

# Test Bank

**Subject:**

**Internal Medicine-**

**018 Final**

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## Respiratory system

1-A 70-year-old smoker gentleman retired school principal, presented to the outpatient clinic with a history of chronic dry cough, his cough is associated with dyspnea on minimal exertion. He denies wheezes, chest pain, fever, anorexia, or weight loss. His drug history includes Insulin, Amlodipine, Hydrochlorothiazide, and Simvastatin. On physical examination there is finger clubbing, JVP is not raised, heart sounds are normal, on auscultation of the chest there is decreased bilateral vesicular breath sounds with fine end-inspiratory crackles, the next step in the management is:

- a. Spirometry with bronchodilator
- b. Full blood count
- c. Chest CT scan with contrast
- d. High-resolution chest CT
- e. Antinuclear antibody (ANA)

Answer: D

2-A 70-year-old patient presented to the clinic with severe constipation and fatigue for the last few weeks. He reports mild abdominal pain and dry cough. Also, he noticed some weight loss recently. He is an X-smoker who used to smoke 2packs/day for 30 years but quit 2 years ago. Physical examination was unremarkable except for dry mouth. His Calcium was 18mg/dL CXR and CT showed dense consolidation on the right upper lobe with hilar lymphadenopathy. What is the most likely diagnosis?

- a. Small cell lung cancer with SIADH
- b. Tuberculosis
- c. Primary hyperparathyroidism
- d. Squamous cell lung cancer
- e. Sarcoidosis

Answer: D

3-All of the following occupations are likely to be exposed to asbestos except:

- a. Plumbers
- b. Painters
- c. Thermal isolation
- d. Construction workers

Answer: B

4-A 58-year-old gentleman who is a former smoker presented to the clinic with progressive shortness of breath & dry cough of 6 months. Over the past week he can't walk across the room without getting short of breath. Physical examination is significant for bilateral basal coarse crackles & fingers clubbing. Chest x-ray shows diffuse bilateral infiltrates. What is the most likely diagnosis?

- a. Pneumonia

- b. Interstitial pulmonary fibrosis
- c. Bronchiectasis
- d. COPD
- e. Sarcoidosis

Answer: B

5-Which of the following is an indicator of severe asthma?

- a. Decreased PaCO<sub>2</sub>
- b. Hyperventilation
- c. Loud wheezes
- d. Decreased PaO<sub>2</sub>
- e. Silent chest

Answer: E

6-A 70-year-old man who works in a farm is present with cough and shortness of breath. He has mild hemoptysis. History of mild intermittent cough for more than 10 years is found in this patient. He has no other complains. X-ray shows hyperinflation of the chest. Which of the following is the most likely diagnosis?

- a. Hypersensitivity pneumonitis
- b. Lung cancer
- c. COPD exacerbation
- d. TB

Answer: C

7-Which of the following is true regarding asthma?

- a. The patient will have normal PFTs between attacks
- b. Mild intermittent asthma does not require management
- c. Bilateral wheezes indicate severe disease

Answer: A

8-A 45-year-old male, smoker, present with chronic cough and was diagnosed with COPD after proper investigations. He was advised to decrease number of daily cigarettes and was prescribed one inhaler. After doing so, the patient is still having some complaints in the next visit. What is the best next step in management that will improve the prognosis of the disease?

- a. Suggest lung transplant
- b. Recommend full smoking cessation
- c. Change the inhalers given to the patient
- d. Prescribe corticosteroids

Answer: B

9-All of the following indicate uncomplicated parapneumonic effusion except:

- a. Low effusion fluid LDH
- b. Low effusion fluid protein
- c. Positive culture of the effusion fluid
- d. Normal PH of the effusion fluid

Answer: C

10-A 25-year-old lady presents to the office with shortness of breath. She has no other complaints. On physical examination, tight skin on her whole body and ulcerations can be seen on her fingers. X-rays and high resolution CT scan show bilateral ground glass opacities. What is the most likely diagnosis?

- a. Hypersensitivity pneumonitis.
- b. Connective tissue-related interstitial lung disease.
- c. Cystic fibrosis.
- d. Idiopathic pulmonary fibrosis.
- e. Sarcoidosis.

Answer: B

11-A young thin patient, who is otherwise healthy, presents with extreme tiredness and shortness of breath. Her PFTs show restrictive pattern but normal DLCO was found. Further investigations showed increased pressure in the pulmonary artery. Which of the following is the mechanism through which her disease developed?

- a. Obstructive sleep apnea
- b. Calcification of the heart valves
- c. Proliferation of vascular smooth muscles
- d. Thickening of the gas-exchange membrane

Answer: C

12-Which of the following is true regarding apnea and hypopnea?

- a. Apnea : 90% or more reduction in airflow or complete cessation of air flow for 10 seconds.
- b. Central apnea is Apnea with evidence of respiratory effort
- c. Obstructive apnea is Apnea with absence of continued respiratory effort
- d. Hypopnea is decreased flow of less than 10% for at least 10 seconds

Answer: A

13-Which of the following is a physiological compensatory mechanism in response to hypoxia?

- a. Hypoventilation
- b. Increased erythropoietin synthesis
- c. Decreased mediators of angiogenesis

d. Decreased hematocrit

Answer: B

14-Which of the following cytokines is involved in pathophysiology of asthma?

- a. IL-1
- b. TNF- $\alpha$
- c. IL-5
- d. IL-13

Answer: C

15-A 66-year-old man, smoker, complains of day-time sleepiness. He has a history of snoring for many years. Which of the following is a known complication to the patient's case?

- a. Lung cancer
- b. Renal failure
- c. Systemic hypertension
- d. None of the above

Answer: C

### GI system

1-A 45-year-old lady with new onset ascites presented to the clinic with abdominal pain and discomfort. He has a history DM, HTN. Vitals were stable. Her abdomen is distended with large ascites. Labs include AST 22 U/L, ALT 35 U/L, total bilirubin of 0.8 mg/dL, albumin of 3.7 g/dL, sodium 142mEq/L, creatinine of 0.5 mg/dL, and a platelet count of 220,000/ $\mu$ L, Urine analysis protein +1. She had a diagnostic paracentesis, which revealed ascites polymorphonuclear count of 100/mm<sup>3</sup>, albumin 3.0 g/dL, total protein 3.9 g/dL. One of the following is the most likely possible cause of her presentation.

- a. Budd chiari syndrome
- b. Nephrotic syndrome
- c. Heart failure
- d. Malignancy
- e. Liver Cirrhosis

Answer: D

2-One of the following statements is FALSE regarding idiopathic achalasia:

- a. Manometry shows impaired lower esophageal sphincter relaxation
- b. It is uncommon in individuals younger than 18 years of age
- c. It usually presents with dysphagia to solids with significant weight loss
- d. There is aperistalsis of distal esophagus

- e. Pneumatic dilation of the lower esophageal sphincter is one of the treatment modalities

Answer: C

3-You are asked to consult on a 29-year-old woman with acute liver failure. The patient has no prior history of liver disease and was well until 1 month ago. Physical examination reveals jaundice and ascites; Grade 2 encephalopathy is present. Laboratory tests are as follows: Total bilirubin 16.3 mg/dl (normal: 0.3-1.2 mg/dL) Alkaline phosphatase 40 U/L (normal: 36-92 U/L) ALT 500 U/L (normal: 0-35 U/L) AST 1,220 U/L (normal: 0-35 U/L) Prothrombin time 19.2 s (normal: 11-13 s) Hematocrit 28% (normal: 36-47%); schistocytes are seen on the smear. Coombs test negative. Ceruloplasmin 19 mg/dl (normal: 20-40 mg/dL) Ferritin 300 ng/ml (normal: 15-200 ng/mL). The most likely cause of her presentation is:

- a. Hemochromatosis
- b. Wilson disease
- c. Autoimmune hepatitis
- d. Hepatitis A infection

Answer: B

4-All of the following warrant screening for celiac disease except:

- a. Iron deficiency anemia
- b. Constipation
- c. Short stature
- d. Duodenal ulcers

Answer: B

5-A 33-year-old male patient has been suffering from chronic diarrhea and abdominal pain for 4 months. Recently, red nodules on the shins started appearing. What is the most likely diagnosis?

- a. Pyoderma gangrenosum
- b. Erythema marginatum
- c. Erythema nodosum
- d. Dermatitis herpetiformis

Answer: C

6-Which of the following is present in ulcerative colitis and not in Crohn's?

- a. Skip lesions
- b. Cobblestone appearance
- c. Fistula formation
- d. Rectal involvement

Answer: D

7-Which of the following follows the disease progression of IBD?

- a. Pyoderma gangrenosum
- b. Primary sclerosing cholangitis
- c. Erythema nodosum
- d. Ankylosing spondylitis

Answer: C

8-One of the following is not associated with precipitation of hepatic encephalopathy:

- a. hypokalemia
- b. hyperuricemia
- c. Constipation
- d. GI bleeding
- e. Spontaneous bacterial peritonitis

Answer: B

9-A 45-year-old female patient with past medical h/o symptomatic gallstones s/p uneventful laparoscopic cholecystectomy 18 months ago. She was admitted via ER with upper abdominal pain associated with nausea and vomiting with yellow discoloration of the skin, sclera and darkening of the urine color over the past 3 days. She also had an episode of chills and undocumented fever. In the ER her V/S were BP 120/55, HR 102, T 38.9 C. Lab values were remarkable for a wbc of 13,000 k, Hb 12.3 g/dL, Alk Phos of 300 (60-118) AST 400 (< 40) and ALT of 450 (< 40). A liver ultrasound was remarkable for a CBD diameter of 11 mm (normal <6mm), without intrahepatic ductal dilation. What is the most appropriate next step in management of this patient?

- a. ERCP
- b. IV antibiotics
- c. Cholestyramine
- d. MRCP and lab tests

Answer: B

10-Which of the following statements is true regarding acute pancreatitis?

- a. Lipase is more sensitive than amylase
- b. The diagnosis is mainly a radiological one
- c. Lipase is more specific than amylase
- d. Clinical diagnosis alone is enough

Answer: C

11-AMA is associated with which disease?

- a. Autoimmune hepatitis
- b. Primary biliary cholangitis
- c. Primary sclerosing cholangitis

d. Hemochromatosis

Answer: B

12-Which of the following is not a cause of secretory diarrhea

- a. Gastrointestinal toxic disease
- b. Resection of part of the ileum
- c. Laxatives
- d. Carbohydrate malabsorption

Answer: D

13-What is the first step in treating ascites?

- a. Antibiotics
- b. Paracentesis
- c. Sodium restriction
- d. Water restriction

Answer: C

14-A patient complaining of abdominal pain, and yellowish discoloration of the skin. Lab results show the following: elevated AST and ALT, HBsAg: positive, HBV DNA: positive, Anti-HBs: negative, anti HBc IgG: positive. What stage of the disease does this patient have?

- a. Non-replicative chronic infection
- b. Acute infection
- c. Active chronic infection
- d. Immune-tolerant chronic infection

Answer: C

15-Which of the following does not indicate poor prognosis for a patient with Crohn's disease?

- a. Old age
- b. Dependence on corticosteroids
- c. Excessive smoking
- d. Strictures

Answer: A

### Cardiovascular system

1-A 53-year-old man known to have hypertension presents to your clinic for management of his hypertension, his medications include amlodipine 10mg, lisinopril 40mg, and hydrochlorothiazide 25mg. On examination, his BMI is 42 kg/m<sup>2</sup>, BP 157/96mm Hg, heart rate 82 beats per min. Heart examination is normal. Which of the following is the most appropriate for evaluation of his hypertension?

- a. Sleep study



- b. Plasma metanephrines
- c. Dexamethasone suppression test
- d. Adding one more drug

Answer: A

2-What is the condition that is associated with the highest risk of developing infective endocarditis?

- a. Severe aortic regurgitation.
- b. Mitral regurgitation.
- c. Rheumatic fever with valvular heart disease.
- d. Mitral valve prolapse.
- e. Prosthetic valve.

Answer: E

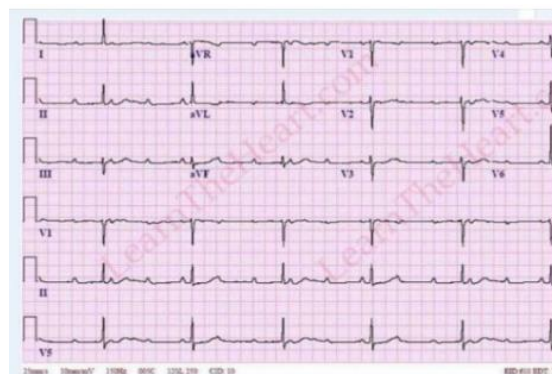
3-A 32-year-female was noted to have mild reduction in exercise capacity over the past 6 to 12 months. On physical examination, the blood pressure is 100/70 mm Hg and the pulse is 68/min and regular. The apical impulse is not displaced. The S1 is normal. The S2 is split throughout the respiratory cycle. A grade 2/6 midsystolic murmur is noted at the second left intercostal space. There is a grade 2/6 diastolic rumble noted at the lower left sternal border. Both murmurs increase with inspiration. The remaining findings on physical examination are unremarkable. An electrocardiogram demonstrates normal sinus rhythm with right axis deviation and normal intervals. Which of the following is the most likely diagnosis in this patient?

- a. Left atrial myxoma
- b. Mitral stenosis.
- c. Atrial septal defect
- d. Hypertrophic cardiomyopathy
- e. Pulmonary artery hypertension

Answer: E

4-What is the rhythm

- a. Sinus rhythm with frequent Premature atrial contraction
- b. Sinus bradycardia
- c. Atrial fibrillation.
- d. Third degree AV nodal block
- e. Second degree AV block



Answer: D

5-The most common cause of heart failure with preserved ejection fraction is:

- a. Myocardial infarction
- b. Hypertension
- c. Hypertrophic cardiomyopathy
- d. Aortic stenosis

Answer: B

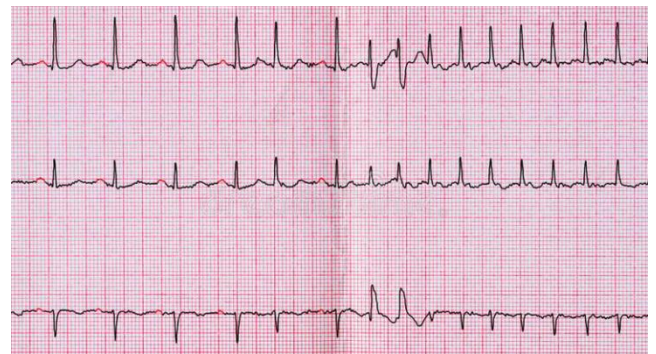
6-A 32 year old previously healthy female is present with continuous shortness of breath on exertion since she gave birth two months ago. On imaging cardiomegaly and congestion can be seen. What is the most probable diagnosis?

- a. Hypertrophic cardiomyopathy
- b. Restrictive cardiomyopathy due to amyloidosis
- c. Post-partum cardiomyopathy
- d. Drug induced heart failure

Answer: C

7-A patient is present with headache and palpitations. An ECG was done. What is the best management for this patient?

- a. Order echo and give anticoagulants
- b. Start him on IV beta blockers
- c. Cardioversion
- d. Reassurance



Answer: A

8-Which of the following does not increase the risk of stroke in a patient diagnosed with atrial fibrillation?

- a. Hypertension
- b. Hyperlipidemia
- c. Previous TIA
- d. Old age

Answer: B

9-Which of the following is not an absolute contraindication to thrombolysis?

- a. Menstruation
- b. Cerebral Arterio-venous malformation
- c. Ischemic stroke within 3 months
- d. Previous intracranial hemorrhage

Answer: A

10-A diagnosis of resistant hypertension is established after the patient is not responding to:

- a. 4 hypertension drugs
- b. 2 hypertension drugs
- c. 3 hypertension drugs including a calcium channel blocker
- d. 3 hypertension drugs including a diuretic

Answer: D

11-Which of the following combinations are most appropriate to be given as antihypertensive medications?

- a. Lisinopril + Amlodipine
- b. Captopril + valsartan
- c. Hydrochlorothiazide + bisoprolol
- d. Metoprolol + Amlodipine

Answer: A

12-A patient is present with shortness of breath. His JVP is not elevated, which of the following cannot be the cause?

- a. Right heart failure
- b. Coronary artery disease
- c. Hypertrophic cardiomyopathy
- d. Mitral regurgitations

Answer: A

13-Which of the following is not seen in constrictive pericarditis?

- a. Pulsus alternans
- b. Elevated JVP
- c. Kussmaul sign
- d. Pericardial knock

Answer: A

14-A patient with regular follow-up presents with a blood pressure of 130/82 although having normal blood pressure normally at home. What is the best next step?

- a. Start lifestyle modifications as he has stage 1 hypertension
- b. Start lifestyle modifications with one drug as he has stage 1 hypertension
- c. Start with 2 drugs as he might have resistant hypertension
- d. Continue ambulatory blood pressure readings

Answer: D

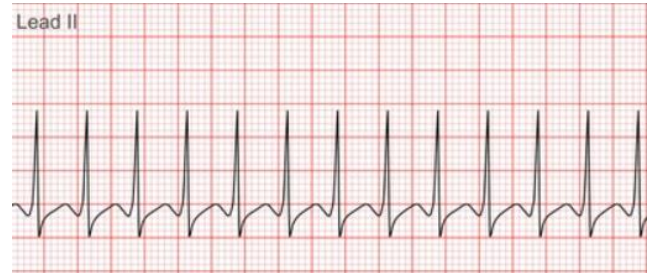
15-Which of the following indicates bad prognosis in MI?

- a. Male gender
- b. Diabetes
- c. ST elevation of 2 mm
- d. Bradycardia

Answer: B

16-A patient complains of palpitation. An ecg was done, what is the most appropriate treatment?

- a. Digoxin
- b. Adenosine
- c. Amiodarone
- d. B-blockers



Answer: B

## Infectious Diseases

1-Pruritis Ani is caused by:

- a. Entrobium vermicularis
- b. Ascaris lumbricoides
- c. Tenia solium
- d. Trichuris Trichura

Answer: A

2-Type of isolation in TB is:

- a. Contact
- b. Droplet
- c. Protective
- d. Respiratory

Answer: A

3-The percentage of transmitting HIV from the mother to the child is:

- a. 5%
- b. 10%
- c. 25%
- d. 50%
- e. 70%

Answer: C

4-Which of the following anti-microbials are nephrotoxic?

- a. Penicillin and cephalosporines
- b. Gentamycin and Vancomycin
- c. Fluoroquinolones
- d. Metronidazole

Answer: B

5-A patient is present with fever, neck rigidity, and decreased level of consciousness. On the next day he developed palpable purpuric rash all over his body. The causative agent is most likely:

- a. S. Pneumonia
- b. N. meningitidis
- c. N. gonorrhea
- d. H. influenza

Answer: B

6-A patient is present with severe diarrhea. He has a history of upper respiratory tract infection for which he took a course of penicillin. A colonoscopy was done and showed pseudomembranes. The causative agent is most likely

- a. Gram negative aerobic bacilli
- b. Gram positive anaerobic bacilli
- c. Gram positive cocci
- d. Gram positive aerobic bacilli

Answer: B

7-A 30-year-old nurse presents to the employee health department with concerns of possible tuberculosis (TB) exposure. She has been working in a high-risk setting and started complaining of cough and fever. As part of the screening process, a tuberculin skin test (PPD) is performed. The nurse's PPD test results show an induration of 14 mm. What is the next step?

- a. Observe
- b. Do a chest X ray
- c. Start anti-TB drugs
- d. Repeat the test.

Answer: B

## Nephrology

1-One of the following drugs causes acute interstitial nephritis:

- a. Erythromycin
- b. Bisoprolol
- c. Allopurinol
- d. Lithium
- e. Candesartan

Answer: c

2-A 55 year old man was doing his annual checkup at the primary care clinic, the nurse was logging his reading, when she found that his blood pressure is 150/90, all of the following statements are correct except:

- a. Masked hypertension has good prognosis
- b. A blood pressure reading of  $> 180/110$  is diagnostic of hypertension.
- c. Consistent readings of 130-139/80-89 are diagnostic of hypertension.
- d. White coat hypertension doesn't require treatment.
- e. Low sodium diet is among the initial steps in hypertension management at all stages.

Answer: a

3-A 19 year old female patient, noticed that her urine was red, when history was taken she mentioned that she's been having a headache with a congested runny nose, cough and sore throat for the past few days, she noticed a similar phenomenon once before, upon investigation paraproteinemia was found to be negative, what's the most probable diagnosis?

- a. Lupus nephritis
- b. Mycoplasma infection
- c. IgA nephropathy
- d. Post streptococcal glomerulonephritis
- e. Pyelonephritis

Answer: c

4-A 19 year old female patient, noticed that her urine was red, when history was taken she mentioned that she's been having a headache with a congested runny nose for the past few days, she noticed a similar phenomenon once before, upon investigation paraproteinemia was found to be negative, if a biopsy was taken, which of the following findings is expected to be seen:

- a. IgA based immune complexes around the mesangial cells (IgA nephropathy) on IF
- b. IgG, IgM and C3 based granular appearance on immunofluorescence
- c. Apple green birefringence of congo red stain under polarized light microscopy
- d. Crescent shaped lesions on light microscopy
- e. Linear immunofluorescence following the glomerular basement membrane

Answer: a

5-All of the following are indications for hemodialysis except:

- a. Hyperuricemia with signs of impaired cognition.
- b. Hyperuricemia in an otherwise asymptomatic patient.

- c. A patient with creatinine clearance of 13 ml/min.
- d. A patient showing ECG changes and a potassium level of 6.3 mEq/L refractory to medical treatment.
- e. A patient who ingested an entire bottle of his antiseizure medication.

Answer: b

6-A 55 y/o diabetic male patient, upon investigation was found to have an albumin creatinine ratio of 150 g/m, all of the following statements about this case are correct except:

- a. Diabetic nephropathy is screened 5 years after diagnosis then annually in type 1 DM
- b. He requires another reading to confirm Microalbuminuria
- c. Retinopathy coincides with nephropathy in type 1 DM.
- d. Macroalbuminurea coincides with hypertension in type 2 DM.
- e. Microalbuminurea coincides with hypertension in type 1 DM

Answer: d

7-Not a predictive factor of chronic kidney disease progression in 75 y/o polymorbid diabetic man:

- a. A1C 6.8-7%
- b. Albumin/Creatinine ratio of 50
- c. Hypertension
- d. Total cholesterol 250
- e. Diabetic retinopathy

Answer: a

8-A 78 y/o female presented to the ER with a history of confusion, unsteadiness and a recent strong fall, she has controlled diabetes, and her medication history includes sertraline (an SSRI) for depression, blood pressure 120/90, pulse 80, her labs show the following: sodium 125, potassium 4.2, creatinine .52 mg/dl, urea 4.7, TSH 2.10, serum osmolality 255, urine sodium 45 mmol/l, what is the most likely diagnosis:

- a. Blood pressure medication complication
- b. Hypothyroidism
- c. SIADH
- d. Nephrotic syndrome
- e. Increased GI losses

Answer: c

9-33 year old male patient with a history of depression, has ingested an entire bottle of aspirin the previous night, lab findings show the following: HCO<sub>3</sub> 16, pH 7.29, PaCO<sub>2</sub> 18, PaO<sub>2</sub> 89, Na 145, Cl 106, what is the acid base disorder?

- a. High anion gap metabolic acidosis + chronic respiratory alkalosis
- b. Metabolic acidosis + acute respiratory acidosis
- c. High anion gap metabolic acidosis + acute respiratory alkalosis
- d. Non anion gap metabolic acidosis
- e. Non anion gap metabolic acidosis + acute respiratory alkalosis

Answer: c

10-A 20-year-old female presented with edema, pleurisy, and frothy urine. The following tests were obtained: CBC: Hb 11, WBCs 4000, plt 135k, ESR 50. antinuclear antibody (ANA) is positive with a high titer, and DNA antibodies are present. The C4 is low at 8 mg/dL, and the C3 is low at 60 mg/dL. Urine albumin/ creatinine ratio of 325, and no RBCs. Treatment is initiated with glucocorticoids, what is the most likely diagnosis?

- a. Primary membranous nephropathy



- b. IgA nephropathy
- c. Diffuse proliferative glomerulonephritis
- d. Secondary membranous nephropathy
- e. Rapidly progressive glomerulonephritis

Answer: d

11-One of the following is correct about the physiology of aldosterone:

- a. Increases Na absorption on the proximal convoluted tubule
- b. Increases K secretion on Distal tubule and collecting ducts
- c. Increases Na absorption on the thick ascending limb of loop of henle
- d. Increases Na absorption in the collecting duct alone
- e. Increases H<sup>+</sup> secretion in distal convoluted tubule and collecting duct

Answer: b

12-A 50 year old non diabetic man, came to the clinic for blood pressure screening and evaluation, his office readings after rest and correct technique were all 150/95, what would be the best next step in evaluation?

- a. Start him on an ACE inhibitor in this visit
- b. Start him on a thiazide diuretic in this visit
- c. Ambulatory BP monitoring until next visit
- d. Start him on an ACEi + thiazide in this visit
- e. Disregard the reading completely and schedule visit next year

Answer: c

13-Patient with confirmed hypertension with readings 165/105, what is the best treatment?

- a. Amlodipine + nifedipine
- b. Valsartan + Amlodipine
- c. Valsartan + enalapril
- d. Amlodipine + hydrochlorthiazide
- e. Propranolol + verapamil

Answer: b

### Hematology

1-A 43 y/o lady presented to your clinic complaining of increasing fatigue with stairs climbing and daily activities, and dizziness, she's been having very heavy periods for the past year, when a complete blood test was done it showed that Hb was 9g/dl, which of the following is not seen in such patient:

- a. Bradycardia
- b. Pallor
- c. Palpitations
- d. Headaches
- e. Low reticulocyte count

Answer: a

2-A patient with B-thalassemia major requires multiple blood transfusions, in blood preparation methods, which of the following is specifically indicated to reduce the risk of graft vs host reactions: (not sure)

- a. Leukodepletion
- b. RBC irradiation
- c. Blood grouping
- d. Microbiology screening



Answer: b

3-A 21 y/o female patient, complains of dizziness, Fatigue, Shortness of breath on exertion and Headaches for the last 4 months. She has also been losing scalp hair, her hemoglobin level was 8 g/dl, which of the following statements isn't correct in management:

- a. Iron deficiency anemia can be attributed to absorptive defects
- b. There's no need to identify the cause
- c. Identifying the underlying cause is essential in proper treatment of anemia
- d. Low reticulocyte count is associated with deficiency anemias
- e. Most common cause of anemia is iron deficiency

Answer: b

4-Which of the following isn't associated with sickle cell disease?

- a. Hypersplenism
- b. Strokes
- c. Priapism
- d. Acute chest syndrome
- e. Anemia

Answer: a

5-All of the following may be seen in B12 deficiency, except:

- a. Abnormal odd behavior
- b. Parasthesia in hands
- c. MCV>100
- d. High homocystiene
- e. Low Methylmalonic acid

Answer: e

6-20 y/o male patient presented with fatigue, dizziness, palpitations, easy exertion, a complete blood count was performed, it showed the following; Hb 9 g/dl, reticulocytes 12%, normal plt, WBC, LDH 1160, bilirubin 3 mg/dl, which is the most probable diagnosis?

- a. Hereditary spherocytosis
- b. Iron deficiency anemia
- c. B12 deficiency
- d. Folate deficiency
- e. Anemia of chronic disease

Answer: a

7-46 y/o man came to the clinic complaining of several weeks of hotness in his face, itching and severe acute pain in his big toe, his hemoglobin was 19 g/dl, WBC 17000, platelets 510k, serum uric acid 12mg/dl, pO2 saturation 95%, which of the following genetic abnormalities is expected to be found based on the clinical picture?

- a. Bcl-2 mutation
- b. JAK2 mutation
- c. C-myc mutation
- d. NMP1 mutation
- e. Cyclin D1 mutation

Answer: b

8-A 65 y/o, male patient presented to the family medicine clinic, complaining of increasing malaise, multiple high fever episodes, night sweats and weakness over the past 3 months, his main concern was that there has been the growth of multiple lumps along his neck, he denies any upper respiratory symptoms, he lost about 5 kilograms (previous wt 72 kg), coincidental

screening for lung cancer for a prolonged smoking history showed a mediastinal mass, and clear lung fields, what's the most likely diagnosis:

- a. Hodgkin lymphoma
- b. Reactive lymph adenopathy to recent infection
- c. Sarcoidosis
- d. Lung cancer

Answer: a

9-A 26 y/o woman presented with a history of high fever, new onset seizures, and altered cognition for the past two days. Physical examination showed multiple bruises all over her body, and a poor general state. Vitals: temp of 40, pulse rate of 118, BP 85/54. Investigations revealed the following: Hb 9 g/dl, WBC 18k, plt 25k, LDH 1400, PT 14/12s (prolonged), pTT 35/32s, creatinine 2.5, fibrinogen 142 mg/dl, schistocytes seen on blood film, CT of the brain showed cerebral edema, and multiple areas of enhancement, which of the following is the best initial treatment?

- a. Start her on mannitol infusion
- b. Packed RBC transfusion
- c. Start her on 160 mg aspirin
- d. Daily plasma exchange
- e. Platelet transfusion

Answer: d

10-69 yr old man complains of fever and cervical and axillary swelling for several months with recurrent fever and productive purulent cough. P/E showed Splenomegaly, lymphadenopathy and pallor. Hb 10, MCV 100, Reticulocytes 7%, LDH 680U/mL, Blood film showed lymphocytosis with the presence of smudge cells. WBC 123k, Plt 85k, DAT+3, Bilirubin 2, Direct 0.5, which of the following is the best initial investigation to confirm the suspected diagnosis?

- a. Karyotyping t(9-22)
- b. Flow cytometry
- c. Bone marrow biopsy
- d. Lymph node biopsy
- e. FISH analysis

Answer: b

## Endocrinology

1-A 30 y/o female nurse came to the ER with history of repetitive hypoglycemic attacks over the past 3 months, she's been feeling very tired recently, and has gained 2 kilograms in the past month as she 'constantly feels hungry, and can't stop eating'. While taking the history, the patient mentions that her father suffered from multiple peptic ulcers. Her lab tests showed high insulin levels, high C-protein, and low Glucose (31), her HbA1c is 5.1, what is the most probable cause?

- a. Exogenous insulin
- b. Insulinoma
- c. Sulfonylureas ingestion
- d. Type 2 diabetes mellitus
- e. Keto dieting

Answer: b

2-A 33 woman has obesity, proximal myopathy, and abdominal striae. Low dose dexamethasone suppression test was positive, What is the most appropriate next step?

- a. 24 hour urine cortisol test
- b. Measure serum ACTH
- c. Abdomenal CT scan
- d. MRI pituitary gland
- e. No additional testing is indicated

Answer: a

3-A 70-year-old female presented with back pain, constipation, abdominal pain, and decreased urinary frequency. Her PTH was 110 (high), Ca 14 (high), and PO4 low. The most likely diagnosis is:

- a. Multiple myeloma
- b. Parathyroid carcinoma
- c. Paget's disease
- d. Osteomalacia
- e. Chronic kidney disease

Answer: b

4-33 female trying hard to lose weight for over a year, complains of menorrhagia, investigations revealed high TSH, low T3, low T4, which finding is not likely to be seen in physical examination?

- a. Thin hair
- b. Dry skin
- c. Pretibial myxedema
- d. Loss of lateral third of the eyebrows
- e. Goitre with bruit

Answer: e

5-A patient with a thyroid nodule is found to have TSH within normal levels. What is the most appropriate next step?

- a. CT imaging of the neck
- b. pertechnitate nuclear imaging
- c. Fine needle aspiration
- d. Reperform ultrasound after 3 months
- e. Radioactive ablation

Answer: c

6-A 55-year-old woman is evaluated for an incidentally discovered right adrenal mass. On the physical exam her blood pressure was 125/79 mmHg in both arms. The abdomen is non-tender, and there are no palpable masses. The remainder of the examination is unremarkable. Non-contrast CT of the abdomen demonstrates a 3.2 cm right adrenal lesion. Which of the following is the most appropriate next step in management?

- a. Low dose dexamethasone suppression test
- b. No additional testing is indicated
- c. CT-guided transcutaneous biopsy
- d. Plasma aldosterone to plasma renin ratio
- e. Adrenalectomy

Answer: a

7-A 35 y/o female, with a history of weight loss, polyuria, fasting blood glucose of 240, her HbA1c is 6.8, she doesn't complain of any symptoms, BMI is 32 kg/m<sup>2</sup>, which of the following is the most appropriate statement?

- a. Low c-peptide is expected to be found
- b. Has type 2 DM, should be started on insulin
- c. Has type 2 DM, doesn't need insulin
- d. Not enough information to make a sure diagnosis
- e. Should be screened for retinopathy and nephropathy in five years

Answer: c

8-A 28 y/o man presented with Nausea, vomiting, and orthostatic hypotension. On physical examination he looked pale, his blood pressure was 105/65, RBG 100, His lab workup revealed a sodium level of 126, normal potassium, morning saliva cortisol levels were below normal, ACTH levels were low, which of the following findings is possible in this patient?

- a. visual disturbances
- b. Hyperpigmentation of the skin
- c. Tachycardia
- d. Hypokalemia
- e. Adrenal hyperplasia

Answer: a

9-A 27 y/o lady with a history of controlled hyperthyroidism came to the endocrine medicine clinic to consult about pregnancy, what is the best management of her disease in this case?

- a. Suggest radioablation before hand
- b. Start on PTU with a beta blocker
- c. Stop all medications before and throughout pregnancy
- d. Manage with beta blockers alone

Answer: b

10-Which of the following is not seen in graves' disease?

- a. Pretibial Myxedema
- b. Proximal muscle weakness
- c. Irregular menstruation
- d. Diplopia
- e. Diastolic murmur

Answer: b

11-A 54-year-old obese female had routine laboratory work done which revealed a glycated hemoglobin A1C level of 6.6%. She reports no polyuria, no polydipsia, or other new complaints. How would you advise this patient:

- a. No intervention is needed but plan to repeat glycated hemoglobin A1C level after 6 months.
- b. She has type 2 diabetes and needs to start on metformin.
- c. She needs a repeat hemoglobin A1C level before making a diagnosis.
- d. She has prediabetes and needs to start on metformin.
- e. Assure her that her serum glycated hemoglobin A1C level is within normal range.

Answer: c

12-Not a feature of a case of hypercalcemic patient

- a. HTN
- b. Palpitation
- c. Constipation

d. General fatigue

Answer: a

## Rheumatology

1-Most common cause of mortality in systemic sclerosis is:

- a. Respiratory complications
- b. Cardiovascular events
- c. Renal impairment
- d. Associated malignancy
- e. Treatment associated complications

Answer: a

2-72 year old man presents with an acutely painful right knee .On examination he had a temperature of 37 C with hot ,swollen right knee. of relevance amongst his investigations was his white cell count which was  $12.6 \times 10^9$  and a knee x-ray revealed reduced joint space and calcification of the articular Cartilage. culture of aspirated fluid revealed no growth. what is the most likely diagnosis?

- a. psoriatic monoarthropathy
- b. gout
- c. septic arthritis
- d. pseudogout
- e. rheumatoid arthritis

Answer: d

3-One of the following statements is correct about rheumatoid arthritis:

- a. Anti CCP is present years before disease onset
- b. Most common extra articular manifestation is scleritis
- c. Lower titers of rheumatoid factor are indicative of a worse progression of the disease
- d. X rays of the affected joints show an irregular joint space loss
- e. Most common initial presentation is monoarthritis

Answer: a

4-Which of the following is spared in rheumatoid arthritis?

- a. Atlantoaxial joint
- b. Distal interphalangeal joints
- c. Proximal interphalangeal joints
- d. Cricoarytenoid
- e. MCP joints

Answer: b

5-One of the following causes a scleroderma like presentation:

- a. Lithium
- b. Toluene
- c. Phenytoin
- d. Carbamazepine
- e. Cisplatin

Answer: b

6-A 43 y/o lady, presented to the clinic complaining of progressive, symmetrical tenderness and stiffness in her metacarpophalangeal joints since 3 months, she denies similar complaints in other joints, positive RF, ANA, what is the most probable diagnosis?

- a. Rheumatoid arthritis
- b. Osteoarthritis
- c. Psoriatic arthritis
- d. Systemic lupus erythematosus
- e. Scleroderma

Answer: a

7-A 25-year-old female gives birth to a baby with complete heart block who subsequently requires pacemaker insertion. Which of the following antibodies is most likely to be detected in the maternal serum?

- a. Anti-endomysial antibodies
- b. Anti-SCL70 antibodies
- c. Anti-Ro/SSA antibodies
- d. Rheumatoid factor
- e. Anti-double-stranded deoxyribonucleic acid

Answer: c

8-Patient on hydralazine for hypertension develops fever, fatigue, pain in the small hand joints, and an abnormal facial rash, positive antihistone antibody, normal kidney function, most likely diagnosis?

- a. Severe allergic reaction
- b. Drug induced lupus
- c. New onset vasculitis
- d. Dermatomyositis
- e. Thrombotic microangiopathy

Answer: b

9-A 53 y/o, complaining of pain and stiffness in the left shoulder, lab findings reveal an elevated ESR, positive RF:

- a. Fibromyalgia
- b. Rheumatoid arthritis
- c. Osteoarthritis
- d. Polymyalgia rheumatica
- e. Brucellosis

Answer: d (we couldn't be sure about the answer)

10-28 y/o male patient came complaining of lower back pain, the orthopedic clinic referred him to the rheumatology clinic for evaluation, an initial X ray showed an early bilateral sacroiliitis, CBC was normal, RF -ve, CCP -ve, -ve ANA, which of the following is most consistent with the likely diagnosis:

- a. HLA-DR4
- b. HLA-DR3
- c. Low c3/c4
- d. Anti-SSA
- e. HLA-B27

Answer: e

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