

Internal medicine 6th year final archive

21/5/2025

Nephrology

1. What is the most common cause of acute kidney injury?
 - a. Dehydration
 - b. Acute interstitial nephritis
 - c. Glomerulonephritis
2. Which of the following is NOT a poor prognostic indicator in glomerular diseases?
 - a. Persistent hypertension
 - b. Elderly
 - c. Elevated serum creatinine at diagnosis
 - d. Female gender
 - e. Heavy proteinuria (>3.5 g/day)
3. Which of the following is a symptom of renal disease?
 - a. Chest pain
 - b. Hypertension
 - c. Diarrhea
4. Which of the following statements about nephrotic syndrome is incorrect?
 - a. The cause of nephrotic syndrome is primarily in the glomerulus
 - b. Proteinuria of > 3.5 g/24 hours is characteristic of nephrotic syndrome
 - c. Nephrotic syndrome results in edema and hypoalbuminemia
 - d. Renal biopsy is rarely involved in the investigation of nephrotic syndrome
 - e. Hyperlipidemia is often associated with nephrotic syndrome
5. Which of the following is least likely to be considered an adverse effect of thiazide?
 - a. Hypokalemia
 - b. Hyponatremia
 - c. Pseudogout
 - d. Impotence

6. What is the normal range of GFR in a healthy person?
 - a. 200-300
 - b. 10-30
 - c. 90-120
 - d. More than 800
7. Which of the following is not typically filtered by the kidneys under normal conditions?
 - a. Sodium
 - b. Glucose
 - c. Urea
 - d. Protein
 - e. Water
8. Which of the following statements about Minimal Change Disease (MCD) is false?
 - a. Responds well to corticosteroids
 - b. The most common cause of nephrotic syndrome in children
 - c. Characterized by irreversible podocyte damage
 - d. Presents with selective proteinuria (mainly albumin loss)
9. What hormone is primarily responsible for regulating body fluid balance by controlling urine production?
 - a. Aldosterone
 - b. Thyroid hormone
 - c. Antidiuretic hormone (ADH)
 - d. Cortisol
 - e. Parathyroid hormone (PTH)
10. Which of the following is NOT a contraindication to performing a kidney biopsy?
 - a. Severe bleeding diathesis
 - b. Uncontrolled hypertension
 - c. Transplanted kidney
 - d. Solitary kidney
 - e. Small kidney

11. You are seeing a 60-year-old male for the first time, presented with blood pressure readings of 168/106 with similar readings on 3 different occasions, there is no evidence of end-organ damage, and he has no comorbidities. What is your initial management?

- a. Give hydrochlorothiazide 25mg
- b. Initiate ACE inhibitors**
- c. Reassurance
- d. IV furosemide

12. What is inflammation of the glomeruli called?

- a. Nephrotic syndrome
- b. Minimal change
- c. Glomerulonephritis**

Hematology

13. Which of the following is NOT a cause of iron deficiency anemia?

- a. Decreased oral intake of iron
- b. Increased oral intake of iron absorption inhibitors
- c. Anemia of chronic disease**
- d. Hookworm infestation
- e. Chronic blood loss

14. Which of the following findings is most consistent with anemia of chronic disease (ACD)?

- a. High hepcidin**
- b. Low ferritin
- c. High TIBC

15. A 20-year-old male had recurrent nose bleeds and bleeding gums since childhood, with evidence of multiple bruises on his skin. Bleeding time and activated partial prothrombin time was elevated, but the platelet count was normal. What is the most likely diagnosis?

- a. Von Willebrand disease**
- b. Hemophilia A
- c. ITP

16. Splenomegaly is present in all of the following except?

- a. Sickle cell anemia**
- b. EBV
- c. Typhoid
- d. Brucellosis

17. A female presents with hemoptysis, pleuritic pain, and shortness of breath. She has a history of 3 miscarriages and a prior DVT. What is the most likely diagnosis?

- a. Antiphospholipid syndrome
- b. SLE

18. Which of the following is NOT considered a standard treatment option for immune thrombocytopenic purpura (ITP)?

- a. Corticosteroids
- b. IVIG
- c. Splenectomy
- d. Azathioprine
- e. Plasmapheresis

19. What is the mechanism of action of aspirin?

- a. Blocks ADP receptors on platelets
- b. Inhibits thromboxane A₂ synthesis
- c. Enhances fibrinolysis by increasing plasminogen activation
- d. Directly inhibits thrombin activity

20. Which of the following is false in iron deficiency anemia?

- a. Low serum ferritin
- b. High soluble transferrin receptors
- c. Low serum iron
- d. Low Red Cell Distribution Width (RDW)
- e. Increased total iron-binding capacity (TIBC)

21. Which of the following is not true about pernicious anemia?

- a. Treated with oral vitamin B₁₂
- b. It is an autoimmune disease

22. Which of the following is incorrect regarding ITP?

- a. Investigations show prolonged PT and PTT

23. A woman who is at the 9th week of gestation presents with DVT. What is the most suitable treatment for her condition throughout her pregnancy?

- a. Warfarin
- b. Unfractionated heparin
- c. Low molecular weight heparin

24. Which of the following is correct regarding warfarin?

- a. Can be given safely during pregnancy
- b. Monitored by PTT
- c. Works by inhibiting the activation of factors 10, 9, 7, and 2
- d. Does not inhibit protein C
- e. It is contraindicated if the mother is breastfeeding

Endocrine

25. Which of the following confirms the diagnosis of DM?

- a. HbA1c percent 6.5
- b. Random blood glucose 140 without symptoms
- c. Fasting blood glucose 130, and 2-hour OGTT 210

26. Which of the following is not correctly matched regarding antidiabetic drugs?

- a. Metformin □ vitamin B12 def
- b. Glibenclamide □ Hypoglycemia
- c. Empagliflozine □ UTI
- d. Sitagliptin □ Pancreatitis
- e. Pioglitazone □ Fatty liver

27. Which of the following is not a feature of hyperosmolar hyperglycemic coma?

- a. Blood glucose >600
- b. pH > 7.3
- c. bicarbonate less than 15-18
- d. Osmolarity >320
- e. Minimal ketones

28. All of the following thyroid hormone profiles are correctly matched with their corresponding diagnoses EXCEPT:

- a. High TSH, low T4 □ Primary hypothyroidism
- b. Low TSH, high T4 □ Graves' disease
- c. High TSH, normal T4/T3 □ TSH-secreting adenoma

29. A 65-year-old male presents with 2 months of sweating, palpitations, and weight loss. A physical exam revealed mild lid retraction, lid lag, and a small diffuse goiter. Laboratory results show: ↑ Free T3. ↑ Free T4. ↑ TSH. What is the next best diagnostic step?

- a. Thyroid ultrasound
- b. Radioactive iodine uptake scan
- c. Pituitary MRI
- d. Thyroid peroxidase antibodies
- e. Thyroid fine-needle aspiration

30. All the following are true about hypopituitarism except

- a. The first hormone to be affected is growth hormone
- b. Hormone stimulation tests are used to diagnose disorders of GH and ACTH
- c. Morning levels of hormones are used for diagnosis
- d. Autoimmune hypopituitarism is the most common cause

31. A man comes to the ER with hypoglycemia and hypotension, he has a 3-day history of cough and shortness of breath, and he is febrile. If an adrenal crisis is suspected. Which of the following is not part of the initial management?

- a. IV fluids
- b. Hydrocortisone
- c. Fludrocortisone
- d. Dextrose
- e. IV Antibiotics

32. A 19-year-old presents with tremors, heat intolerance, weight loss despite voracious appetite, and diarrhea. On physical examination, she has lid lag, exophthalmos, and a goiter over which a bruit is heard. TSH is suppressed, and free T3 and T4 are elevated. What is the most appropriate next step?

- a. Start treatment with carbimazole
- b. Order a radioiodine uptake scan
- c. Give beta blockers for symptoms and reassess after 3 months
- d. Order thyroid antibodies

33. Which of the following is incorrect regarding Cushing syndrome?

- a. 8:00 am serum cortisol level is used for initial screening
- b. Failure to suppress after CRH administration is indicative of ectopic ACTH
- c. Suppression after a high dose of dexamethasone is suggestive of Cushing's disease
- d. Pseudo Cushing is characterized by no suppression after a low-dose dexamethasone suppression test (not sure the statement was exactly like this)

34. A 55-year-old male presents with 3 months of polyuria, polydipsia, and episodic abdominal pain. Laboratory findings show: Serum calcium: 12.8 mg/dL, Phosphate: 2.1 mg/dL, PTH: 35 pg/mL (normal range 10-65), PTHrP: negative. What is the most likely cause of hypercalcemia?

- a. Primary hyperparathyroidism
- b. Malignancy (PTHrP-secreting tumor)
- c. Milk-alkali syndrome
- d. Vitamin D intoxication
- e. Sarcoidosis

35. A pregnant lady was found to have a TSH level of 7 and normal T3, T4. What would be the indication to start levothyroxine treatment in her case?

- a. TSH level
- b. Pregnancy

Rheumatology

36. A young adult male has a history of recurrent genital and oral ulcers. He presents to the ER with a painful red eye and hemoptysis, ESR is elevated. What is the most appropriate next step?

- a. Administer immediate anticoagulation
- b. Administer high-dose corticosteroids
- c. CT angiography
- d. Refer to ophthalmology

37. An elderly female presents with bilateral shoulder and hip pain, ESR is 105, what is the most likely diagnosis?

- a. Polymyalgia rheumatica
- b. Fibromyalgia
- c. Rheumatoid arthritis

38. A female presents with lethargy and weakness, she has a positive ANA with titer 1:1084, elevated CPK, and antibodies to ribonucleoprotein were detected. But Rheumatoid factor, anti-Ro, anti-La, and anti-Scl were all negative. What is the most likely diagnosis?

- a. Polymyalgia rheumatica
- b. Mixed connective tissue disease
- c. Polymyositis

39. A male has a history of nose bleeds and chronic sinusitis, she recently noticed a nasal deformity (the case generally indicates Wegner)... What is incorrect about his condition?

- a. The most likely antibodies to be detected are MPO ANCA

40. What is incorrect about Wegner?

- a. PR3 and c-ANCA are positive
- b. ANCA levels correlate with severity
- c. ANCA levels can be used to monitor the response to treatment

41. A male presents with ankle pain and previously had episodes of pain in his left index and right wrist. Episodes of pain would be so severe that he couldn't get up from his bed in the morning. Rheumatoid factor and anti-CCP are negative. What is the most likely diagnosis?

- a. Gout
- b. Psoriatic arthritis
- c. Rheumatoid arthritis

42. A case with the typical presentation of rheumatoid arthritis (inflammation of metacarpophalangeal and interphalangeal joints), what is the most specific antibody for this case?

- a. ANA
- b. Anti-ds DNA
- c. Anti-smith
- d. Anti-CCP

43. Which of the following statements is INCORRECT?

- a. Juvenile idiopathic arthritis (JIA) is diagnosed in children before age 16
- b. Disseminated gonococcal infection most commonly occurs in young female adults
- c. Osteoarthritis and rheumatoid arthritis of the hands most commonly occur in middle-aged women
- d. Ankylosing spondylitis predominantly affects young males

44. Which of the following is incorrect about viral arthritis?

- a. Parvovirus-associated arthritis is a *chronic* arthritis that resembles rheumatoid arthritis
- b. Rheumatoid factor is positive in 80% of HCV-arthritis
- c. The immunological syndrome of Hepatitis B consists of rash and arthritis
- d. Arthritis can occur early in the course of HIV
- e. Pseudogout affects males between the ages of 50 and 60

45. A male presents with chronic back pain that improves with physical activity.

Which of the following is incorrect about this case?

- a. HLA-B27 is helpful in diagnosis
- b. There is a risk of uveitis
- c. Peripheral arthritis in this disease is symmetrical and polyarticular

Cardiology

46. A 70-year-old woman lost consciousness while exercising, she has occasional chest pain and dyspnea. On auscultation, there is grade III/IV delayed crescendo-decrescendo murmur that is best heard at the right upper sternal border, carotid pulse is weak. What is the most likely diagnosis?

- a. Aortic stenosis

47. A 60-year-old woman with a family history of coronary artery disease presents with chest pain that is heavy in nature. Troponin is negative, but ECG shows 2mm ST segment elevation in leads II, III, and aVF. What is the most appropriate next step?

- a. Discharge
- b. Fibrinolysis
- c. Admission only if pain persists
- d. Administer Morphine, Oxygen, and nitrate
- e. Repeat troponin

48. Which of the following is an indication for thrombolytic agents?

- a. New onset LBBB
- b. New onset RBBB
- c. T wave inversion in chest leads
- d. ST depression in all chest leads

49. Absolute contraindications for thrombolytic agents?

- a. Left-sided hemiparesis from 1 month
- b. Diabetic retinopathy
- c. Prolonged CPR for 5 minutes

50. One of the following is not part of the treatment plan in dilated cardiomyopathy?

- a. Salt and water restriction
- b. Beta blocker
- c. ACE inhibitors
- d. Diuretic
- e. Complete bed rest

51. All of the following are causes of pericarditis except?

- a. SLE
- b. Uremia
- c. Lymphoma
- d. COPD

52. Which of the following is not part of the diagnostic workup for a patient with newly diagnosed hypertension?

- a. Urine analysis
- b. ECG
- c. Brain natriuretic peptide

53. A 70-year-old female with chest pain, negative cardiac enzymes, and no changes on ECG, what is the most appropriate next step?

- a. Discharge
- b. Admit for monitoring of troponin and ECG

54. A young female patient has narrow, regular complexes on ECG and persistent palpitation despite the Valsalva maneuver and 6 mg of adenosine. Her pulse is 160, but all other vitals are normal. What is the most appropriate next step?

- a. Administer 12 mg of adenosine
- b. Synchronized electrical cardioversion
- c. IV amiodarone

55. An elderly female presents with atrial fibrillation and rapid ventricular response (heart rate 180), she is hypotensive. What is the best next step in management?
- Beta blockers
 - Anticoagulants
 - Amiodarone
 - Cardioversion**
56. A 60-year-old female who has untreated HTN, DM, and breast cancer visited the primary health care clinic complaining of SOB for 2 months. By physical examination, normal breath sounds, no cardiac murmur, but heart sounds are distant. X-ray revealed a large heart. What is the most likely diagnosis?
- Congestive heart failure
 - Pericardial effusion**
57. A 27-year-old female has chest pain, which was preceded by a viral illness 2 weeks ago. Physical examination revealed bibasilar crackles. ECG showed non-specific ST-T changes in all leads. By echocardiogram, hypokinetic and dilated chambers. What is the most likely diagnosis?
- Myocarditis**
 - STEMI
 - Pericarditis
58. Radiofemoral delay is characteristic of?
- Aortic stenosis
 - Coarctation of the aorta**
59. A patient has a holosystolic murmur that is best heard on the 5th intercostal space on the left sternal border and intensifies with inspiration, with prominent JVP, most likely diagnosis?
- Mitral regurgitation
 - Tricuspid regurgitation**
 - Aortic stenosis
60. What is the infective organism and affected valve in infective endocarditis in IV drug users?
- Staphylococcus aureus, tricuspid valve**
61. Which of the following is the presentation of aortic stenosis?
- Exertional dyspnea and angina**

62. Which of the following is not a precipitating factor for digoxin toxicity?
- a. Hypokalemia
 - b. Hypocalcemia
 - c. Hypothyroidism
63. A man presents with sudden retrosternal chest pain that developed after lifting a heavy object, the pain radiates to the back and between the shoulders, he is sweating profusely, and is distressed but not nauseated. BP=160/100, and he is tachycardic. What is the most likely diagnosis?
- a. STEMI
 - b. Aortic dissection
 - c. Musculoskeletal pain
64. What is the target INR for a patient with mitral stenosis who has developed atrial fibrillation?
- a. 2-3

Respiratory

65. Which of the following is an indication to consider long-term oxygen therapy for a patient with COPD?
- a. FEV1 53%
 - b. Hb 18.5
 - c. FEV1/FVC 0.47
66. Which of the following interventions is most likely to improve mortality in patients with COPD?
- a. Oxygen therapy
 - b. Steroids
 - c. Smoking cessation
67. Which of the following is least likely to aid in the diagnosis of COPD?
- a. Chest X-ray
 - b. Spirometry
 - c. Full blood count
 - d. Peak expiratory flow

68. Which of the following is not used in an acute asthma attack?

- a. Ipratropium
- b. Oxygen
- c. Montelukast
- d. Magnesium sulphate
- e. Salbutamol

69. If a patient diagnosed with asthma still complains of shortness of breath after regularly using a beta agonist inhaler, what is the best next step?

- a. Inhaled corticosteroids

70. A 40-year-old man presents with shortness of breath, and auscultation reveals a wheezy chest. ABGs show $pO_2=71$, $pH=7.48$, $pCO_2=27$, $HCO_3=25$. What is the most likely diagnosis?

- a. Anxiety disorder
- b. Asthma attack

71. X-ray of a patient with sarcoidosis revealed bilateral hilar lymphadenopathy. What is the stage of this finding?

- a. Stage 0
- b. Stage 1
- c. Stage 2
- d. Stage 3

72. A female patient presents with polyarthrititis and low-grade fever; examination reveals erythematous lesions on her shins, which the patient reports to be painful. X-ray shows bilateral hilar lymphadenopathy. What is the most likely diagnosis?

- a. Loeffler syndrome
- b. Lofgren syndrome
- c. SLE

73. Which of these findings on pulmonary function test would be associated with severe kyphoscoliosis?

- a. Decreased FEV1/FVC ratio
- b. Increased total lung capacity
- c. Decreased vital capacity
- d. Increased vital capacity

74. A 40-year-old male who has a 25-pack-year smoking history presents with the following pulmonary function test findings: FEV1 = 1.7 (predicted 4.3), FVC = 2 (predicted 4.5), FEV1/FVC ratio > 82 (normal >75). What is the most likely diagnosis?

- a. Emphysema
- b. Chronic bronchitis
- c. Chronic obstructive pulmonary disease
- d. Kyphoscoliosis
- e. Laryngeal malignancy

75. Which of the following is incorrect regarding PE?

- a. Treated with heparin
- b. ECG shows q waves and ST segment elevation in leads II, III, and aVF

76. Which of the following is not considered a poor prognostic factor in Community-acquired pneumonia?

- a. Elevated C-reactive protein
- b. (The rest of the options were included in CURB-65)

77. A case of community-acquired pneumonia, which of the following would be considered a poor prognostic factor? (age was less than 65, blood pressure 106/68)

- a. Urea 8.6 mmol/l

78. A young adult who is an alcoholic presents with mild dyspnea and low-grade fever, X-ray revealed a cavitory lesion in the right upper lobe. What is the most likely causative organism?

- a. Legionella
- b. Strept pneumonia
- c. Staph. aureus
- d. Klebsiella pneumonia
- e. Mycoplasma pneumonia

79. A 60-year-old male has had shortness of breath for a long time, chest imaging reveals a fibrosed lung, and investigation reveals positive acid-fast bacilli stain. Exposure to which of the following would have predisposed him to TB?

- a. Coal dust
- b. White asbestos fibers
- c. Blue asbestos fibers
- d. Silica

80. A 40-year-old complains of copious yellow sputum and recurrent infections, he occasionally has hemoptysis. Which investigation would be most helpful in determining the pathology?

- a. Chest CT
- b. Bronchoscopy

81. All of the following characterize transudative pleural effusion except

- a. Pleural: serum albumin ratio <0.5
- b. Protein <3
- c. pH <7.2

82. Which of the following impairs glucose transport from blood to pleural fluid?

- a. TB
- b. Rheumatoid arthritis

Gastroenterology

83. Which of the following is most likely to be involved in ulcerative colitis?

- a. Sigmoid
- b. Rectum
- c. Ascending colon
- d. Descending colon
- e. Terminal ileum

84. A patient presenting with diarrhea and abdominal pain underwent a biopsy, which revealed deep inflammation from the submucosa to the lamina propria, and numerous granulomata. What is the most likely diagnosis?

- a. Crohn's disease
- b. Ulcerative colitis

85. Which of the following is incorrect regarding the treatment of Crohn's disease?

- a. Steroids are better than methotrexate for the maintenance of remission

86. A patient presented with indigestion, jejunal biopsy showed inflammation with macrophages containing PAS-stained granules. What is the most likely diagnosis?

- a. Bacterial overgrowth
- b. Tropical sprue
- c. Whipple disease
- d. Celiac

87. Which of the following is the first-line treatment for clinical ascites due to cirrhosis?

- a. Furosemide
- b. Spironolactone**
- c. Vasopressin

88. Which of the following is incorrect about hepatitis B?

- a. HBsAg is the initial screening test
- b. Antibodies to the HB e antigen reflect infectivity and disease activity**

89. Which of the following is not used for determining the prognosis of ascites?

- a. ALT**
- b. Bilirubin
- c. Encephalopathy
- d. PT

90. A patient who is a known case of alcoholic cirrhosis presents with frank hematemesis, rupture of esophageal varices is suspected, after resuscitation and IV terlipressin, what would be the most suitable management?

- a. TIPS
- b. Endoscopic variceal band ligation**
- c. Endoscopic clipping

91. A patient with hematemesis suspected to be due to varices is initially stabilized. What is the most suitable drug to give whilst awaiting endoscopy?

- a. IV terlipressin**
- b. PPI
- c. Propranolol

92. Which of the following is the most common cause of upper GI bleeding?

- a. Mallory-Weiss tear
- b. Esophageal varices**
- c. Gastric cancer
- d. Diverticulosis
- e. Polyps

93. Which of the following does not put a patient with upper GI bleeding at risk of mortality?

- a. Mallory-Weiss tear being the origin of bleeding**

94. If a patient is confirmed to have H. pylori infection, what combination of drugs is used for eradication?

- a. Lansoprazole + amoxicillin + metronidazole
- b. Lansoprazole + amoxicillin + Clarithromycin**
- c. Omeprazole + amoxicillin + Clindamycin

95. What is the best method to confirm eradication of H. pylori?

- a. Endoscopy
- b. Stool culture
- c. Urea breath test**
- d. Serology
- e. Hydrogen breath test

96. Autoimmune hepatitis is associated with the elevation of which antibody?

- a. IgA
- b. IgE
- c. IgD
- d. IgM
- e. IgG**

97. Which of the following is not considered an alarming sign in a patient with dyspepsia?

- a. Weight loss
- b. Dysphagia
- c. Iron deficiency anemia
- d. Failure of treatment after 6 months
- e. Previous gastric ulcer**

98. Which of the following best fits the criteria of irritable bowel syndrome?

- a. Abdominal pain and altered bowel habit for more than 12 weeks, associated with anxiety and depression, and normal blood tests**
- b. Abdominal pain and altered bowel habit for more than 12 weeks, with bloody diarrhea
- c. Abdominal pain or discomfort for more than 12 weeks, relieved by defecation

99. Which of the following is true about Celiac disease?

- a. It is associated with HLA-DQ2 and HLA-DQ8**

Infectious

100. What is the most likely opportunistic infection in HIV patients?
- a. Candidiasis
 - b. CMV
 - c. Tuberculosis
 - d. Pneumocystitis jirovecii