. Which patients have increased intra-abdominal pressure?
7. Name dietary factors which can cause gastro-esophageal reflux?
8. Clinical picture in patients with gastro-esophageal reflux disease.
9. Name complications in patients with gastro-esophageal reflux disease.
10. Barret esophagus: definition, epidemiology, clinical presentation, diagnosis, management.
11. Benign esophageal stricture: etiology, clinical picture, diagnosis, management.
12. Investigations in patients with gastro-esophageal reflux disease.
13. Name indications to endoscopy in patients with suspected gastro-esophageal reflux disease.
14. What can you see by endoscopy in patients with gastro-esophageal reflux disease.
15. Which pH is diagnostic of reflux disease?
16. Name pieces of advice in patients with gastro-esophageal reflux disease.
17. Antacids: drugs with dosing regimen, side effects.
18. Name Histamin H₂-receptor antagonists drugs with dosing regimen.
19. Name Proton-pump inhibitors with dosing regimen.
20. Step-down approach to treatment in patients with gastro-esophageal reflux disease.

Examples of Tests "GERD"

- 1. Name main symptom in patients with gastro-esophageal reflux disease:**
 - A. Pain in the epigastrium
 - B. Heartburn
 - C. Nausea
 - D. Vomiting
- 2. Name cause of gastro-esophageal reflux disease, except:**
 - A. Hiatus hernia
 - B. Dietary and environmental factors
 - C. Weight loss
 - D. Increased intra-abdominal pressure
- 3. What is Barret`s esophagus?**
 - A. pre-malignant glandular metaplasia of the lower esophagus
 - B. this is a cancer of esophagus
 - C. it can be redness, bleeding ulceration with stricture formation in esophagus
 - D. it is an adenocarcinoma of stomach
- 4. Which therapy can induce regression of Barret`s esophagus?**
 - A. acid suppression therapy

- B. antireflux surgery
- C. endoscopic ablation therapy or photodynamic therapy

Answers:

1.B; 2. C; 3. A; 4. C;

References.

1. Davidson's Principles and Practice of Medicine. Edition 23-st The Editors: Nicki R. Colledge, Brian R. Walker, Stuart H. Ralston. – 2016.
2. Goldman-Cecil medicine / [edited by] Lee Goldman, Andrew I. Schafer. – 25-th edition. Copyright 2016.
3. Global Perspective on Gastroesophageal Reflux Disease (2015) <https://www.worldgastroenterology.org/guidelines/global-guidelines/gastroesophageal-reflux-disease/gastroesophageal-reflux-disease-english>
4. Guidelines for the Diagnosis and Management of Gastroesophageal Reflux Disease (2018) https://journals.lww.com/ajg/Fulltext/2013/03000/Guidelines_for_the_Diagnosis_and_Management_of.6.aspx

Methodological Instruction to Lesson № 3.

Functional Dyspepsia. Gastritis.

Hours: 6.

Working place: classroom, hospital wards.

Questions.

1. Name classification of gastrointestinal disorder.
2. Name definition and etiology of functional dyspepsia and dyspeptic symptoms.
3. Name diagnostic criteria for functional dyspepsia.
4. Name diagnostic criteria for postprandial distress syndrome.
5. Name diagnostic criteria for epigastric pain syndrome.
6. Name 6-point management strategy for primary care physicians first seeing patients with dyspepsia.
7. Treatment in patient with functional dyspepsia.
8. Acute gastritis: etiology, pathomorphology, clinical picture, diagnostics, treatment.
9. Chronic gastritis due to Helicobacter pylori infection: bacteria characteristics, epidemiology of H. pylori gastritis.
10. Clinical picture in patients with chronic gastritis.
11. Name tests for detecting of H. pylori.
12. Autoimmune chronic gastritis: etiology, pathomorphology, clinical picture, diagnostics, treatment.
13. Treatment in patients with chronic gastritis.

14. Name Regimens recommended for eradication of H. pylori infection.
15. Lymphocytic gastritis: etiology, pathomorphology, clinical picture, diagnostics, treatment.
16. Eosinophilic gastritis: etiology, pathomorphology, clinical picture, diagnostics, treatment.
17. Granulomatous gastritis: etiology, pathomorphology, clinical picture, diagnostics, treatment.
18. Menetrie`s disease: etiology, pathomorphology, clinical picture, diagnostics, treatment.

Examples of Tests “Functional dyspepsia. Gastritis”.

- 1. Name Nausea and vomiting disorders, except:**
 - A. Chronic idiopathic nausea;
 - B. Aerophagia;
 - C. Functional vomiting;
 - D. Cyclic vomiting syndrome.

- 2. Give the definition of postprandial fullness:**
 - A. A feeling that the stomach is overfilled soon after starting to eat;
 - B. Some patients may feel that tissue damage is occurring;
 - C. An unpleasant sensation like the prolonged persistence of food in the stomach;
 - D. An unpleasant subjective sensation of heat.

- 3. Name Diagnostic Criteria for Functional Dyspepsia:**
 - A. Botherome postprandial fullness;
 - B. Early satiation;
 - C. Epigastric pain;
 - D. Epigastric burning;
 - E. All named above.

- 4. Which of the below is not H2 - antagonist :**
 - A. Ranitidine;
 - B. Cimetidini;
 - C. Omeprazole;
 - D. Famotidini;
 - E. Nizatidine

- 5. Name non-invasive test for detecting of H. pylori which is useful for early follow-up:**
 - A. Histology;
 - B. Urea breath test;
 - C. Stool antigen;
 - D. Serology.

Answers:

1.B; 2. C; 3. E; 4. C; 5. B.

References.

1. Davidson`s Principles and Practice of Medicine. Edition 23-st The Editors: Nicki R. Colledge, Brian R. Walker, Stuart H. Ralston. – 2016.

2. Goldman-Cecil medicine / [edited by] Lee Goldman, Andrew I. Schafer. – 25-th edition. Copyright 2016.
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4. Clinical Guideline: Management of Dyspepsia (2017) [https://journals.lww.com/ajg/fulltext/2017/07000/ACG and CAG Clinical Guideline Management of.10.aspx](https://journals.lww.com/ajg/fulltext/2017/07000/ACG_and_CAG_Clinical_Guideline_Management_of.10.aspx)

Methodological Instruction to Lesson № 4.

PEPTIC ULCER DISEASE

Hours: 4.

Working place: classroom, hospital wards.

Questions

1. Name essentials of diagnosis (peptic ulcer).
2. What is this symptoms rhythmicity and periodicity.
3. Give the definition of peptic ulcer.
4. Which layers of stomach are affected when there is peptic ulcer?
5. Name differences between erosions and ulcer.
6. Name epidemiology of peptic ulcer.
7. Where benign ulcers are localized in stomach?
8. What can you say about the history of duodenal and gastric ulcer for the last 30 years?
9. Name etiology of peptic ulcer.
10. 70-85% of patients after eradication therapy will have an endoscopically documented recurrence within 1 year? What do you think? Why?
11. Give some words about H. pylori.
12. What can you say about NSAID-induced ulcers?
13. Name the most ulcerogenic NSAID.
14. Name risk factors of NSAID complications.
15. Name NSAIDs which don't induce ulcer. Why?
16. Clinical presentation in patients with peptic ulcer.
17. What is this "silent ulcer"?
18. Describe pain in patients with duodenal ulcer.
19. What is this hunger pain?
20. Which symptoms set you thinking about complications, i.e. penetration and perforation?
21. Which symptoms set you thinking about malignancy?
22. Name laboratory findings in patients with peptic ulcer.
23. About what do you think if there is leucocytosis or elevated serum amylase?

24. Which investigation is investigation of choice in patients with ulcer? Why?
25. Will you prescribe endoscopy with biopsy to patients with duodenal ulcer? Why?
26. Will you prescribe endoscopy with biopsy to patients with gastric ulcer? Why?
27. Will you prescribe endoscopy after treatment? When? Why?
28. If there is unhealed ulcer through 12 weeks after treatment about what do you think?
29. What can you see by x-Ray with barium?
30. Testing for H. pylori.
31. Give differential diagnosis of peptic ulcer.
32. Name main groups of drug to treat patient with peptic ulcer.
33. Name dosing regimen of different drugs in patients with peptic ulcer.
34. Name complications in patients with peptic ulcer.
35. Name clinical picture and treatment of complications in patients with peptic ulcer.
36. Prognosis in patients with peptic ulcer.

Examples of Tests “Ulcer”

- 1. Which epithelium do H. pylori exclusively colonize?**
 - A. esophagus;
 - B. gastric-type epithelium;
 - C. duodenum-type epithelium;
 - D. intestine-type epithelium;
- 2. Name etiology factors which can induce duodenal ulcer, except:**
 - A. H. pylori infection;
 - B. NSAIDs;
 - C. Dietary factors;
 - D. Smoking;
- 3. Name side-effect of antacids with calcium compounds:**
 - A. constipation;
 - B. diarrhea;
 - C. block absorbtion of digoxin;
 - D. exacerbate congestive heart failure;
- 4. Name dosing regimen of sucralfate:**
 - A. 0,5 g 12-hourly;
 - B. 1 g 12-hourly;
 - C. 1,5 g 12-hourly;
 - D. 2 g 12-hourly;
- 5. Name dosing regimen of pantoprasol:**
 - A. 10 mg once daily;
 - B. 20 mg once daily;
 - C. 30 mg once daily;
 - D. 40 mg once daily;

Answers:

1. B; 2. C; 3. A; 4. D; 5. D.

References.

1. Davidson's Principles and Practice of Medicine. Edition 23-st The Editors: Nicki R. Colledge, Brian R. Walker, Stuart H. Ralston. – 2016.
2. Goldman-Cecil medicine / [edited by] Lee Goldman, Andrew I. Schafer. – 25-th edition. Copyright 2016.
3. Bateson M. Clinical Investigations in Gastroenterology [Electronic resource] / M. Bateson, A. D Bouchier ; by Malcolm C. Bateson, Ian A.D. Bouchier. – 3rd ed. 2017. – Cham : Springer International Publishing, 2017. – XIX, 225 p.

Methodological Instruction to Lesson № 5.

Diseases of Gallbladder and Bile Ducts

Hours: 6.

Working place: classroom, hospital wards.

Questions.

1. Give the classification of gallstones.
2. Name contents of gallstones.
3. Give an epidemiology of gallstones.
4. Give a pathogenesis of gallstones.
5. Name risk factors and mechanism for cholesterol gallstones.
6. What can you say about black and brown pigment stones mechanism formation (risk factors)?
7. Name composition of black and brown pigment stones.
8. What can you say about mixed stones?
9. Can you see mixed stones radiographically? Why?
10. What can you say about size and localization of gallstones?
11. What is this biliary sludge?
12. Name four F's risk factors.
13. Name clinical features in patient with Gallstones.
14. Name differential diagnosis in patient with Gallstones.
15. Name investigations in patient with Gallstones.
16. Name complications in patient with Gallstones.
17. Name treatment in patient with Gallstones.
18. Which is better open cholecystectomy or laparoscopic? Why?
19. What can you say about medical dissolution of Gallstones?
20. Name mechanism of action and side-effects of Ursodesoxicholic acid.
21. What can you say about biliary motor disorder.

Examples of Tests "Diseases of Gallbladder and Bile Ducts"

1. The primary components of bile are all of the following except:

- A. Water
- B. Cholesterol
- C. Bile salts
- D. Glucose

2. Risk factors for developing gallstones include all except

- A. Obesity
- B. Fasting often
- C. Age over 40
- D. Taking testosterone

3. The most common gallstones in the World are

- A. Cholesterol
- B. Black pigment
- C. Brown pigment
- D. Crystals

Answers:

1. D; 2. D; 3. A;

References.

1. Davidson's Principles and Practice of Medicine. Edition 23-st The Editors: Nicki R. Colledge, Brian R. Walker, Stuart H. Ralston. – 2016.
2. Goldman-Cecil medicine / [edited by] Lee Goldman, Andrew I. Schafer. – 25-th edition. Copyright 2016.
3. Bateson M. Clinical Investigations in Gastroenterology [Electronic resource] / M. Bateson, A. D Bouchier ; by Malcolm C. Bateson, Ian A.D. Bouchier. – 3rd ed. 2017. – Cham : Springer International Publishing, 2017. – XIX, 225 p.

Methodological Instruction to Lesson № 6.

DISEASES OF SMALL INTESTINE
IRRITABLE BOWEL SYNDROME

Hours: 4.

Working place: classroom, hospital wards.

Questions.

1. Give essentials of diagnosis irritable bowel syndrome.
2. Give the definition of irritable bowel syndrome.
3. Give pathogenesis of irritable bowel syndrome: abnormal motility, heightened visceral nociception, psychosocial abnormalities.
4. Give clinical picture in patients with irritable bowel syndrome.
5. In which case patient can use terms constipation or diarrhea?

6. Name symptoms you think about organic disease.
7. Name laboratory findings which will you prescribe to patients with presumptive irritable bowel syndrome.
8. Name instrumental findings which will you prescribe to patients with presumptive irritable bowel syndrome, according to age.
9. Treatment in patient with irritable bowel syndrome: first step or general measures.
10. Name dietary therapy in patient with irritable bowel syndrome.
11. Name flatulogenic foods.
12. Pharmacological treatment in patients with irritable bowel syndrome.
13. Give the definition of Coeliac disease.
14. Give etiology and pathogenesis of Coeliac disease.
15. What is T-cells? (enzyme tissue transglutaminase – TTG)
16. Cytokine activity result in:
17. Give epidemiology of Coeliac disease.
18. Clinical features in infants and adults.
19. Investigations in patients with Coeliac disease. (gold standard and other investigations)
20. Name treatment in patient with Coeliac disease.
21. Name complications in patient with Coeliac disease.
22. Give definition, etiology, clinical presentation and treatment in patient with Lactose intolerance.
23. Give definition, etiology, clinical presentation and treatment in patient with Tropical sprue.
24. Give causes of small bacterial overgrowth.
25. Investigations and treatment in patient with small bacterial overgrowth.
26. Whipple's disease: definition, pathomorphology, clinical presentation, treatment.

Examples of Tests "Irritable bowel syndrome"

- 1. Which food is recommended to stimulate peristaltic of the bowel, except:**
 - A. beet roots
 - B. carrots
 - C. plums
 - D. cheese
 - E. rye bread

- 2. Enzyme preparation must be taken:**
 - A. before meal
 - B. with food
 - C. after meal
 - D. at bed time

- 3. Dosing regimen of furasolidon:**
 - A. 0,1 g 4 times a day 5 – 10 days
 - B. 0,5 g 4 times a day 5 – 10 days

C. 0,1 g 4 times a day 2 – 3 days

D. 0,5 g 4 times a day 2 – 3 days

Answers:

1. D; 2. B; 3. A.

References.

1. Davidson's Principles and Practice of Medicine. Edition 23-st The Editors: Nicki R. Colledge, Brian R. Walker, Stuart H. Ralston. – 2016.
2. Goldman-Cecil medicine / [edited by] Lee Goldman, Andrew I. Schafer. – 25-th edition. Copyright 2016.
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4. Diagnosis and management of adult coeliac disease: guidelines from the British Society of Gastroenterology/ Jonas F Ludvigsson and other. – 2014.
5. WGO Practice Guideline - Irritable Bowel Syndrome (IBS) Irritable Bowel Syndrome: a Global Perspective (2015) <http://www.worldgastroenterology.org/guidelines/global-guidelines/irritable-bowel-syndrome-ibs>.

Methodological Instruction to Lesson № 7.

INFLAMMATORY BOWEL DISEASE

Hours: 6.

Working place: classroom, hospital wards.

Questions

1. Give the definition of ulcerative colitis.
2. Give the definition of Crohn's disease.
3. Name main groups of drugs to treat patients with ulcerative colitis.
4. Name main groups of drugs to treat patients with Crohn's disease.
5. Name formulations (drugs) of 5-aminosalicylic acid.
6. What can you say about sulfasalazine.
7. Name side-effects of sulfapyridine.
8. In which percent of patients side-effects of sulfasalazine are developed?
9. How many mg of 5-aminosalicylic acid is in 1g of sulfasalazine?
10. What can you say about oral mesalamine agent?
11. What can you say about olsalazine?
12. What can you say about topical mesalamine?
13. Name advantages of topical mesalamine.
14. What can you say about corticosteroids?
15. Name side-effects of corticosteroids.
16. What can you say about mercaptopurine and azathioprine?
17. Name side-effects of mercaptopurine.
18. How often should be obtained complete blood count if patient take mercaptopurine?

19. Give essentials of diagnosis Crohn's disease.
20. Name involvement localization in patient with Crohn's disease.
21. Name differences between Crohn's disease and ulcerative colitis.
22. Clinical presentation in patient with Crohn's disease.
23. Name causes of intestinal obstruction.
24. Name symptoms in patient with intestinal obstruction.
25. Where can be enterocutaneous fistulas?
26. Why patients with Crohn's disease often have gallstones?
27. Name changes in laboratory findings and their causes.
28. Name advantages of colonoscopy.
29. What can you see by colonoscopy?
30. How can you confirm the diagnosis Crohn's disease?
31. Name complications of Crohn's disease.
32. How can you confirm abscess and its clinical picture, treatment?
33. Name causes of obstructions. Treatment.
34. Name treatment of fistulas.
35. Treatment of perianal disease.
36. Differential diagnosis in patient with Crohn's disease.
37. Name aims of the treatment of Crohn's disease.
38. Name indication to TPN.
39. How will you decrease dosage of prednisolon.
40. Name topically active steroid.
41. If there is palpable inflammatory bowel mass how will you prescribe steroids?
42. Name indications to prescriptions immunomodulatory drugs.
43. Name drugs and dosage to maintainance of Crohn's disease remissions.
44. Name indications for surgery.
45. Give essentials of diagnosis ulcerative colitis.
46. Name involvement localization in patient with ulcerative colitis.
47. Give classification and main doctors questions to patients with ulcerative colitis.
48. Physical examination in patients with ulcerative colitis.
49. Give characteristic to mild and moderate ulcerative colitis disease and their differences.
50. Name extracolonic manifestation in patients with ulcerative colitis.
51. What can you see by endoscopy in patients with ulcerative colitis?
52. Differential diagnosis in patient with ulcerative colitis.
53. Name treatment in patient with distal colitis.
54. Name treatment in patient with mild and moderate colitis.
55. Name treatment in patient with severe colitis.
56. What can you say about complications of ulcerative colitis?
57. Indications to surgery intervention in patient with ulcerative colitis.

Examples of Tests "Inflammatory bowel disease"

1. According to Mayo classification ulcerative colitis stage 2 (moderate disease) include all, except

- A. obvious rectal bleeding
- B. moderate PGA
- C. involves 5 stools per day more than normal
- D. moderate PGA

2. Which one of the following medications would be contraindicated in a pregnant patient with Crohn disease?

- A. Methotrexate
- B. Budesonide
- C. Sulfasalazine
- D. Infliximab

3. Which medication is most appropriate for quickly suppressing inflammation in patients with moderately active UC?

- A. Balsalazide
- B. 5-aminosalicylic acid
- C. Methotrexate
- D. 6-mercaptopurine

Answers:

1. C; 2. A; 3. B.

References.

1. Davidson's Principles and Practice of Medicine. Edition 23-st The Editors: Nicki R. Colledge, Brian R. Walker, Stuart H. Ralston. – 2016.
2. Goldman-Cecil medicine / [edited by] Lee Goldman, Andrew I. Schafer. – 25-th edition. Copyright 2016.
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4. WGO Practice Guideline - Irritable Bowel Syndrome (IBS) Irritable Bowel Syndrome: a Global Perspective (2015) <http://www.worldgastroenterology.org/guidelines/global-guidelines/irritable-bowel-syndrome-ibs>
5. World Gastroenterology Organisation Global Guidelines Celiac disease (2016) <http://www.worldgastroenterology.org/guidelines/global-guidelines/ceeliac-disease>. <https://gi.org/clinical-guidelines/clinical-guidelines-sortable-list/>
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Methodological Instruction to Lesson № 8.

Chronic Hepatitis

Hours: 4.

Working place: classroom, hospital wards.

Questions

1. Give the definition of chronic hepatitis.
2. Give the etiology of chronic hepatitis.
3. Give the classification of chronic hepatitis.
4. Name main features of autoimmune hepatitis.
5. Give the definition and etiology of autoimmune hepatitis; characterize the onset of the disease.
6. Describe laboratory changes in patient with autoimmune hepatitis.
7. Examination and extrahepatic features in patient with autoimmune hepatitis.
8. Name differences between type I and II in patient with autoimmune hepatitis.
9. Chronic hepatitis B: mode of transmission, characterize the onset of the disease, characterize viral replication phase.
10. How can you confirm a presence of delta agent in patient?
11. Name consequences of acute delta infection.
12. How can you confirm the diagnosis hepatitis C?
13. Name dosing regimen of prednisone, mercaptopurine, azathioprine in patient with chronic hepatitis.
14. How can you reduce the dose of prednisone?
15. Name side-effects of corticosteroids.
16. Name side-effects of mercaptopurine.
17. How often will you monitor complete blood count in patients which are used mercaptopurine?
18. When can you see normalization of serum aminotransferase in patient with chronic hepatitis after prescribing corticosteroids?
19. When can you see histologic resolution in patient with chronic hepatitis after prescribing corticosteroids?
20. When will you repeat liver biopsy in patient with chronic hepatitis? Why?
21. If there is no responds to prednisone and azathioprine what will you prescribe?
22. Will you prescribe any drugs to patients after successful treatment of a relapse?
23. Name treatment of active viral replication in patient with chronic hepatitis B.
24. How many patients may be cured of HBV infection and how can you confirm this fact?
25. Name nucleoside analogs to treat patients with HBV infection.
26. How will you prescribe interferon to patient with HDV infection?
27. How will you prescribe interferon to patient with HCV infection?
28. Name side-effects of α -interferon.
29. Name contraindications to prescription α -interferon.
30. Name possible consequences of hepatitis.
31. Give clinical features in patients with alcoholic hepatitis.
32. Name laboratory findings in patients with alcoholic hepatitis.
33. What can you see in liver biopsy in patients with alcoholic hepatitis?

34. Name instrumental findings which will you prescribe to patients with alcoholic hepatitis and their aims.
35. Name complications in patients with alcoholic hepatitis.
36. Treatment in patients with alcoholic hepatitis.
37. Name direct hepatotoxic drugs and toxins.
38. Name drugs that may cause idiosyncratic reactions.
39. Name drugs that may cause cholestatic reactions.
40. Laboratory syndromes in patients with liver diseases.

Examples of Tests " Chronic Hepatitis"

1. Which of these things can cause hepatitis?

- A. Viruses
- B. Medicines and alcohol
- C. Immune system that's not working as it should
- D. All of the above

2. The disease exists in short-term (acute) and long-term (chronic) forms. How long does acute hepatitis last?

- A. Less than 6 months
- B. Less than 3 months
- C. About 6 weeks
- D. 1 month

3. What are the symptoms of hepatitis?

- A. Tiredness (fatigue)
- B. Low fever
- C. Nausea
- D. All of the above

4. Which form of hepatitis can be passed on through contaminated food or water?

- A. B
- B. C
- C. A and E
- D. All of the above

5. A blood test can confirm hepatitis. Doctors look for an elevated amount of which of these?

- A. White blood cells
- B. Calcium
- C. Interferon
- D. Liver enzymes

Answers:

1.D; 2. C; 3. D; 4.C; 5. D

References.

1. Davidson's Principles and Practice of Medicine. Edition 21-st The Editors: Nicki R. Colledge, Brian R. Walker, Stuart H. Ralston. – 2010.

2. Goldman-Cecil medicine / [edited by] Lee Goldman, Andrew I. Schafer. – 25-th edition. Copyright 2016.
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4. <https://www.merckmanuals.com/professional/hepatic-and-biliary-disorders/hepatitis/https://gi.org/clinical-guidelines/clinical-guidelines-sortable-list/>
5. World Gastroenterology Organisation Practice Guideline Diagnosis, Management and Prevention of Hepatitis C (2017) <http://www.worldgastroenterology.org/guidelines/global-guidelines/hepatitis-c>.

Methodological Instruction to Lesson № 9.

Cirrhosis

Hours: 6.

Working place: classroom, hospital wards.

Questions.

1. Give the definition of cirrhosis.
2. Name etiology factors of cirrhosis.
3. Name histologic classification of cirrhosis.
4. Name histologic features in patients with alcoholic cirrhosis.
5. Name complaints in patients with cirrhosis.
6. Name causes of abdominal pain in patients with cirrhosis.
7. What can you say about examination in patients with cirrhosis (palpation, percussion).
8. Name skin manifestation in patients with cirrhosis.
9. Name signs of encephalopathy.
10. Name features of portal hypertension.
11. What do you think about if there is fever in patients with cirrhosis.
12. Name laboratory changes in patients with cirrhosis.
13. Name instrumental findings and their changes in patients with cirrhosis.
14. Give differential diagnosis in patients with cirrhosis.
15. Name complications in patients with cirrhosis.
16. Give the definition of primary biliary cirrhosis.
17. Clinical features in patients with cirrhosis.
18. Laboratory findings in patients with biliary cirrhosis.
19. Differential diagnosis in patients with biliary cirrhosis.

Examples of Tests " Cirrhosis"

1. Cirrhosis is most accurately (definitively) diagnosed by _____.
- A. Eye exam
 - B. Blood test
 - C. Liver biopsy
 - D. All of the above

2. What is the most common type of chronic viral hepatitis in the world?

- A. Hepatitis A
- B. Hepatitis B
- C. Hepatitis C
- D. Hepatitis D and/or E

3. What important functions are affected by severe, acute, or chronic liver disease?

- A. Blood clotting
- B. Elimination of water, salt, drugs, and toxins from the body
- C. Manufacture of blood proteins
- D. All of the above

4. Liver disease can also arise from...

- A. Acetaminophen
- B. Mushrooms
- C. Statins
- D. All of the above

5. The best liver function test is:

- A. AST/ALT
- B. Alkaline phosphatase
- C. Bilirubin
- D. INR

Answers:

1.D; 2.B; 3D.; 4D.; 5 D.

References.

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2. Goldman-Cecil medicine / [edited by] Lee Goldman, Andrew I. Schafer. – 25-th edition. Copyright 2016.
3. Bateson M. Clinical Investigations in Gastroenterology [Electronic resource] / M. Bateson, A. D Bouchier ; by Malcolm C. Bateson, Ian A.D. Bouchier. – 3rd ed. 2017. – Cham : Springer International Publishing, 2017. – XIX, 225 p.
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Methodological Instruction to Lesson № 10.

Chronic pancreatitis

Hours: 4.

Working place: classroom, hospital wards.

Questions.

1. Give the definition of chronic pancreatitis.

2. Give the etiology of chronic pancreatitis.
3. Name pathophysiology of chronic pancreatitis.
4. Name clinical features in patients with chronic pancreatitis.
5. Give laboratory changes in patients with chronic pancreatitis.
6. Name instrumental findings in patients with chronic pancreatitis.
7. Name complications in patients with chronic pancreatitis.
8. Name treatment in patients with chronic pancreatitis.

References.

1. Davidson's Principles and Practice of Medicine. Edition 21-st The Editors: Nicki R. Colledge, Brian R. Walker, Stuart H. Ralston. – 2010.
2. Goldman-Cecil medicine / [edited by] Lee Goldman, Andrew I. Schafer. – 25-th edition. Copyright 2016.
3. Bateson M. Clinical Investigations in Gastroenterology [Electronic resource] / M. Bateson, A. D Bouchier ; by Malcolm C. Bateson, Ian A.D. Bouchier. – 3rd ed. 2017. – Cham : Springer International Publishing, 2017. – XIX, 225 p.
4. <https://www.merckmanuals.com/professional/gastrointestinal-disorders/pancreatitis>

1. What is the cardinal symptom of chronic pancreatitis?

- A. Reduced levels of faecal elastase
- B. Pain
- C. Steatorrhea
- D. Weight loss

2. Which of the following decreases during the natural course of the disease?

- A. Pain intensity
- B. Elevation of pancreatic enzymes
- C. Exocrine pancreatic function
- D. All the above

3. Which of the following is the biggest risk factor for the development of chronic pancreatitis?

- A. Alcohol abuse
- B. Abnormal anatomy
- C. Viral infection
- D. Gene mutations/polymorphisms

Answer

1. B, 2. D, 3. A

Methodological Instruction to Lesson № 11.

Propedeutics in pulmonology.

Hours: 6.

Working place: classroom, hospital wards.

Questions.

1. Structure of the bronchial tree.
2. Determination of the lungs border.

3. Structure of the respiratory segment (part) of the lung.
4. Comparative percussion of the lungs.
5. Blood supply of the lung.
6. Cough, its characteristics.
7. Structure of the bronchial mucous. Concept of bronchial clearance.
8. Rales and their characteristics.
9. Physiology of respiration.
10. What is vocal fremitus and method of its indication?
11. Show the spirogram schematically. What is the purpose of the spirogram?
12. Name kinds of dyspnoea.
13. What is forced expiration volume in 1 second (FEV1), forced vital capacity (FVC)?
14. Comparative percussion of the lungs.
15. What is this pneumotachometry?
16. Name main symptoms of respiratory diseases.
17. Name main groups of drugs in patients with respiratory diseases.

References.

1. Davidson's Principles and Practice of Medicine. Edition 23-st The Editors: Nicki R. Colledge, Brian R. Walker, Stuart H. Ralston. – 2016.
2. Goldman-Cecil medicine / [edited by] Lee Goldman, Andrew I. Schafer. – 25-th edition. Copyright 2016. Vol.I.
3. Rao, R. Suster, Saul Moran, Cesar. Pulmonary Pathology. – DemosMedical, 2014.
4. Internal Medicine: in 2 books. Book 1. Diseases of the Cardiovascular and Respiratory Systems: textbook / N.M. Seredyuk, I.P. Vakaliuk, R.I. Yatsyshyn et al. 2019p. «Medicine» - 664 p.

Methodological Instruction to Lesson № 12.

Chronic obstructive pulmonary disease.

Hours: 4.

Working place: classroom, hospital wards.

Questions.

1. Give the definition of COPD.
2. Etiology of COPD. Give external and internal risk factors of COPD.
3. Pathogenesis of COPD. What reflects airflow limitation.
4. Pathology of COPD.
5. Clinical symptoms of COPD.
6. Name co-morbidities in patients with COPD.
7. Physical findings of patients with COPD.
8. X-Ray findings of patients with COPD.
9. Studing of external respiration functions. Spirometry.
10. Clinical and functional monitoring.

11. Give the classification of COPD.
12. Name main treatment principles of patients with COPD.
13. Name drug, which are used in treatment of patients with COPD.
14. Name the pharmacotherapy for patients with COPD depending on the level of gravity of the disease.
15. Role of glucocorticosteroids in treatment of patients with COPD.
16. Name the other pharmacological treatment of patients with COPD.
17. Rehabilitation of patients with COPD.
18. Name the reasons exacerbations of COPD.
19. Algorithm of managing exacerbation of COPD in the outpatient setting.
20. Name the indications for hospitalisation in case of exacerbation of COPD.
21. Name the indications to antibacterial therapy. What is influenced on choosing antibacterial therapy.
22. Name antibacterial therapy of patients with COPD.

Examples of tests "COPD"

1. What is the most important cause of COPD?

- A. exposure to dusty or polluted air
- B. alpha1- antitrypsin deficiency
- C. cigarette smoking
- D. familial predisposition

2. Chronic cough, which characterised COPD, is:

- A. cough precedes dyspnea
- B. cough is parallel to dyspnea
- C. cough after marked dyspnea
- D. there are no defined law

3. Inhalation β_2 - agonists of short – term action are the following drugs, except:

- A. Salbutamol
- B. Fenoterol
- C. Terbutalin
- D. Salmeterol

4. The main symptoms of the COPD are:

- A. abdominal pain and diarrhea, vomiting
- B. cough
- C. headache
- D. constipation

5. Differential diagnosis of the COPD with:

- A. Asthma
- B. Peritonitis
- C. Pnothorax
- D. appendicitis

Answers to the self-assessment:

1C, 2A, 3D, 4B, 5A,

References.

1. Davidson's Principles and Practice of Medicine. Edition 23-st The Editors: Nicki R. Colledge, Brian R. Walker, Stuart H. Ralston. – 2016. Goldman-Cecil medicine / [edited by] Lee Goldman, Andrew I. Schafer. – 25-th edition. Copyright 2016. Vol.I.
2. Rao, R. Suster, Saul Moran, Cesar. Pulmonary Pathology. – DemosMedical, 2014. Global Initiative for chronic obstructive lung disease (global strategy for the diagnosis, management and prevention of chronic obstructive lung disease). – 2018.
3. Management of COPD exacerbations: a European Respiratory Society/American Thoracic Society guideline/ Jadwiga A. Wedzicha and other. – 2017. – P. 1-16.
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5. Guidelines for the Diagnosis and Treatment of COPD
<https://www.infobooks.org/pdfview/727-guidelines-for-the-diagnosis-and-treatment-of-copd-chronic-obstructive-pulmonary-disease-the-japanese-respiratory-society/>

Methodological Instruction to Lesson № 13.

Bronchial Asthma.

Hours: 6.

Working place: classroom, hospital wards.

Questions.

1. Give the definition of bronchial asthma.
2. Name essential of diagnosis.
3. Name clinical symptoms of bronchial asthma.
4. What induces development the symptoms of bronchial asthma.
5. What characterizes the acute attack of bronchial asthma?
6. Name the criteria of respiratory function violence.
7. Give the clinical picture of classic allergic (atopic) bronchial asthma.
8. How is the studying of bronchi hyperreactivity carried out?
9. List the diagnostic tests, which are made at ambulatory-polyclinic stage.
10. Give the classification of bronchial asthma.
11. What is intermitting bronchial asthma?
12. What is mild persistent bronchial asthma?
13. What is permanent bronchial asthma of moderate severity?
14. What is severe permanent bronchial asthma?
15. For what purpose is conception “bronchial asthma control” introduced?
16. What is controlled course of bronchial asthma?
17. What is partially controlled course of bronchial asthma?
18. What is non-controlled course of bronchial asthma?
19. Laboratory findings in patient of bronchial asthma.
20. X-Ray findings in patient of bronchial asthma.
21. Name ways of medications introductions which use in treatment of patients with bronchial asthma.
22. Which is the main way of medications introductions which use in treatment of patients with bronchial asthma?

23. Name controlling medicines.
24. When can we prescribe glucocorticosteroids of system action?
25. Name glucocorticosteroids of system action.
26. How will we decrease the dosage of prednisolon?
27. Name inhalation glucocorticosteroids.
28. Name side effects of system and inhalation glucocorticosteroids.
29. Name preventive measures of inhalation glucocorticosteroids side effects.
30. What can you say about steps 1, 2, 3, 4 in treatment of patients with bronchial asthma?
31. What is steroid-sparing therapy?
32. Name steps for achievement and keeping up the control of bronchial asthma.
33. What can you say about cromons, methylxantines, leucotrien-modificator?
34. What can you say about β_2 -agonists of prolonged action and short-term action?
35. What can you say about symptomatic therapy?
36. What will you do if control of the disease is achieved for a period of 3 months?
37. What is the duration of controlling therapy?
38. What is bronchial asthma exacerbation and its stages?
39. Where may be treated patients with mild and moderate severity and severe bronchial asthma?
40. Name treatment in the ambulatory stage.
41. What is complete response on therapy?
42. What will you do if the patient gives non-complete response?
43. Name treatment of patients with severe exacerbation of bronchial asthma.

Examples of tests " bronchial asthma"

- 1. Clinical symptoms of bronchial asthma are usually connected with spread but various bronchiobstruction which is:**
 - A. partially reversible by bronchodilator therapy
 - B. the impairment of lung function is largely fixed
 - C. reversible spontaneously or under treatment
 - D. non-reversible under treatment
 - E.
- 2. Clinical symptoms of bronchial asthma are, except:**
 - A. cough with purulent sputum
 - B. episodic breathlessness with laboured exhalation
 - C. cough with expectoration of tenacious mucoid sputum more at night and physical loading
 - D. episodic wheezes in lungs
 - E.
- 3. Laboratory findings are characterized by, except:**
 - A. sputum is characteristically tenacious and mucoid
 - B. sputum is characteristically purulent
 - C. sputum contains "plugs" and "spirals"
 - D. eosinophils are seen microscopically

Answers to the self-assessment:

1- C, 2-A, 3-B

References.

1. Davidson's Principles and Practice of Medicine. Edition 23-st The Editors: Nicki R. Colledge, Brian R. Walker, Stuart H. Ralston. – 2016.
2. Goldman-Cecil medicine / [edited by] Lee Goldman, Andrew I. Schafer. – 25-th edition. Copyright 2016. Vol.I.
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5. Global Initiative for Asthma. GINA, Updated 2019, <https://ginasthma.org/>.

Methodological Instruction to Lesson № 14.

Pneumonia.

Hours: 4.

Working place: classroom, hospital wards.

Questions.

1. Give the definition of community-acquired pneumonia.
2. Give the classification of community-acquired pneumonia.
3. Give the main causative agents of community-acquired and nosocomial pneumonia.
4. Give the pathogenesis of lobar pneumonia.
5. Clinical manifestation of pneumonia.
6. What are the changes of the laboratory induces in pneumonia.
7. Radiological examination of the patient with pneumonia.
8. Characteristic of the first and second group of patients with community-acquired pneumonia.
9. Antibiotic treatment of the first and second group of patients with community-acquired pneumonia.
10. Characteristic of the third and fourth group of patients with community-acquired pneumonia.
11. Antibiotic treatment of the third and fourth group of patients with community-acquired pneumonia.
12. Give the classification of pneumonia by gravity.
13. Name small and big criteria's of severe gravity pneumonia.
14. Give the definition and diagnostic criteria's of nosocomial pneumonia.

References.

1. Davidson's Principles and Practice of Medicine. Edition 23-st The Editors: Nicki R. Colledge, Brian R. Walker, Stuart H. Ralston. – 2016.
2. Goldman-Cecil medicine / [edited by] Lee Goldman, Andrew I. Schafer. – 25-th edition. Copyright 2016. Vol.I.
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Methodological Instruction to Lesson № 15.

Pleuritis.

Hours: 6.

Working place: classroom, hospital wards.

Questions.

1. Name definition of pleuritis.
2. Essential of diagnosis in patients with pleural effusion.
3. Name major types of pleural effusion.
4. Name differences between transudates and exudates.
5. Name causes of pleural fluid transudates.
6. Name causes of pleural fluid exudates.
7. Clinical symptoms in patients with dry pleuritis.
8. Clinical symptoms in patients with pleural effusion.
9. Which diagnostic investigations will you prescribe to patients with pleuritis?
10. How will you confirm the diagnosis pleuritis?
11. Name treatment in patients with pleuritis.
12. Name prognosis in patients with pleuritis.

Examples of tests "Pleuritis"

1. What is one of the causes of pleurisy?

- A. appendicitis
- B. ectopy of aorta
- C. myocardial infarction
- D. atherosclerosis

2. What referration of the pain is typical for irritation of the central portion of the diaphragmatic pleura?

- A. Middle part of abdomen
- B. Neck and shoulder
- C. Head
- D. arm

3. The most typical symptoms of pleurisy are:

- A. Pleuritic pain, shallow breathing, coughing
- B. Pleuritic pain, dizziness, tachicardia
- C. High temperature, vomiting, obstipation
- D. Low temperature, sweating

4. Diseases that can simulate pleuritis are:

- A. Chronic hepatitis
- B. Pericarditis
- C. Thyroiditis
- D. Pancreatitis

5. What method of diagnostics is the most helpful in differentiating of pleurisy with acute inflammatory abdominal disease?

- A. General blood analyses
- B. Computer tomography
- C. X-ray
- D. Thermography

Answers:

1. C) 2. B) 3. A) 4. B) 5. C)

References.

1. Davidson's Principles and Practice of Medicine. Edition 23-st The Editors: Nicki R. Colledge, Brian R. Walker, Stuart H. Ralston. – 2016.
2. Goldman-Cecil medicine / [edited by] Lee Goldman, Andrew I. Schafer. – 25-th edition. Copyright 2016. Vol.I.
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Methodological Instruction to Lesson № 16.

Pyogenic lung diseases.

Hours: 4.

Working place: classroom, hospital wards.

Questions.

1. Name essentials of diagnosis of lung abscess.
2. Main causes of lung abscess.
3. Name possible causes when bronchial obstruction may occur.
4. Name possible microorganisms which may cause an abscess.
5. Clinical findings in patients with lung abscess.
6. When can we say about chronic abscess?
7. Name laboratory findings in patients with lung abscess.
8. When smears and cultures for the tuberculi bacilli are especially required?
9. Name changes in X-Ray findings/

10. Name differential diagnosis in patients with lung abscess.
11. When can we start treatment in patients with lung abscess.
12. Name treatment in patients with lung abscess.
13. Name complications in patients with lung abscess.
14. Name essential of diagnosis of bronchiectasis.
15. What is bronchiectasis?
16. Name causes of bronchiectasis.
17. When does bronchiectasis often begin?
18. Clinical findings in patients with bronchiectasis.
19. Name laboratory findings in patients with bronchiectasis.
20. Name X-Ray findings in patients with bronchiectasis.
21. What can see in bronchogram?
22. Name the differential diagnosis in patients with bronchiectasis.
23. How can we confirm bronchiectasis?
24. Name complications of bronchiectasis.
25. What is postural drainage?
26. What will you do if respiratory infection is add?
27. Name indications to surgery.

Examples of tests " Pyogenic lung diseases "

- 1. How can you confirm bronchiectasis?**
 - A. Bronchographic examination
 - B. X-Ray examination
 - C. Laboratory findings
 - D. Clinical findings

- 2. Dosing regimen of Amoxicillin|clavulanic acid:**
 - A. 1,0g 8-12 hourly i.v
 - B. 1,2g 8-12 hourly i.v
 - C. 1,4g 8-12 hourly i.v
 - D. 1,6g 8-12 hourly i.v
 - E.

- 3. Main way of medicine introduction for abscess is:**
 - A. Orally
 - B. Intramuscular
 - C. Intravenous
 - D. Aerosol

- 4. What does Kartageners syndrom include, except:**
 - A. Sinusitis
 - B. Situs in versus
 - C. Bronchiectasis
 - D. Osteoporosis
 - E. All named above

Answers to tests:

1. A 2. B 3. 4. C 5. D

References.

1. Davidson's Principles and Practice of Medicine. Edition 23-st The Editors: Nicki R.

- Colledge, Brian R. Walker, Stuart H. Ralston. – 2016.
2. Goldman-Cecil medicine / [edited by] Lee Goldman, Andrew I. Schafer. – 25-th edition. Copyright 2016. Vol.I. Internal Medicine: in 2 books. Book 1. Diseases of the Cardiovascular and Respiratory Systems: textbook / N.M. Seredyuk, I.P. Vakaliuk, R.I. Yatsyshyn et al. 2019p. «Medicine» - 664 p.

Methodological Instruction to Lesson № 17.

Anemias.

Hours: 6.

Working place: classroom, hospital wards.

Questions.

1. To give definition of the term “Anemias”
2. Physiology of erythropoiesis and iron metabolism in organism.
3. Classifications of anemias.
4. Etiology and pathogenesis of IDA.
5. Clinic of IDA.
6. The laboratory diagnostic of IDA.
7. Diagnostic criteria of IDA.
8. Treatment of IDA.
9. Preparations of iron. Their doses and circuits of use.
10. What is indication for iron transfusion.
11. Preventive maintenance of IDA.
12. To give definition of the term “B12 and folate deficiency anemias”
13. Etiology and pathogenesis of B12 and folate deficiency anemias.
14. Clinic of B12 and folate deficiency anemias.
15. Change of nervous system at these anemias.
16. The laboratory and instrumental diagnostic at these anemias.
17. Diagnostic criteria of B12 and folate deficiency anemias.
18. Treatment of B12 and folate deficiency anemias.
19. Features of treatment at changes of nervous system.
20. Criterion efficiency of treatment of B12 and folate deficiency anemias.
21. Preventive maintenance of B12 and folate deficiency anemias.
22. Clinic, Diagnostic and Treatment of megaloblastic anemias.
23. Concept of haemolytic and aplastic anemias
24. Etiology and pathogenesis of haemolytic anemias.
25. Classifications of inherent and acquired of haemolytic anemias.
26. Clinic of Thalassemias, Favism, hereditary spherocytosis (Minkowsky-Chauffard’s disease).
27. Clinic of acquired of haemolytic anemias.
28. The laboratory diagnostic of haemolytic anemias.
29. Clinic and Diagnostic of Hemoglobinopathies: Paroxysmal nocturnal hemoglobinuria, Sickle cell anemia.
30. Treatment of haemolytic anemias and their preventive maintenance.

31. Etiology and pathogenesis of aplastic anemias
32. Clinic and complications of aplastic anemias.
33. The laboratory diagnostic of aplastic anemias.
34. Diagnostic criteria of haemolytic and aplastic anemias.
35. Differential diagnostics of haemolytic and aplastic anemias.
36. Treatment of aplastic anemias and their preventive maintenance.
37. The indications to transplantation of bone marrow.

Examples of tests

1. Name daily requirement of vitamin B 12:

- A. 1 – 3 µkg
- B. 2 – 7 µkg
- C. 15 – 20 µkg
- D. 30 – 50 µkg

2. Where the normal physiology absorption of vitamin B 12 may occur?

- A. in the stomach
- B. in the duodenum
- C. in the jejunem
- D. in the terminal ileum

3. Name daily requirement of folate:

- A. 100 µkg
- B. 300 µkg
- C. 500 µkg
- D. 700 µkg

4. Name systems that may disturb in patients with vitamin B 12 deficiency anaemia:

- A. hematopoietic system
- B. respiratory system
- C. nervous system
- D. digestive system

Answers:

1. B 2. D 3. A 4. A, C, D

References.

1. Goldman-Cecil medicine / [edited by] Lee Goldman, Andrew I. Schafer. – 25-th edition. Copyright 2016. Vol.I.
2. HEMATOLOGY: Basic Principles and Practice 6-th edition Ronald Hoffman Edward J. Benz, Jr. Leslie E. Silberstein [et all.]. Copyright © 2013 by Saunders, an imprint of Elsevier Inc.
3. Dacie and Lewis Practical Haematology Barbara J. Brain, Imelda Bates, Michael A. Laffan Twelfth edition. Elsevier. 2017.
4. Vynnychenko L.B Internal Medicine: Hematology: study guide / L. B. Vynnychenko, L. N. Prystupa, O. M. Chernatska ; under the editorship of V.F. Orlovsky, N.V. Demikhova. – Sumy : Sumy State University, 2019. – 136 p.

5. A Laboratory Guide to Clinical Hematology [Электронный ресурс] / V. Villatoro, M. To <https://www.infobooks.org/pdfview/726-essentialpractical-skills-in-internal-medicine-professor-tetyana-pertseva/>

Methodological Instruction to Lesson № 18.

Acute and chronic leukemias.

Hours: 4.

Working place: classroom, hospital wards.

Questions.

1. To give definition of the term “HEMOBLASTOSIS”
2. Classifications of HEMOBLASTOSIS.
3. To give definition of the term “Acute leucosis (Acute Leukemias)” (AL).
4. Classifications of AL.
5. Etiology and pathogenesis of AL.
6. To list basic clinical syndromes at AL.
7. Laboratory diagnostic of AL.
8. Diagnostic criteria and Differential diagnostics of AL.
9. Treatment of AL.
10. That is complete remission of AL.
11. Diagnostic, Clinic and Treatment of hematosarcoma.
12. Classifications of myeloproliferative disease.
13. Diagnostic criteria of Chronic Myelocytic.
14. Treatment of Chronic Myelocytic.
15. Diagnostic criteria of Polycythemia.
16. Diagnostic, Clinic and Treatment of Myelofibrosis (Agnogenic Myeloid Metaplasia; Myelofibrosis with Myeloid Metaplasia).
17. Etiology and pathogenesis of Chronic Lymphocytic.
18. Laboratory diagnostic of Chronic Lymphocytic.
19. Diagnostic criteria and Differential diagnostics of Chronic Lymphocytic.
20. Differential diagnostics of Chronic leukemia and hematosarcomas.
21. Treatment of Chronic Lymphocytic.
22. To give definition of the term “leukemoid reaction”.
23. Tape of leukemoid reaction and Differential diagnostics with AL.
24. Treatment of leukemoid reaction.

Examples of tests

1. Name etiology factors of leukaemias:

- A. exposure to ionizing radiation
- B. viral infection
- C. chromosomal translocation
- D. all named above

2. In which age could you mostly see acute lymphocytic leukaemia?

- A. in childhood
- B. in young adults
- C. in the middle age
- D. in old age

3. Name main cells in CBC you can see in patients with acute leukaemia:

- A. prolymphocytes
- B. plasmocytes
- C. blasts
- D. lymphocytes

4. Name the goal of treatment in patients with acute leukaemia:

- A. normal hematopoiesis with less than 20 % blast cells
- B. normal hematopoiesis with less than 15 % blast cells
- C. normal hematopoiesis with less than 10 % blast cells
- D. normal hematopoiesis with less than 5 % blast cells

Answers to tests:

1. D, 2. A, 3. C, 4. D

References.

1. Goldman-Cecil medicine / [edited by] Lee Goldman, Andrew I. Schafer. – 25-th edition. Copyright 2016. Vol.I.
2. HEMATOLOGY: Basic Principles and Practice 6-th edition Ronald Hoffman Edward J. Benz, Jr. Leslie E. Silberstein [et all.]. Copyright © 2013 by Saunders, an imprint of Elsevier Inc.
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Methodological Instruction to Lesson № 19.

Multiple myeloma. Lymphomas

Hours: 6.

Working place: classroom, hospital wards.

Questions.

1. To give definition of the term “Multiple myeloma” (MM).
2. Etiology and pathogenesis of MM.
3. Clinic of MM.
4. Laboratory and instrumental diagnostic of MM.
5. Stage of MM.

6. Diagnostic criteria and MM.
7. Differential diagnostics of MM with Waldenström's Macroglobulinemia.
8. Treatment of MM.
9. The basic preparations for treatment of MM.
10. Radial therapy of MM.

Examples of tests " Multiple myeloma. Lymphomas"

1. What is this multiple myeloma?

- A. the lymphomas
- B. the paraproteinaemias
- C. the leukaemias
- D. the haemolytic anaemia

2. Multiple myeloma is malignant proliferation of which cells in bone marrow?

- A. Lymphocytes
- B. Monocytes
- C. Basophiles
- D. Plasmatic cells

3. Name laboratory changes of Multiple myeloma asymptomatic stage.

- A. increased ESR, leucocytosis, trombocytopenia
- B. increased ESR, M-protein, proteinuria
- C. never changes
- D. leucocytosis, anaemia

4. Which symptoms will be present in case of effected bones in patients with Multiple myeloma?

- A. Bone pain
- B. neoplasm
- C. Fracture
- D. All named above

5. What could you see on bone marrow aspirate or trephine biopsy?

- A. Leucocytes infiltration
- B. Plasma cell infiltration
- C. T-lymphocyte infiltration
- D. B- lymphocyte infiltration

Answers to tests:

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

References.

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Methodological Instruction to Lesson № 20.

Bleeding Disorder (Hemorrhagic diathesis)

Hours: 4.

Working place: classroom, hospital wards.

Questions.

1. To give definition of the term “Hemorrhagic diathesis” (HD).
2. Classification of HD.
3. Homeostasis system and its physiology.
4. Types of a bleeding at HD.
5. Diagnostic criteria of Hemophilia.
6. Treatment and preventive maintenance of Hemophilia.
7. Diagnostic criteria of Willebrand's Disease.
8. Diagnostic criteria of Thrombocytopenic purpura.
9. Treatment of Werlhof's disease.
10. Diagnostic criteria of Thrombocytopathy and Glanzmann's disease.
11. Variants of hemorrhagic vasculitis and clinic depending on variant of illness.
12. Differential diagnostics of hemorrhagic vasculitis.
13. Diagnostic criteria of Rendu-Osler-Weber Syndrome.

Examples of tests

1. The hemorrhagic diathesis which are caused by changes of abnormal blood vessels is all but one:

Henoch-Schönlein Purpura

- A. Hemorrhagic vasculitis
- B. Rendu-Osler-Weber Syndrome
- C. Willebrand's Disease
- D. Hemangioma

2. The hematomic type of hemorrhagic is at:

- A. Hemorrhagic vasculitis
- B. Hemophilia
- C. Werlhof's disease
- D. Glanzmann's disease

3. The petechialic type of hemorrhagic is at:

- A. Thrombocytopenic and thrombocytopathy
- B. Hemophilia
- C. Rendu-Osler-Weber Syndrome
- D. Werlhof's disease
- E. Hemorrhagic vasculitis

4. The patient 35 years during 5 years has nasal bleeding, ecchymosis on a skin. Two weeks back after nasal of a bleeding there was a weakness, faint. The patient has pallor, ecchymosis on a skin. The analysis of blood: er. – $4.2 \cdot 10^{12}/l$, Hb – 90 g/l, chromatic parameter – 0.7, L. – $6.4 \cdot 10^9/l$, stab n.- 3%, seg. – 67%, e. – 2%, l. – 23%, m – 5%, thrombocytes – $10 \cdot 10^9/l$, ESR – 15mm/ hour. With is diagnosis at the patient?

- A. Aplastic anemia
- B. Iron deficiency Anemias
- C. Hemorrhagic vasculitis
- D. Thrombocytopenic purpura
- E. Hemophilia

Answers:

1.C , 2.B , 3.C , 4. D

References.

1. Goldman-Cecil medicine / [edited by] Lee Goldman, Andrew I. Schafer. – 25-th edition. Copyright 2016. Vol.I.
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6. Guidelines for management of haemophilia 2nd edition. Blackwell Publishing Ltd., 2012.
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