

CVS MEDICINE

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1. SUPRAVENTRICULAR TACHYCARDIA

1. A 20-year-old woman has had palpitations for 6h. She has had similar episodes before but they have never lasted this long. An ECG shows a regular rhythm of 160 bpm with inverted P waves in leads II, III, and aVF, and narrow QRS complexes. Although vagal manoeuvres do not work, after adenosine 6 mg IV, normal sinus rhythm at 90 bpm is restored. Which is the single most likely origin of her tachycardia?

- a. Atrium
- b. Atrioventricular (AV) node
- c. Bundle of His
- d. Sinoatrial (SA) node
- e. Ventricle

2. A 30 year old man suddenly collapses after an acute attack of palpitations. His blood pressure is 60/30 mmHg. An ECG reveals supraventricular tachycardia. The most appropriate immediate treatment would be

- a. I/V Verapamil
- b. I/V Adenosine
- c. I/V Digoxin
- d. I/V Labetalol
- e. D.C. cardioversion

3. A 71-year-old man has had a central chest pain radiating to his left arm for 1 hour. While an ECG is being recorded, some observations are carried out. T=37.1°C, HR= 44 bpm, BP=110/65mmHg, RR=22/min. Which is the single most likely occluded coronary artery?

- a. Left circumflex coronary artery
- b. Left anterior descending artery
- c. Left main coronary artery
- d. Posterior descending artery
- e. Right coronary artery

2. CARDIAC FAILURE

1. A 73-year-old woman has been short of breath for the past 3 weeks. She now needs to sleep with four pillows rather than two and has swollen ankles by the end of the day. She uses a regular steroid inhaler for asthma but has never been in hospital for any reason. Which of the following is the most likely diagnosis?

- a. Acute exacerbation of asthma
- b. Angina
- c. Cardiac failure
- d. Pneumonia
- e. Pulmonary embolism

2. A 75 years old woman has noticed her ankles are swollen at the end of each day. She has also started to get short of breath after walking up several flights of stairs. Her HR78bpm, BP=120/65mmHg. Which of the following medications would be appropriate to start?

- a. Furosemide 40 mg PO once daily
- b. Losartan 50 mg PO once daily
- c. Aspirin 75 mg PO once daily
- d. Digoxin 62.5mg PO once daily
- e. Verapamil 120 mg PO once daily

3. In a patient with severe cardiac failure and atrial fibrillation, which is the best therapeutic option.

- a. Calcium channel blockers
- b. Nitrates
- c. B-blockers
- d. ACE inhibitors
- e. Digoxin

4. One of the following conditions need to be excluded in a patient with cardiac failure and atrial fibrillation

- a. Cirrhosis
- b. Inflammatory bowel disease
- c. Parkinson's disease
- d. Cushing disease
- e. Thyrotoxicosis

5. In a patient with cardiac failure the following drugs improve long term prognosis except

- a. Diuretics
- b. ACE inhibitors
- c. ARBs
- d. Spironolactone
- e. Low dose B-blockers

7. A 73 year old woman has been short of breath for the past 3 weeks. She now needs to sleep with four pillows rather than two and has swollen ankles by the end of the day. She used a regular steroid inhaler for asthma but has never been in hospital for any reason. Which of the following is the most likely diagnosis?

- a. Acute exacerbation of asthma
- b. Angina
- c. Cardiac failure
- d. Pneumonia
- e. Pulmonary embolism

8. A 75 years old woman has noticed her ankles are swollen at the end of each day. She has also started to get short of breath after walking up several flights of stairs. HR=78 bpm, BP=120/65mmHg. Which of

the following medications would be appropriate to start?

- a. Furosemide 40 mg PO once daily
- b. Losartan 50 mg PO once daily
- c. Aspirin 75mg PO once daily
- d. Digoxin 62.5mg PO once daily
- e. Verapamil 120 mg PO once daily

8. Sudden death in myocardial infarction in most cases is due to

- a. Atrial fibrillation
- b. Ventricular fibrillation or asystole
- c. Cardiac failure
- d. Cardiogenic shock
- e. None of the above

3. HYPERTENSION

1. A 74-year-old woman has had a persistent dry cough for the last 3 months. Prior to this, she was diagnosed with hypertension and started on Lisinopril 4 mg PO once daily. Her BP=115/75 mmHg. Which of the following medications would be appropriate to start?

- a. Amlodipine 5 mg PO once daily
- b. Atenolol 25 mg PO once daily
- c. Diltiazem 60 mg PO three times a day
- d. Losartan 25 mg PO once daily
- e. Ramipril 2.5mg PO twice daily

2. A 32-year-old man returns to her physician for follow-up of hypertension that has been poorly controlled in spite of numerous antihypertensive medications. It is decided to evaluate the patient for possible "secondary" hypertension. Which of the following is a well-known cause of secondary hypertension?

- a. Ethnicity
- b. Obesity
- c. Renal artery stenosis
- d. Smoking
- e. Stress

3. A 53-year-old man is suffering from increasingly frequent bouts of chest pain. The pain has been provoked by exercise for the past 18 months. It is associated with shortness of breath and sweating, but passes as soon as he takes a moment to rest. He has stopped smoking and is currently taking aspirin 75mg once daily and atenolol 50 mg PO once daily. Which is the single most appropriate management?

- a. Amlodipine
- b. Bendroflumethiazide
- c. Losartan
- d. Ramipril
- e. Simvastatin

4. A 42 years old man has been asked to return to his family doctor having had elevated blood pressure readings on two previous occasions. His BP is 170/100 mmHg. Which of the following medications would be appropriate to start?

- a. Amlodipine 5 mg PO once daily
- b. Atenolol 25 mg PO once daily
- c. Diltiazem 60 mg PO three times a day
- d. Losartan 25 mg PO once daily
- e. Ramipril 2.5mg PO twice daily

5. A 66 year old man has his quarterly appointment with his family doctor. He has been taking an angiotensin-converting enzyme (ACE) inhibitor for just over a year and uses allopurinol for gout. His BP = 165/95 mmHg. Which of the following medications would be appropriate to start?

- a. Amlodipine 5 mg PO once daily
- b. Atenolol 25 mg PO once daily
- c. Diltiazem 60 mg PO three times a day
- d. Losartan 25 mg PO once daily
- e. Ramipril 2.5mg PO twice daily

6. A 32-year-old woman sees her family doctor after having a high blood pressure reading at a routine medical clinic. She is currently trying to get pregnant and is concerned what effects this or any medications could have on the baby. Her BP=170/90

mmHg. Which of the following medications would be appropriate to start?

- a. Amlodipine 5 mg PO once daily
- b. Atenolol 25 mg PO once daily
- c. Diltiazem 60 mg PO three times a day
- d. Losartan 25 mg PO once daily
- e. Ramipril 2.5mg PO twice daily

7. A 42 year old woman has type 2 diabetes mellitus and hypertension. She has recently been started on an antihypertensive medication and has noticed that her blood glucose control is not as good as it was before. Which of the following drugs is responsible for the symptoms of this patient?

- a. Amlodipine
- b. Valsartan
- c. Bendroflumethiazide
- d. Lisinopril
- e. Verapamil

8. A 64-year-old woman has always had cold hands and feet, even in summer. She has recently started an additional antihypertensive medication and has found that her cold peripheries are even worse than usual. Which of the following drugs is responsible for the symptoms of this patient?

- a. Amlodipine
- b. Atenolol
- c. Bendroflumethiazide
- d. Lisinopril
- e. Verapamil

9. A fifteen year old boy presents with a history of fever and arthritis. There is a past history of similar symptoms one year back. A diagnosis of rheumatic fever is made. The treatment of choice for this patient's symptoms is

- a. Aspirin
- b. iclofenac
- c. Ibuprofen
- d. Paracetamol
- e. Morphine

4. CORONARY ARTERY DX

1. A 50-year-old male came to the hospital with a complaint of occasional left sided chest pain that lasted <30 mins, following exercise, which relieves upon taking rest. What is the most probable diagnosis?
 - a. Unstable angina
 - b. Decubitus angina
 - c. Stable angina
 - d. Coronary spasm
 - e. Myocardial Infarction
2. A 45 years old manual worker presented with a 2 hours history of chest pain radiating to his left arm. His ECG is normal. What is the single most appropriate investigation?
 - a. Cardiac enzymes
 - b. CXR
 - c. CT scan
 - d. ECG
 - e. V/Q scan
3. An 84-year-old man has central chest pain that has gradually worsened over the last month. He finds it is made worse on exertion - especially climbing the stairs to his flat. He has type 2 diabetes and a hiatus hernia. T=37.1°C, HR=95 bpm, BP165/95mmHg. An ECG and a chest X-ray are both reported as normal. Which is the single most likely diagnosis?
 - a. Angina
 - b. Gastro-oesophageal reflux disease
 - c. Heart failure
 - d. Myocardial infarction
 - e. Esophageal spasm
4. A 71-year-old man has had a central chest pain radiating to his left arm for 1 hour. While an ECG is being recorded, some observations are carried out. T=37.1°C, HR 44 bpm, BP=110/65mmHg, RR=22/min. Which is the single most likely occluded coronary artery?
 - a. Left anterior descending artery
 - b. Left circumflex coronary artery
 - c. Left main coronary artery
 - d. Posterior descending artery
 - e. Right coronary artery
5. The junior doctor on-call receives a bleep from a nurse during a busy night shift. A 53 years old man with type 1 diabetes has had central chest pain over the last 10 minutes. He has been admitted electively under the general surgeons for a laparoscopic inguinal hernia repair. The nurse has already performed an ECG. Which single additional detail from the nurse should prompt an immediate review of the patient (i.e., within the next 5 min)?
 - a. Blood glucose 15.2mmol/L
 - b. He has vomited twice since the pain has started
 - c. His operation is tomorrow morning
 - d. HR 98 bpm
 - e. SaO2 96% on air
6. A 66 years old man presented with ON/OFF renostomal chest pain of 2 years. Each attack lasts for LESS THAN 5 minutes, triggered by stress/exertion and relieved by rest and nitroglycerine. He is diabetic for the last 22 years, Hypertensive for the last 20 years and a smoker for last 18 years. Examination and resting ECG normal. What is the most likely diagnosis?
 - a. Myocardial infarction
 - b. Unstable angina Prinzmetal angina
 - c. Stable angina
 - d. Acute coronary syndrome
7. In the diagnosis of myocardial infarction the most reliable test is
 - a. X-ray chest
 - b. D. dimer
 - c. CBC
 - d. Exercise performance test
 - e. Troponin I

8. In a patient presenting with ST segment elevation myocardial infarction, within two hours of onsets of symptoms which is the best treatment option

- a. Calcium channel blocks
- b. Beta blockers
- c. digoxin
- d. I/V streptokinase
- e. Tissue plasminogen activator (TPA)

9. In a patient presenting with non ST segment elevated MI, the following drugs are indicated except

- a. Streptokinase
- b. Nitrates
- c. B-blockers
- d. Heparin
- e. Aspirin

10. A 44 years old male, smoker works in private bank, married having 2 kids. He presented to casualty with recurrent tachycardia/palpitations, this was his third visit to ER. His ECG done which is normal except slurred upstroke of R wave in QRS of chest leads. Echo and blood chemistry is normal. What is the long term treatment of choice?

- a. Amiodarone
- b. Aspirin
- c. Diltiazem
- d. Radiofrequency ablation
- e. Warfarin sodium

37. An 84 year old man has central chest pain that has gradually worsened over the last month. He finds that it is made worse on exertion-especially climbing the stairs to his flat. He has type 2 diabetes and a hiatus hernia. T=37.1°C, HR-95bpm, BP-165/95mmHg, An ECG and a chest X-ray are both reported as normal. Which is the single most likely diagnosis?

- a. Angina
- b. Gastro-oesophageal reflux disease
- c. Heart failure

- d. Myocardial infarction
- e. Oesophageal spasm

12. A 45 year old manual worker presented with a 2 hours history of chest pain radiating to his left arm. His ECG is normal. What is the single most appropriate investigation?

- a. Cardiac enzymes
- b. CXR
- c. CTscan
- d. ECG
- e. V/Qscan

13. A 50 year old man with diabetes mellitus suddenly develops persistent crushing central chest pain radiating to the neck with asymmetrical places. What is the single most appropriate diagnosis?

- a. Angina
- b. Costochondritis (Tietz's disease)
- c. Dissecting aneurysm
- d. Myocardial infarction
- e. Pulmonary embolism

14. The most common aortic malformation accompanying tetralogy of Fallot is

- a. right-sided aortic arch
- b. coarctation of the aorta
- c. congenital aortic stenosis
- d. bicuspid aortic valve
- e. aortic ectasia

15. An 84-year-old man has central chest pain that has gradually worsened over the last month. He finds it is made worse by exertion, especially climbing the stairs to his flat. He has type 2 diabetes and a hiatus hernia. T 37.1°C, HR 95 bpm, BP 165/95mmHg. An ECG and a chest X-ray are both reported as normal. Which is the single most likely diagnosis?

- a. Angina
- b. Gastro-oesophageal reflux disease
- c. Heart failure

- d. Myocardial infarction
- e. Esophageal spasm

16. A 68-year-old woman has had palpitations and felt short of breath for the last few months. She has rheumatoid arthritis and takes methotrexate. The doctor examining her detects an ejection systolic murmur. The is difficult to hear so he asks her to to carry out a manoeuvre to make it clearer. Which is the single most appropriate instruction to give to accentuate the murmur?

- a. Lean backwards in the couch
- b. Lean to your left side
- c. Squat down
- d. Take a deep breath in
- e. Try to breath out as if you were straining

17. A 32-year-old man has felt generally unwell for the last month or so. He sweats at night and has lost 3kg. He is otherwise fit and well but does confess to injecting illicit drugs. T=38.1°C, HR=100 bpm, BP=105/0mmHg. There is a pansystolic murmur loudest at the left sternal edge. Which single investigation is most likely to support the diagnosis?

- a. Arterial blood gas
- b. Creatine kinase
- c. Sputum sample
- d. Urea and electrolytes
- e. Urinalysis

5. VALVULAR HEART DX

1. The following is the character of the pulse in

Aortic Regurgitation

- a. Slow rising pulse
- b. Pulsus alternans
- c. Pulsus paradoxus
- d. Collapsing pulse
- e. Pulsus bisferiens

2. Which of the following is the character of pulse in Aortic stenosis

- a. Collapsing
- b. Slow rising
- c. Alternans
- d. Paradoxus
- e. Disferians

3. A 77 year old woman has felt intermittently dizzy for the last 6 months. She has not fallen but has felt if she might faint, especially when exerting herself. She has an ejection systolic murmur. Which single description of her pulse is most likely to support the diagnosis?

- a. Collapsing
- b. Irregularly irregular
- c. Jerky
- d. Slow-rising
- e. Thready

4. A 40-years-old man has had a transmural myocardial infarction 3 days ago. He suddenly develops acute vatlieuness. He has developed a new pan systolic murmur and his chest X-ray reveals florid pulmonary edema. What is the most likely cause of this complication?

- a. Pneumonia
- b. A fresh myocardial Infarction
- c. Acute mitral incompetence due to papillary muscle rupture
- d. Pulmonary embolism
- e. Ventricular fibrillation

5. A 42-year-old woman has type 2 diabetes mellitus and hypertension. She has recently been started on a new antihypertensive medication and has noticed that her blood glucose control is not as good as it was before. Which of the following drugs is responsible for the symptoms of this patient?

- a. Amlodipine
- b. Atenolol
- c. Thiazide diuretics
- d. Lisinopril
- e. Verapamil

6. In a young boy with hypertension, examination of the cardiovascular system reveals radio-femoral delay. The most likely cause of hypertension in this patient is

- a. Coarctation of aorta
- b. Diabetic nephropathy
- c. Conn's syndrome
- d. Dissection of aorta
- e. Renal artery stenosis

7. Four weeks after having a prosthetic heart valve a patient develops infective endocarditis. What is most likely a causative organism?

- a. Streptococcus viridans
- b. Staphylococcus epidermidis
- c. Streptococcus pneumoniae
- d. Streptococcus bovis
- e. One of the HACEK group

8. A brisk peripheral pulse is expected with each of the following EXCEPT

- a. Thyrotoxicosis
- b. Mitral stenosis
- c. Mitral regurgitation
- d. Cardiac beriberi
- e. Aortic insufficiency

9. Each of the following pathophysiologic processes causes an increased loudness of the first heart sound EXCEPT

- a. Thyrotoxicosis
- b. Mitral stenosis
- c. Sinus tachycardia
- d. Acute aortic insufficiency
- e. Atrial septal defect

10. Which of the following auscultatory findings of mitral stenosis is the most suggestive of severe disease?

- a. The presence of an S3
- b. A loud opening snap
- c. A diminished P
- d. A short A-opening snap interval
- e. None of the above

11. Classic echocardiographic findings in patients with mitral stenosis include each of the following EXCEPT

- a. left atrial enlargement
- b. Increased echogenicity of the mitral valve
- c. decrease in the E to F slope of the mitral valve
- d. prominent A wave of the mitral valve
- e. Mitral valve leaflet tethering

12. Prudent medical therapy for a completely asymptomatic 37-year-old housewife with no children at home who has mitral stenosis and atrial fibrillation would include each of the following EXCEPT

- a. careful follow-up during any pregnancy
- b. endocarditis prophylaxis for dental procedures
- c. control of the ventricular response rate during atrial fibrillation
- d. prophylactic anticoagulation
- e. prophylaxis for rheumatic fever

13. A 53-year-old man is suffering from increasingly frequent bouts of chest pain. The pain has been provoked by exercise for the past 18 months. It is associated with shortness of breath and sweating, but passes as soon as he takes a moment to rest. He has stopped smoking and is currently taking aspirin 75mg PO once daily and atenolol 50 mg PO once daily. Which is the single most appropriate management?

- a. Amlodipine
- b. endroflumethiazide
- c. Losartan
- d. Ramipril
- e. Simvastatin

14. A 20-year-old woman has had palpitations for 1h. She has had similar episodes before but they have never lasted this long. An ECG shows a regular rhythm of 160 bpm with inverted P waves in leads II, III, and aVF, and narrow QRS complexes. Although vagst manoeuvres do not work, after adenosine 6 mg IV, normal sinus rhythm at 90 bpm is restored. Which is the single most likely origin of her tachycardia?

- a. Atrium
- b. Atrioventricular (AV) node
- c. Bundle of His
- d. Sinostrial (SA) node
- e. Ventricle

6. CARDIAC ARRHYTHMIAS

- The cannon 'a' wave in the JVP is formed by
 - Ventricular contractions
 - Ventricular filling
 - Atrial filling
 - Atrial Fibrillation
 - Complete heart block
- In complete heart block which of the following therapeutic intervention is immediately required
 - IV Edemecine
 - IV Verapamil
 - IV Digoxin
 - Cardiac pacing
 - D/C Cardioversion
- In atrial fibrillation which of the JVP waves would be absent?

a. a b. c c. v d. x e. y
- A 75 years old lady bum Kastani presented to OPD with complaints of chest discomfort on exertion. In the past, she had anterior wall myocardial infarction 4 months back. Blood chemistry and investigations are normal except she has left ventricular impairment (ejection fraction 33%, normal >55%) on echocardiography. She is taking thiazide diuretics, aspirin, simvastatin and bisoprolol. Which of the following drugs will you add next?
 - Ramipril
 - Nicorandil
 - Nifedipine
 - Propranolol
- A 45 years old female with a known history of systemic sclerosis presents for annual review to the OPD. Which one of the following symptoms is most characteristic in patients who have developed pulmonary arterial hypertension?
 - Exertional dyspnea
 - Paroxysmal nocturnal dyspnea
 - Cough
 - Barely morning dyspnea
 - Orthopnea

8. MIX

- A 65 years old man who has a long history of hypertension presents to the emergency department with searing chest pain that radiates to the back. An electrocardiogram is normal, as are cardiac enzymes. A "stat" chest radiograph demonstrates widening of the mediastinum. Which of the following is the most likely?
 - Arteriovenous fistula
 - Atherosclerotic aneurysm
 - Berry aneurysm
 - Dissecting aneurysm
 - Syphilitic aneurysm
- A 60 years old patient who has had a Myocardial infarction a week back presents with dyspnea and pericardial rub. ECG shows ST elevation. CXR: loss of margin at costovertebral angle. What is the single most likely cause?
 - Cardiac tamponade
 - Mitral regurgitation
 - Dressler's syndrome
 - Atrial fibrillation
 - Emboli
- An elderly patient presents with chest-pain which is worse on lying down. He is febrile and the ECG reveals diffuse ST segment elevation through the chest leads. What is the most likely diagnosis?
 - Angina
 - Acute myocardial infarction
 - Pulmonary infarction
 - Pericarditis
 - Aortic dissection
- A CVP line is inserted for fluid resuscitation of a patient with left ventricular failure and acute renal failure. Which single X-ray finding is most likely to confirm correct placement of the line?
 - Both ends of the line can be seen
 - The line is lying lateral to the upper thoracic transverse processes
 - The line tip is between the first and third subcostal joints
 - The line tip is in the midline above the level of the clavicles
 - There is no obvious intra-pleural air

5. The following cardiac drugs are correctly paired with their corresponding indications for use EXCEPT

- Amiodarone-hemodynamically stable ventricular tachycardia
- Lignocaine-first line drugs for refractory ventricular fibrillation
- Magnesium sulphate-torsades de pointes
- Adenosine-paroxysmal supraventricular tachycardia
- Verapamil-supraventricular tachycardia

6. A 35 years old female presents with a deep vein thrombosis two weeks after delivery of a healthy baby. While in casualty, she develops a left hemiparesis. What underlying cardiac abnormality is most likely to be responsible

- Primum ASD
- Secundum ASD
- Patent foramen ovale
- VSD
- Patent ductus arteriosus

7. A 28 years old shipyard worker was admitted for pain in calf while at work, which has been increasing over the last three months. There is no history of hypertension or diabetes mellitus, but he is a smoker. Examination reveals loss of posterior tibial and dorsalis pedis pulsation along with a non healing ulcer at the base of the right first MCP joint. What is the most probable diagnosis?

- DVT
- Baker's cyst
- Thromboangitis Oblitans
- Embolus
- Sciatica

8. The absolute contraindication to thrombolytics therapy is

- INR >2.5
- Recent head trauma
- Suspected aortic dissection
- Known bleeding disorder
- Pregnancy

9. In the following signs/symptoms which is the most reliable for a diagnosis of Rheumatic fever

- Small joint arthritis
- Rashes
- Tachycardia
- Cardiac murmurs
- Backache

10. Which is the best therapeutic option in Pericardial Tamponade

- Oxygen
- IV diuretics
- Pericardiocentesis
- Digoxin
- B-blockers

ANSWER KEYS

1. SUPRAVENTRICULAR TACHYCARDIA

1.B	2.E	3.B
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2. CARDIAC FAILURE

1.C	2.A	3.E	4.E
5.A	6.C	7.A	8.D

3. HYPERTENSION

1.D	2.C	3.A	4.E	5.A
6.B	7.C	8.C	9.B	10.D

4. CORONARY DISEASE

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

5. VALVULAR HEART DISEASE

1.D	2.B	3.D	4.C	5.D
6.B	7.E	8.D	9.B	10.D
11.D	12.D	13.E	14.C	

6. CARDIAC ARYTHMIAS

1.E	2.D	3.A	4.B	5.B
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7. MIX

1.D	2.C	3.D	4.C	5.B
6.	7.A	8.C	9.D	

DERMATOLOGY

1.	GONORRHEA	2
2.	VITILIGO	2
3.	CUTANEOUS AIDS / HIV	2
4.	DERMATITIS	3
5.	PITYRIASIS ROSEA	3
6.	PSORIASIS	4
7.	MIX	4

1. GONORRHEA

1. A 25 years old woman complains of low grade fever, malaise, and sore throat. After this prodromal phase, a rash of discrete erythematous macules begins on her arms and progresses to form painful hemorrhagic pustules on her arms and hands. She is noted to have pharyngeal erythema. What is the most likely cause of rash?

- a. cat scratch disease
- b. Gonococcal infection
- c. Sleeping in an infected bed
- d. Previous varicella zoster exposure
- e. Subcutaneous drug injection

2. A 25-years old woman of low grade fever, malaise, and sore throat. After this prodromal phase, a rash of discrete erythematous macules begins on her arms and progresses to form painful hemorrhagic pustules on her arms and hands. She is noted to have pharyngeal erythema. What is the most likely cause of her rash?

- a. Cat scratch disease
- b. Gonococcal infection
- c. Sleeping in an infected bed
- d. Previous varicella-zoster exposure
- e. Subcutaneous drug injection

2. VITILIGO

1. A 20-year-old woman presents with depigmented white patches of skin on the face, neck, and bank. She has a past history of Grave's disease. Which of the following is the most likely diagnosis?

- a. Ocular albinism
- b. Oculocutaneous albinism
- c. Vitiligo
- d. Freckle
- e. Verrucan vulgaris (common wart)

2. Vitiligo has been associated with each of the following except.

- a. Peptic ulcer
- b. Pernicious anemia
- c. Thyroid dysfunction
- d. Addison's disease
- e. Alopecia areata

3. CUTANEOUS AIDS / HIV

1. The cutaneous manifestations of acquired immunodeficiency syndrome (AIDS) include an increased incidence of all of the following except.

- a. Herpes simplex infections
- b. Oral candidiasis
- c. Diffuse Kaposi's sarcoma
- d. Oral hairy leukoplakia
- e. Melanoma

2. Which of the following is the facial eruption most frequently associated with AIDS?

- a. Lupus
- b. Acne
- c. Seborrheic dermatitis
- d. Melasma
- e. Rosacea

3. Unmarried young man presents with extensive oral candida and diarrhea for the last two months has lost significant amount of weight. His differential blood count reveals Lymphopenia. He should be for.

- a. Aplastic anemia
- b. Celiac disease
- c. Steroid abuse
- d. HIV infection
- e. Intestinal TB

4. Most common old boy presents with a purpuric rash on his buttocks, and back of legs. He is also complaining of Arthralgia and abdominal pain with some bloody diarrhea. He had a cold about one week ago urine RE reveals proteinuria and microscopic hematuria. What is the most likely diagnosis?

- a. Henoch Schonlein Purpura
- b. Polyarteritis nodosa
- c. Kawasaki disease
- d. SLE
- e. Inflammatory bowel disease

5. The cutaneous manifestations of acquired immunodeficiency syndrome (AIDS) include an increased incidence of all of the following EXCEPT:

- a. Herpes simplex infections
- b. Oral candidiasis
- c. Diffuse Kaposi's sarcoma
- d. Oral hairy leukoplakia
- e. melanoma

4. DERMATITIS

1. Telogen effluvium, the temporary shedding of increased numbers of resting hair, can be caused by each of the following EXCEPT:

- a. Normal delivery
- b. Severe malnutrition
- c. A myocardial infarction
- d. An anesthesia stress
- e. Seborrheic dermatitis

2. A 17-years-old adolescent girl presents with rash localized to the wrist and chest at the sternal notch. Papules and vesicles are noted in a bandlike pattern, with oozing from some lesions. Which of the following is the most likely cause of the rash?

- a. Herpes simplex
- b. Shingles
- c. Atopic dermatitis
- d. Seborrheic dermatitis
- e. Contact dermatitis

3. Each of the following is characteristic of atopic dermatitis EXCEPT:

- a. Blanching response to injections of acetylcholine
- b. Increased susceptibility to cutaneous viral infections
- c. Association with increased risk for cataracts
- d. Increased risk of melanoma
- e. Deficiency of T-cell function

4. A 17-years-old adolescent girl with a pruritic rash localized to the wrist and chest at the sternal notch. Papules and vesicles are noted in a bandlike pattern, with oozing from some lesions. Which of the following is the most likely cause of the rash?

- a. Herpes simplex
- b. Shingles
- c. Atopic dermatitis
- d. Seborrheic dermatitis
- e. Contact dermatitis

5. PITYRIASIS ROSEA

1. A 17 years old adolescent girl noted a 2 cm annular pink, scaly lesion on her back. Over the next 2 weeks she develops several smaller oval pink lesions with a fine collarette of scale. They seem to run in the body folds and mainly involve the trunk, although a few occur on the upper arms and thighs. There is no lymphadenopathy and no oral lesions. Which of the following is the most likely diagnosis?

- a. Tinea versicolor
- b. Psoriasis
- c. Lichen planus
- d. Pityriasis rosea
- e. Secondary syphilis

6. PSORIASIS

1. White nails are associated with all of the following conditions EXCEPT

- a. Psoriasis
- b. Renal failure
- c. Arsenic poisoning
- d. Cytotoxic drug therapy
- e. Cirrhosis liver

2. A 45 years old male presented with well-defined erythematous plaques on elbows, knees and scalp. The lesions had a silvery scale. The most likely diagnosis is:

- a. Psoriasis
- b. Seborrhoric dermatitis
- c. Allergic contact eczema
- d. Atopic eczema
- e. Tinea corporis

3. A 22-years-old woman receiving thiazide diuretic and Bactrim therapy has an acute erythematous eruption in a V shaped pattern over the chest and diffusely over face with sparing of the eyelids and the area under the chin. Each of the following is a possible diagnosis EXCEPT:

- a. A thiazide reaction
- b. A Bactrim reaction
- c. A photosensitivity reaction
- d. Lupus erythematosus
- e. Psoriasis

7. MIX

1. From which one of the following sites would squamous cell carcinoma be least likely to metastasize to the local lymph node?

- a. The lower lip
- b. An area of previous x-ray damage
- c. An old burn scar
- d. the tip of the nose
- e. The oral mucosa

2. Steven Johnson syndrome is associated with all of the followings EXCEPT.

- a. Pencillin
- b. Suphonamides.
- c. Oral contraceptives
- d. Thiazide diuretics
- e. Salicylates

3. Alopecia is a recognized complication of all of the following EXCEPT.

- a. Withdrawal from oral contraceptives
- b. Heparin
- c. Ethionamide
- d. Cyto toxic drugs
- e. Sulfonamides

4. A homeless man with very poor Hygiene is brought to casualty with severe itching all over. He does not have any systemic illness. The itching is worse at night. He has excoriated skin between finger and toe webs:

- a. Contact Dermatitis
- b. Eczema
- c. Urticaria
- d. Scabies
- e. Contact Dermatitis

5. In a young girl with recurrent painless mouth ulcers, alopecia and photosensitive skin rash. The likely diagnosis is:

- a. Eczema
- b. Acne.
- c. SLE
- d. Erysipelas
- e. Contact Dermatitis

6. Which of the following is not a usual site for scabies lesion in adults,

- a. Wrists
- b. Between fingers
- c. Inguinal region
- d. Axillae
- e. Scalp

7. A 16 years-old boy presents with a purpuric rash on his buttocks, and back of legs. He is also complaining of Arthralgia and abdominal pain with some bloody diarrhea. He had a cold about one week ago. Urine RE reveals proteinuria and microscopic hematuria. What is the most likely diagnosis?

- a. Henoch Schonlein Purpura
- b. Polyarteritis nodosa
- c. Kawasaki disease
- d. SLE
- e. Inflammatory bowel disease

8. Function of the skin include all except:

- a. Vitamin D synthesis
- b. Sensation
- c. Shock absorber
- d. Vitamin E synthesis
- e. Water and electrolyte regulation

9. A patient is brought with a history of disorganized behavior, running away from home, burning things and trying to undress herself. On examination, you find that her limbs can be moved in awkward position very easily and that position is maintained. This sign is called:

- a. Negativism
- b. Automatic obedience
- c. Echolalia
- d. Echopraxia
- e. Waxy flexibility

10. A 36-years-old man comes to you for evaluation of a pigmented lesion which he says has changed in size and color over the past year. Examination reveals a 1.5 cm irregularly pigmented re-brown-black plaque with irregular, notched borders. Which of the following is the best diagnostic procedure?

- a. Wide surgical excision (3-5 cm border)
- b. Incisional biopsy
- c. Exfoliative cytology
- d. Excisional biopsy
- e. Serologic testing

11. A 57-years-old man notes diffuse hyperpigmentation of the skin. Each of the following is a possible explanation EXCEPT:

- a. Drug reaction
- b. Pemphigus vulgaris
- c. Biliary cirrhosis
- d. Underlying malignancy
- e. Metastatic melanoma

12. The Tzanck smear can aid in the diagnosis of each of the following EXCEPT:

- a. Vitiligo
- b. Herpes Zoster
- c. Pemphigus vulgaris
- d. Herpes simplex
- e. Varicella

13. Molluscum contagiosum is caused by:

- a. Human papilloma virus
- b. Dermatophytes
- c. Pox virus
- d. Staphylococcus aureus
- e. Papilloma virus

14. Mild Acne Vulgaris is best treated with:

- a. Benzoyl Peroxide.
- b. Oral Isotretinoin
- c. Topical steroids
- d. Intralesional steroids
- e. Doxycycline

15. A 34-years-old man presents with a wide spread maculopapular rash and mouth ulcers. 2 months ago, he reports developing a painless penile ulcer. Which of the following organisms is most likely responsible?

- a. Herpes simplex virus
- b. Treponema pallidum
- c. Human immunodeficiency virus
- d. Human papilloma virus
- e. Human T cell lymphotropic virus

16. A 27-years-old woman presents with a fixed erythematous scaly, atrophic plaque on the face and sun-exposed areas. Telangiectasia, hypopigmentation and follicular plugging are apparent. Examination of the scalp shows scarring alopecia and the mouth has erythematous patches. She also suffers from Raynaud's phenomenon. Skin biopsy shows dense, patchy, dermal lymphocyte infiltration, epidermal basal layer is damaged and hyperkeratosis is also present. What is the most likely diagnosis?

- a. Basal cell carcinoma
- b. Squamous cell carcinoma
- c. Discoid lupus erythematosus
- d. Plaque like psoriasis
- e. Scleroderma

17. A 10-year-old boy presented with history of a thin-walled bulla on face which ruptured leaving a golden crust on an erythematous base. The most likely diagnosis is:

- a. Impetigo
- b. Erythrasma
- c. Ecthyma
- d. Folliculitis
- e. Furuncle

ANSWER KEYS

1. GONORRHEA

1.B 2.C

2. VITILIGO

1.C 2.A

3. CUTANEOUS AIDS / HIV

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

4. DERMATITIS

1.E 2.E 3.D 4.E

5. PITYRIASIS ROSEA

1.D

6. PSORIASIS

1.A 2.A 3.E

7. MIX

1.D 2.C 3.E 4.D 5.C
6.E 7.A 8.D 9.E 10.D

11.B 12.A 13.C 14.A 15.B
16.C 17.A

PSYCHIATRY

1. BIPOLAR DISORDER

1. Which one of the following indicates lithium toxicity?

- a. Coarse tremor
- b. Polyuria
- c. Vomiting
- d. T-wave inversion on the ECG
- e. Hypothyroidism

2. Drug of choice for biopolar disorder is:

- a. Lithium
- b. Amiodarone
- c. Tricyclic antidepressant
- d. Anticonvulsants
- e. Benzodiazepines

2. DELUSIONAL DISORDER

1. A 19-year-old boy presents to the psychiatrist for the 1st time with a firm and unshakable belief that he is being followed by terrorists who are plotting against him. What is the single best term for this man's condition?

- a. Delusion of persecution
- b. Delusion of grandeur
- c. Delusion of control
- d. Delusion of reference
- e. Delusion of nihilism

2. In clinical practice it is often difficult to differentiate between obsession and delusion. Which of the following indicates that the patient suffers from obsessive-compulsive disorder rather than delusional disorder?

- a. Better occupational functioning
- b. The thought content is less bizarre
- c. No other psychotic phenomenon as hallucinations
- d. The patient believes that the origin of thoughts is from outside his/her own mind
- e. The patient tries to resist his thoughts

3. DEPRESSION DISORDERS

1. A 65 years old woman says she died 3 months ago and is very distressed that nobody has buried her. When she outdoors, she hears people say that she is evil and needs to be punished. What is the most likely explanation for her symptoms?

- a. Schizophrenia
- b. Mania
- c. Psychotic depression
- d. Hysteria
- e. Toxic confusional state

2. Which of the following is more likely to indicate depression in older people compared with a young age group?

- a. Suicidal thoughts
- b. Hypochondriasis
- c. Loss of interest or pleasure in things
- d. Poor self-care
- e. Insomnia

4. OCD

1. A 32 years old man has obsessive compulsive disorder. What is the best treatment option for him?

- a. CBT
- b. SSRI
- c. TCA
- d. MAO inhibitors
- e. Reassurance

2. The drug of choice for obsessive compulsive disorder is:

- a. Benzodiazepine
- b. Tricyclic antidepressants
- c. Selective reuptake inhibitors (SSRI)
- d. Quinolones
- e. Penicillin

3. A young student is seen by dermatologist with severe dermatitis of his hands. He has been frequently washing his hands with strong antiseptic solutions 10 times a day. He believes they are not clean. This is compatible with diagnosis of:

- a. Depression
- b. Bipolar disorder
- c. Mania
- d. Obsessive compulsive behavior
- e. Schizophrenia

5. SCHIZOAFFECTIVE DISORDER

1. You are asked to see a 48-years-old obese lady in the outpatient department. She has a recent diagnosis of type 2 diabetes as well a long standing diagnosis of schizoaffective disorder. Which one of the following medications is most likely to be significantly contribution to her weight gain?

- a. Haloperidol
- b. Olanzapine
- c. Fluoxetine
- d. Zopiclone
- e. Carbamazepine

6. ANXIETY DISORDER

1. Which of the following is more likely to indicate depression in older people compared with a younger age group?

- a. Suicidal thoughts
- b. Hypochondriasis
- c. Loss of Interest or pleasure in things
- d. Poor self-care
- e. Insomnia

2. The following conditions can mimic anxiety disorder:

- a. Hyperthyroidism
- b. Pheochromocytoma
- c. Paroxysmal arrhythmia
- d. Hypoglycemia
- e. All of them

3. A 33-years-old female returned to work after having second child. She is having difficult in concentrating because she keeps wondering if her child is okay and whether or not he is adjusting well to her night, she has difficult time falling asleep and constantly worries about everything. What is the condition she suffering from?

- a. Acute stress disorder
- b. adjustment disorder with anxiety
- c. Post traumatic stress disorder
- d. Generalized anxiety disorder
- e. Obsessive compulsive disorder

7. MIX

1. Mr B is a 69-years-old male who is brought to accident and emergency in an ambulance. He has a 3-years history of dementia and has been cared for by his wife, who is having increasing difficulty coping with his behavior. Mr.B is troubled by visual

hallucinations but this has led to severe parkinsonian features. What is the most likely cause of his dementia?

- a. Alzheimer's disease
- b. Lewy body disease
- c. Vascular disease
- d. Alcohol
- e. Frontotemporal dementia

2. Which of the following electrolyte abnormalities is associated with bulimic patients?

- a. Metabolic acidosis
- b. Metabolic alkalosis
- c. Respiratory acidosis
- d. Respiratory alkalosis
- e. Normal electrolytes

3. A 45-years-old man with a 20-year history of drinking about 15 unite of alcohol every day decides to stop drinking. It makes a clean break and stops suddenly. Three days later his wife brings him to the emergency department because he agitated and disoriented, he says that he can see small animals or insects coming menacingly towards him. He has marked tremors, sweating, tachycardia and pyrexia. What is the diagnosis?

- a. Meningitis
- b. Catatonic schizophrenia
- c. Delirium tremens
- d. Drug abuse in addition to alcohol
- e. Derealization

ANSWER KEYS**1. BIPOLAR DISORDER**

- 1.A
- 2.A

2. DELUSIONAL DISORDER

- 1.A
- 2.E

3. DEPRESSION DISORDERS

- 1.C
- 2.B

4. OCD

- 1.B
- 2.C
- 3.D
- 4.E

6. ANXIETY DISORDER

- 1.B
- 2.E
- 3.E

7. MIX

- 1.B
- 2.B
- 3.C

RHEMATOLOGY

1.	ARTHRITIS	9
2.	OSTEOPOROSIS / OSTEOMALACIA	10
3.	VASCULITIS	10
4.	GOUT / ARTHRITIS	12
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6.	MIX	18
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1. ARTHRITIS

1. A 45-year-old woman with long-standing, well-controlled rheumatoid arthritis develops severe pain and swelling in the left elbow over 2 days. She is not sexually active. Arthrocentesis reveals cloudy fluid. Synovial fluid analysis reveals greater than 100,000 cells/mL; 98% of these are PMNs. What is the most likely organism to cause this scenario?

- a. Streptococcus pneumoniae
- b. Neisseria gonorrhoeae
- c. Escherichia coli
- d. Staphylococcus aureus
- e. Pseudomonas aeruginosa

2. A long standing rheumatoid arthritis patient presented with history of recurrent sore throat. Examination showed splenomegally. His labs are as follow. HB 9 gm/dl, TLC 3000/cubic mm, Platelets 50,000, what is the most probable diagnosis?

- a. Behcet's syndrome
- b. Felty's syndrome
- c. Kaplan's syndrome
- d. Rieter's syndrome
- e. Sjogren's syndrome

3. 55 year old diabetic lady presented with three months history of right shoulder pain and almost completed loss of shoulder moment including rotation. Which of the following is not a treatment option?

- a. High doses of NSAID,S
- b. Intra articular injections of local anaesthetic
- c. Systemic steroids
- d. Intra articular injections of local steroid
- e. Arthroscopic release

Q.4. A 27 year old young man is having ankylosing spondylitis. All are possible regarding him except?

- a. Backache is more in morning
- b. Can have aortic regurgitation
- c. Can have uveitis
- d. Can have apical fibrosis
- e. Can't have extra-articular symptoms.

Q.5. A 40 year old lady has bilateral symmetrical arthritis of small joints of hand with morning stiffness. Which is the most diagnostic serological marker for this patient?

- a. ANA
- b. ANCA
- c. ACE level
- d. Serum Uric acid
- e. Anti-CCP

6. A 30 Year old man presented with pain and swelling of small joints of hand with morning stiffness for last 2 months. What are most suitable sets of investigations for diagnosis?

- a. actor, x-ray hand, FBC
- b. RA factor, Anti-CCP, x-ray hand
- c. RA factor, CRP, ESR
- d. my hand, CRP, uric acid level
- e. Anti-CCP, ESR, FBC,

7. A 20 year old tennis player with redness of left eye was referred from ophthalmology OPD for work up of backache. O/E he is having difficulty in bending forward and aortic regurgitation murmur. What is the most likely diagnosis?

- a. Reactive arthritis
- b. Ankylosing spondylitis
- e. Rheumatoid arthritis
- c. Psoriatic arthritis
- d. Gout

8. A 35 years old man presented with chronic backache, eye redness and pain behind left ankle.

Which of the following is most likely to be positive?

- a. HLA-B 25 b. HLA-B 30 c. HLA-B27
- d. HLA-DRQ e. HLA-BR6

9. A 25-years-old man has been referred to theumatology clinic with multiple painful stiff joints and uveitis. He also complains of ulcers on his penis and mouth. What is the diagnosis?

- a. Rheumatoid Arthritis b. Systemic Sclerosis
- c. SLE d. Reiter's Syndrome
- e. Psoriatic Arthritis

10. A 54-years-old woman presents to her GP with swollen painful hands and feet, which are stiffer in the mornings. On examination, there are signs of ulnar deviation and subluxation at the metacarpophalangeal (MCP) joints. Which disease the patient is suffering from?

- a. SLE b. Osteomyelitis
- c. Rheumatoid Arthritis d. Osteoarthritis
- e. Gout

11. A 40-year-old woman has seropositive rheumatoid arthritis. Six months ago, she had several hours of morning stiffness despite optimal salicylate therapy, and gold therapy was begun. Although other joints have improved substantially, she has had persisting synovitis in the dor-sum of the right wrist. Four weeks ago, synovial fluid from the right wrist revealed 8000 white blood cells/mm³. Cultures for bacteria, mycobacteria, and fungi showed no growth. Physical examination now shows boggy synovial swelling over the right wrist, unchanged over four weeks.

Which of the following is the most appropriate next step?

- a. Continue the current regimen
- b. Continue current regimen and inject the right wrist with triamcinolone
- c. Discontinue gold and begin penicillamine
- d. Perform a biopsy of the synovium of the right wrist
- e. Discontinue gold and start methotrexate

2. OSTEOPOROSIS / OSTEOMALACIA

1. A 35 years old female presented with pain in lower back and thigh area of 4 months duration, which is gradually increasing in intensity. She has also difficulty in climbing stairs. On examination she had waddling gait and proximal muscle weakness. Gluteal and thigh muscles were tender. Investigation showed low calcium, low phosphate and high alkaline phosphatase. X-ray of the pelvis showed osteopenia. What is the most likely diagnosis in this patient?

- a. Fibromyalgia
- b. Hypothyroidism
- c. Osteoporosis
- d. Osteomalacia e. Polymyositis

Q. 2. 37 year old Afghani lactating mother multiparous presented with difficulty in getting up from sitting position. What is the most likely diagnosis?

- a. Osteoporosis b. Fibromyalgia
- c. SLE d. Osteomalacia
- e. Osteoarthritis

3. VASCULITIS

1. A 78 years old man presents with a 2-month history of fever and intermittent abdominal pain. He develops peritoneal signs and at laparotomy is found to have an area of infarcted bowel. Biopsy shows inflammation of small to medium-sized muscular arteries. What is the most likely diagnosis?

- a. Temporal arteritis
- b. Wegener granulomatosis
- c. Takayasu arteritis
- d. Polyarteritis nodosa
- e. Henoch-Schönlein purpura

2. An elderly male presents with pain in his shoulders and hips. Temporal arteries are tender to palpation. ESR is 105 mm/L. What is the most likely diagnosis?

- a. Cryoglobulinemic vasculitis
- b. Temporal arteritis
- c. Wegener granulomatosis
- d. Takayasu arteritis
- e. Polyarteritis nodosa

3. A 45 years old man has wheezing for several weeks and now presents with severe tingling of the hands and feet. There is wasting of the intrinsic muscles of the hands and loss of sensation in the feet. WBC is 13,000 with 28% eosinophils. What is the most likely diagnosis?

- a. Churg-Strauss syndrome
- b. Wegener granulomatosis
- c. Takayasu arteritis
- d. Polyarteritis nodosa
- e. Henoch-Schonlein purpura

4. A 50 years old male presented with a 6 months history of early morning stiffness of small joints of both hands. On examination he has symmetrical small joint arthritis. His RF and anti CCP Abs are positive. He is diagnosed as a case of Rheumatoid arthritis and started on Leflunamide and Methotrexate. Two months later he presents with epistaxis and with a sore throat. Examination is unremarkable. Rb = 7g / d * | TLC=800/cmm, DLC= Neutrophils = 25% and Lymphocytes = 65% Eosinophils = 5% and = 5% 1 Platelet count = 2560 / c * mm . What is likely to have happened?

- A. Leflunamide induced bone marrow suppression
- b. Methotrexate induced bone marrow suppression
- c. Felty's syndrome
- d. Anemia of chronic disease
- e. Folate deficiency secondary to methotrexate

5. An elderly male presents with pain in his shoulders and hips. Temporal arteries are tender to palpation. ESR is 105 mm/L, what is the most likely diagnosis?

- a. Cryoglobulinemic vasculitis
- b. Temporal arteritis
- c. Wegener Granulomatosis
- d. Takayasu arteritis
- e. Polyarteritis Nodosa

6. A 60 years old woman presents to medical OPD with history of fatigue, pain and stiffness in proximal muscles of both upper and lower limbs. She also reports headache in temporal area. His vision has deteriorated in her left eye for the last 2 weeks. ESR 50 mm 1st hour, CRP is elevated, rheumatoid factor is negative. Which of the following drug should be started immediately to this patient?

- a. IV immunoglobuline
- b. NSAID
- c. Plasmaphereses
- d. Prednisilone
- e. Sulphasalazina

7. A 20 year old man complains of urethral discharge and lesions on his palms and penis. He also complains of itchy eyes and pain in his right knee. On examination you note crusty scaling papules on his palms and glans penis. Subungual cornified material is seen but no nail pitting. The most likely diagnosis is:

- a. Gonorrhea infection
- b. Rheumatoid Arthritis
- c. Behcet's syndrome
- d. Chlamydia infection
- e. Psoriasis

8. A Which of the following is most likely to be observed in a patient with mixed essential cryoglobulinemia?

- a. Glomerulonephritis
- b. Palpable purpura
- c. Cold intolerance
- d. Evidence of prior hepatitis B infection
- e. Normal serum complement levels

9. Each of the following is characteristic of Behcet's disease EXCEPT

- a. meningoencephalitis
- b. erosive arthritis
- c. mucosal ulceration of the ileum
- d. recurrent thrombophlebitis
- e. painless vaginal ulcers

74. A 78 years old man presents with a 2-month history of fever and intermittent abdominal pain. He develops peritoneal signs and at laparotomy is found to have an area of infarcted bowel. Biopsy shows inflammation of small to medium-sized muscular arteries. What is the most likely diagnosis?

- a. Femoral arteritis
- b. Wegener granulomatosis
- c. Takayasu arteritis
- d. Polyarteritis nodosa
- e. Henoch-Schonlein purpura

10. An elderly male presents with pain in his shoulders and hips. Temporal arteries are tender to palpation. ESR is 105 mm/L. What is the most likely diagnosis?

- a. Cryoglobulinemic vasculitis
- b. Temporal arteritis
- c. Wegener granulomatosis
- d. Takayasu arteritis
- e. Polyarteritis nodosa

11. A 45 years old man has wheezing for several weeks and now presents with severe tingling of the hands and feet. There is wasting of the intrinsic muscles of the hands and loss of sensation in the feet. WBC is 13,000 with 28% eosinophils. What is the most likely diagnosis?

- a. Churg-Strauss syndrome
- b. Wegener granulomatosis
- c. Takayasu arteritis
- d. Polyarteritis nodosa
- e. Henoch-Schonlein purpura

12. A 20 years old woman competitive swimmer notes that her arms now ache after swimming one or two laps and she is unable to continue. She has had night sweats and 10-lb weight loss. Pulses in the upper extremity are difficult to palpate. What is the most likely diagnosis?

- a. Churg-Strauss syndrome
- b. Henoch-Schonlein purpura
- c. Polyarteritis nodosa
- d. Takayasu arteritis
- e. Wegener granulomatosis

4. GOUT ARTHRITIS

1. A 76-year-old man has a severely painful left ankle. It has come on rapidly over the last 3 days such that he can no longer put weight on it. He has hypertension and says he has been started on a thiazide diuretic within the last 3 months. His foot is very swollen and erythematous. What is the most likely diagnosis?

- a. Gout
- b. Osteoarthritis
- c. Pseudo-gout
- d. Reactive arthritis
- e. Septic arthritis

2. A 30 year old woman has a painful and swollen right ankle. It has developed gradually over the last week or so. She has suffered flare-ups of the same joint at regular intervals over the last 18 months. The first attack occurred within a month of a urinary tract infection, but otherwise she has remained well. What is the most likely diagnosis?

- a. Gout
- b. Osteoarthritis
- c. Psoriatic arthritis
- d. Reactive arthritis
- e. Septic arthritis

3. A 45 years old woman with long standing well controlled rheumatoid arthritis develops severe pain and swelling in the left elbow over 2 days. She is not sexually active. Arthrocentesis reveals cloudy fluid.

Synovial fluid analysis reveals greater than 10,000 cell/mL, 98% of these are PMNs. What is the most likely organism to cause this scenario?

- a. Streptococcus pneumonia
- b. Neisseria gonorrhoeae
- c. Escherichia coli
- d. Staphylococcus aureus
- e. Pseudomonas aeruginosa

4. A 65 year old man develops the onset of severe knee pain over 24 hours. The knee is red, swollen and tender. The patient does not have fever or systemic symptoms. He has a history of diabetes mellitus and cardiomyopathy. Definitive diagnosis is best made by which of the following?

- a. Serum uric acid
- b. Serum calcium
- c. Arthrocentesis and identification of positively birefringent rhomboid crystals
- d. Rheumatoid factor
- e. ANA

5. A 76 years old man has a severely painful left ankle. It has come on rapidly over the last 3 days such that he can no longer put weight on it. He has hypertension and says he has been started on a thiazide diuretic within the last 3 months. His foot is very swollen and erythematous. What is the most likely diagnosis?

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6. A 30 years old woman has a painful and swollen right ankle. It has developed gradually over the last week or so. She has suffered flare ups of the same joint at regular intervals over the last 18 months. The first attack occurred within a month of a urinary tract infection, but otherwise she has remained well. What is the most likely diagnosis?

- a. Gout

- b. Osteoarthritis
- c. Pseudo gout
- d. Reactive arthritis
- e. Septic arthritis

7. A 35 years old man presented to medical OPD with swelling and pain in right joint of 1 week duration. He had history of dysentery 3 weeks ago. His eyes were also congested and the right knee joint was swollen and tender. ESR was 45mm 1st hour. Rheumatoid factor was negative. Urine RE showed mucoid thread. What is the most likely diagnosis

- a. Ankylosing spondylitis
- b. Osteoarthritis
- c. Psoriatic arthritis
- d. Reactive arthritis
- e. Septic arthritis

8. A 30 years old man presented to medical OPD with a swelling and pain in right big toe and right ankle joint of 5 days durations. He was on anti TB drugs for pulmonary Koch started 3 months ago. Examination showed swelling of right ankle and right big toe. His ESR was 40 mm 1st hour. Rheumatoid factor was negative. Uric acid 8.5 mg/dl, HB 10.4 g/dl, TLC 11500. Which of the following drug have caused his joint problems?

- a. Ethambutol
- b. Isoniazide
- c. Pyrazinamide
- d. Rifampicin
- e. Streptomycin

9. A 30 years old male presented with sudden onset pain, swelling and redness of left knee joint. There is no history of trauma, eye redness or dysuria. His synovial fluid analysis is follow. TLC 80,000 (70% neutrophils, 30% Lymphocytes), protein 3gm/dl. What is the most probable diagnosis

- a. Osteoarthritis
- b. Rheumatoid arthritis

- c. Gout
- d. Hemochromatosis
- e. Septic arthritis

10. A 47 years old diabetic presented with one day history of right knee pain and swelling. On examination right knee swollen hot and tender.

Which of the following will be the definitive diagnostic investigation of choice in this patient?

- a. X ray knee
- b. Blood culture
- c. Joint aspiration
- d. Total leucytic count
- e. Serum uric acid

11. What is the investigation of choice for a 50 year old business man who presented with pain, redness and swelling of left first metatarsophalangeal joint in the morning. He attended a wedding ceremony last. He is afebrile and normoglycemic.

- a. x-ray left foot
- b. RA factor
- c. Blood culture
- d. Polarize light microscopy of synovial fluid
- e. Serum uric acid level

12. A 72-year-old man presents with an acutely painful right knee. On examination, he had a temperature of 37°C with a hot, swollen tight, knee. Of relevance amongst his investigations, was his white cell count which was $12.6 \times 10^9/L$ 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. Gout
- b. Psoriatic monoarthropathy
- c. Pseudogout
- d. Rheumatoid arthritis
- e. Septic arthritis

13. A 22 year old fit and well man presents to his GP with a 2 days history of left ankle pain and swelling. He has no history of trauma and is generally well in

himself. He had diarrhoea for 2 days while on holiday in Chitral 3 weeks ago. On examination Temp=98F, BP 120/80 mm Hg. General and systemic examination was unremarkable. Musculoskeletal examination reveals a tender, swollen left ankle.

- a. Reactive arthritis
- b. Ankylosing spondylitis
- c. Psoriatic arthritis
- d. Gout
- e. Rheumatoid arthritis

14. A 55 years old woman with a history of type 2 diabetes presents with right shoulder pain. On examination, there are restricted passive movements of right shoulder in all directions. What is the most likely diagnosis?

- a. Dermatomyositis
- b. Adhesive capsulitis
- c. Avascular necrosis
- d. Diabetic amyotrophy
- e. Brachial neuritis

15. A 60 years old female has pain and stiffness in her right hip joint and long standing pain of both knees. Pain is not severe in the morning but increases as the day progresses. She has noticed some nodules in her hands. What is the most probable diagnosis?

- a. Rheumatoid Arthritis
- b. Osteoarthritis
- c. Gout
- d. Pseudogout
- e. Multiple myeloma

16. A 55-years-old man presents to A&E with fever and an exquisitely painful right knee. On examination his right knee is red, hot and swollen. Purulent fluid is aspirated from the joint. Which disease the patient is suffering from?

- a. Septic Arthritis
- b. Osteomyelitis
- c. Gout
- d. Osteoarthritis
- e. Psuedogout

17. A 55 years old man presents to A&E with fever and an exquisitely painful right knee. On examination his right knee is red, hot and swollen. Purulent fluid is aspirated from the joint. What can be the diagnosis out of the following options:-

- a. Septic Arthritis b. Osteomyelitis
c. Psuedogout d. Osteoarthritis e. Gout

18. A 64 years old patient who has recently started on medication for hypertension presents with a very painful, hot, swollen metatarsophalangeal joint. What can be the diagnosis:-

- a. Septic Arthritis b. Osteomyelitis
c. Rheumatoid Arthritis d. Osteoarthritis
e. Gout

19. A 28-year-old man has an eight-month history of pain and swelling of the right knee without antecedent trauma. Arthrocentesis on three separate occasions yielded bloody, nonclotting synovial fluid; white blood cell count was less than 1000/mm³. Cultures of synovial fluid for bacteria, fungi, and mycobacteria showed no growth. The patient is otherwise well and has no history of a bleeding diathesis. Physical examination now shows a moderately swollen right knee which is not tender, the examination is other-wise normal. The knee is stable and has a nearly full range of motion. Which of the following is most likely to be of value in establishing a diagnosis?

- a. Arthrogram of the right knee
b. Tuberculin skin test
c. Test for HLA-B27
d. Determination of bleeding time
e. Determination of partial thromboplastin time

20. TL A 70 year-old man complains of fever and pain in his left knee. Several days previously he suffered an adousion of his knee while working in his garage. The knee is red, warm and swollen. An arthrocentesis is performed, which shows 200,000 leukocytes/ μ L and a glucose of 20 mg/dL. No crystals are noted. Which of the following is the most important next step?

- a. Gram stain and culture of joint fluid
b. Urethral culture
c. Uric acid level

- d. Antinuclear antibody
e. Anti-neutrophil cytoplasmic antibody

21. A 45-year-old woman with long-standing, well-controlled rheumatoid arthritis develops severe pain and swelling in the left elbow over 2 days. She is not sexually active. Arthrocentesis reveals cloudy fluid. Synovial fluid analysis reveals greater than 100,000 cells/mL; 95% of these are PMNs, What is the most likely organism to cause this scenario?

- a. Streptococcus pneumoniae
b. Neisseria gonorrhoeae
c. Escherichia coli
d. Staphylococcus aureus
e. Pseudomonas aeruginosa

22. A 63-year-old man develops the onset of severe knee pain over 24 hours. The knee is red, swollen and mder. The patient does not have fever or systemic symptoms. He has a history of diabetes mellitus and cardumyopathy. Definitive diagnosis is best made by which of the following?

- a. Serum uric acid
b. Serum calcium
c. Arthrocentesis and identification of positively birefringent theenboid crystals
d. Rheumatoid factor e. ANA

5. CONNECTIVE TISSUE DX

1. A 30 years old patient presented with 2 months history of aches and pains involving her small joints of the hands. She has also noticed that sun exposure tends to irritate her. On examination she is malar rash. Her urine R/E show albumin =++, sugar nil, RBC casts +++. Which test will accurately diagnose the condition?

- a. ANA
b. Anti RNP abs
c. Anti ds DNA
d. Antl SCL-70 abs
e. Anti histone abs

2. A 45 years old female presented with a one month history of cough that is productive at times and dry at other times. History of Raynaud's phenomenon is also there. On examination, he has finger clubbing and auscultation of the chest reveals fine end inspiratory crackles bilaterally. CXR shows bilateral reticulonodular shadows. What is the most likely diagnosis?

- b. Extrinsic Allergic alveolitis
- b. Asbestosis
- c. Interstitial lung disease
- d. Pneumoconiosis
- e. Systemic sclerosis

3. A 30 years old patient presented with 2 months history of aches and pains involving her small joints of the hands. She has also noticed that sun exposure tends to irritate her. On examination she has malar rash. Her urine R/E shows albumin=+++ , sugar Nil, RBC casts=+++ . Which test will accurately diagnose the condition?

- a. ANA
- b. Anti RNP Abs
- c. Anti ds DNA
- d. Anti SCL-70 Abs
- e. Anti histone Abs

4. A 70 years old woman presents with recurrent episodes of parotid swelling. She complains of difficulty in talking and speaking and her eyes feel gritty on waking in the morning. What is the single most likely diagnosis?

- a. C1 esterase deficiency
- b. Chron's disease
- c. Mumps
- d. Sarcoidosis
- e. Sjogrens syndrome

5. A 38 years old female presents with history of arthrogia and painful oral ulcer. On examination she had baldness and butterfly rash on face. Urine RE showed RBC 20-30/HPE, pus cells 15/HPE, albumin++

an granular cast. Which of the following test is most specific for the diagnosis?

- a. Anti double standard DNA
- b. ANF
- c. CRP
- d. ESR
- e. Rheumatoid factor

Q.6. A 30 Year old man presented with 8 months history recurrent uveitis low back pain and stiffness especially tady morning. In examination the schober test is positive. Which of the following is not in diagnostic criteria?

- a. HLA-B27
- b. Morning stiffness > min
- c. Improvement of back pain with exercise but not rest
- d. Awakening because of back pain during second half of the night only
- e. 21 Alternating buttock pain

7. An 11 Year old boy presented with 2 weeks history of increasing generalized body swelling and facial puffiness. his B.P of 90/70 mm Hg, pitting edema Urine R/E shows 4+ albumin, urea and creatinine and tlectrolyte are normal What's the best appropriate therapy for this patient.

- a. Azathioprine
- b. Cyclosporine
- c. Peritoneal Dialysis
- d. Prednisolone 1mg/kg/day
- e. Observe for the Next 3 weeks only

8. A 33 year old Patient with SLE presented with Increasing pedal edema and hypertension. Urine R/E shows 2+ Albumin which serological marker would you advice to predict renal involvement in this patient?

- a. ANA-
- b. dS-DNA
- c. Compliment Levels
- d. Urine for R.B.C cast
- e. Anti RO Antibodies

Q.9. A 42 Year old patient with SLE gives birth to a child with complete heart block. Which of the following serological marker would be positive in mother?

- a. Anti-Ra
- b. Anti-Jo
- c. Anti-Ro
- d. Anti-SCL 70
- e. Anti-RNP

10. A 26 year old lady has SLE. All are true regarding her except?

- a. Nephropathy
- b. Facial rash
- c. Alopecia
- d. Hirsutism
- e. Photosensitivity

11. Which of the following drugs is most likely to cause systemic lupus-like syndrome?

- a. Baclofen
- b. Isoniazid
- c. Methotrexate
- d. Procainamide
- e. Sulfasalazine

12. A 25 year old woman with chronic dry cough presents to the medical unit with a 2 weeks history of swollen ankles and a rash on her legs. On examination, she has bilateral ankle effusions and erythematous tender nodules on her shins. CXR is showing bilateral lymphadenopathy. Which investigation is most useful to aid your diagnosis?

- a. Sputum AFB
- b. Reactive protein
- c. Pulmonary function tests
- d. Rheumatoid factor
- e. Serum ACE level

13. A 45-years-old woman complains of cold numb fingers and difficulty it swallowing. On examination she has tight skin, thickening of the fingers and telangiectasia. What is your diagnosis?

- a. Rheumatoid Arthritis
- b. Systemic Sclerosis
- c. Sjogren's Syndrome
- d. Reiter's Syndrome
- e. Psoriatic Arthritis

14. A 45-years-old woman presents with dryness in the eyes and mouth. Her Schirmer's test is positive. What is the diagnosis?

- a. Primary Raynaud's disease
- b. Systemic Sclerosis
- c. Sjogren's Syndrome
- d. Reiter's Syndrome
- e. Psoriatic Arthritis

15. Which is the drug of choice for a 65 years old woman suffering from polymyalgia rheumatica.?

- a. Methotrexate
- b. Allopurinol
- c. Oral prednisolone
- d. Fusidic Acid
- e. Exercise and physiotherapy

16. A 45-year-old woman complains of cold numb fingers and difficulty in swallowing. On examination she has tight skin, thickening of the fingers and telangiectasia. What is the diagnosis?

- a. Rheumatoid Arthritis
- b. Systemic Sclerosis
- c. Sjogren's Syndrome
- d. Reiter's Syndrome
- e. Psoriatic Arthritis

17. The most useful initial screening test for SLE is:

- a. Anti-ds DNA antibody
- b. Anti-nuclear antibody
- c. Anti-cardiolipin antibody
- d. C3 and C4 levels
- e. CRP

18. Each of the following is a roentgenographic feature of chondrocalcinosis EXCEPT

- a. linear calcification of the symphysis pubis
- b. narrowing of the radiocarpal joint
- c. juxta-articular demineralization
- d. knee involvement restricted to the patellofemoral compartment
- e. osteophytosis

19. You are asked to see a 35-year-old man who developed proximal muscle weakness four months ago, associated with marked elevations in muscle enzymes. A muscle biopsy was consistent with

polymyositis. Prednisone, 60 mg daily, was prescribed, and over the next six weeks all muscle enzymes became normal. Initially there was a substantial improvement in strength. Over the past two months, however, the proximal muscle weakness has become progressively worse despite continuation of prednisone. Muscle enzymes have stayed normal. On physical examination, the patient has a cushingoid appearance; there is significant proximal muscle weakness, particularly of the lower extremities. Which of the following is the most appropriate next step?

- Decrease the prednisone dose to 40 mg daily
- Continue prednisone, 60 mg daily, and begin azathioprine, 2 mg/kg/day
- Continue prednisone, 60 mg daily, and begin methotrexate, 10 mg orally every week
- Increase the prednisone dose to 80 mg daily
- Continue prednisone, 60 mg daily, and begin cyclophosphamide 2 mg/kg/day

6. MIX

1. A 52-year-old man has a five years history of intermittent wrist pain and swelling, as well as lower back pain and stiffness. He presents with the complaint of diarrhea and weight loss for the past 3 months. What is the most likely diagnosis?

- Hemochromatosis
- Hemophilia
- Charcot arthropathy
- Reactive arthritis (Reiter syndrome)
- Whipple disease

2. A 52 years old man has a five years history of intermittent wrist pain and swelling, as well as lower back pain and stiffness. He presents with the complaint of diarrhea and weight loss for the past 3 months. What is the most likely diagnosis?

- Hemochromatosis
- Haemophilia
- Charcot arthropathy
- Reactive arthritis (reiter syndrome)
- Whipple disease

3. A 16 years old female presented to medical OPD with history of pain abdomen and in her right knee joint. On examination right knee was swollen and tender. She had palpable rash over buttock and thigh area. Urine RE showed RBC 18-20/HPE, albumin++ and granular cast. IgA antibody was detected in the blood vessel wall.

What is the most probable diagnosis in this case?

- Churg-Strauss vasculitis
- Henoch-Schönlein's purpura
- Polyarteritis nodosa
- Temporal arthritis
- SLE

4. 40 years old lady presents with diffuse muscle pain & weakness. She is being treated for hypertension & dyslipidaemia. Her creatine phosphokinase (CPK) is 400 IU/L (normal <170 IU/L), which of the following drug is most likely to have caused this.

- Atenolol
- Captopril
- Hydrochlorothiazide
- Nifedipine
- Simvastatin

5. A 35 years old man patient of scleroderma presented with difficulty in swallowing. Which of the following is most appropriate test at this stage?

- CT-chest
- Endoscopy
- X-ray chest
- Barium swallow
- Ultrasound abdomen

6. A 45 year old man patient of Sjögren syndrome presented with enlarged left cervical lymph node. Which is the most likely neoplasm responsible for this presentation?

- Gastric carcinoma
- Lymphoma
- Bronchogenic carcinoma
- Chronic myeloid leukemia
- Chronic lymphocytic leukemia

RHEMATOLOGY

7. A 60-year-old woman presents with constant backache. Her ESR and serum calcium are markedly elevated. Which of the following diseases best explain these two lab investigations?

- a. Spinal Stenosis
- b. Ankylosing Spondylitis
- c. Multiple myeloma
- d. Polymyalgia Rheumatica
- e. Psoriatic Arthritis

8. A 66 years old man was assessed for total right knee joint replacement. Following are the results. RBS=200 mg/dl, ALT=72u/l, Bilirubin=1.8mg/dl, s.calcium=11mg/dl, Serum Ferritin=290nmol (6-120nmol/L. Transferrin saturation=98%, X-rays show advanced degenerative changes. What is the likely diagnosis?

- a. Acromegaly
- b. Calcium pyrophosphate arthropathy
- c. Chronic neuropathic arthritis
- d. Osteoarthritis
- e. Hemochromatosis

ANSWER KEY

1. ARTHRITIS

- 1.D 2.B 3.B 4.E 5.E 6.B
- 7.B 8.C 9.D 10.C 11.B

2. OSTEOPOROSIS / OSTEOMALACIA

- 1.D 2.D

3. VASCULITIS

- 1.D 2.B 3.A 4.B 5.B
- 6.D 7.C 8.B 9.B 10.D
- 11.B 12.A 13.D

4. GOUT / ARTHRITIS

1.A	2.D	3.D	4.C	5.A	6.D
7.D	8.C	9.E	10.C	11.D	12.C
13.A	14.B	15.B	16.A	17.A	18.E
19.A	20.A	21.D	22.C		

5. CONNECTIVE TISSUE DX

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

6. MIX

- 1.E 2.E 3.B 4.E
- 5.D 6.B 7.C 8.E

HEMATOLOGY

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1. ANEMIAS

1. A 60 years old man develops numbness of the feet. On physical examination he has lost proprioception in the lower extremities and is noticed to have a wide based gait with a positive Romberg sign. His past medical history includes hypertension, hypothyroidism and previous gastrectomy for gastric cancer. What is the most likely cause of his symptom?

- a. Folic acid deficiency
- b. vitamin B12 deficiency
- c. vitamin K deficiency
- d. Iron deficiency
- e. Thiamine deficiency

2. Which statement concerning Hereditary spherocytosis is correct?

- a. Many cases go undetected until adulthood
- b. The spherocytes of hereditary spherocytosis can be distinguished from the spherocytes of autoimmune hemolytic anemia by the osmotic fragility test?
- c. splenomegaly is rarely present
- d. splenectomy usually eliminates spherocytes from the peripheral blood smear
- e. spherocytes usually comprise 10% or more of the red blood cells on the peripheral smear

3. What are the most common type of antibodies seen in pernicious anemia?

- a. Vitamin B12 receptor

- b. Gastric parietal cell antibodies
- c. jejuna mucosa antibodies
- d. Intrinsic factor antibodies
- e. vitamin B12 Antibodies

4. A 30 years old female patient presented with one month history of numbness and tingling sensations in both the hands and feet. On physical examination the patient is anaemic with distal sensory loss and absent ankle jerks. Parental administration of which of the following will lead to the reversal of this patient's complaints.

- a. Thiamine
- b. calcium gluconate
- c. Niacine
- d. Vitamin B12
- e. Ascorbic acid

5. All are features of a plastic anemia EXCEPT?

- a. Low hemoglobin
- b. Massive splenomegaly
- c. low platelet
- d. low reticulocyte count
- e. Hypocellular bone marrow

6. A 22 year old girl presented with easy fatigability. Her father was diagnosed to have recurrent anemia. Investigation showed Hemoglobin 8.5 mg/dl, normal WBC and platelets, raised bilirubin but normal ALT and alkaline phosphatase. Ultrasound scan showed enlarged spleen and gallstones. The likely diagnosis is:

- a. pernicious anemia
- b. G6PD deficiency
- c. Myelofibrosis
- d. Hereditary spherocytes
- e. Lymphoma

HEMATOLOGY

7. A 60 years old female with a history of Auto immune hypothyroidism presented with weakness she is also complaining of tingling and her fingers and toes. On examination she is pale and has loss of vibration and position sense in her feet. Her Hb is 9 gm/dl, TLC, DLC, platelet count, serum folate, LFT's, RFT's and TFT's normal (taking thyroxine 200 microgram per day) There is no history of diarrhea or any surgery in the past. Her MCV is 120. Most likely cause for her anemia is:

- a. Autoimmune hemolytic anemia
- b. Anemia of chronic disease
- c. Folate deficiency anemia
- d. Iron deficiency anemia
- e. pernicious anemia

8. A 70 years old woman has been in long standing poor health with severe diabetes mellitus and rheumatoid arthritis. Her physician notes that she appears pale and orders a hematocrit, which shows a result of 35%. Examination of the blood smear reveals a microcytic anemia. The physician is considering a differential diagnosis of iron deficiency anemia versus anemia of chronic disease. Which of the following laboratory determinations would be most helpful in distinguishing these conditions?

- a. Erythrocyte: granulocyte ratio in bone marrow
- b. presence or absence of polychromatophilic target cell
- c. presence or absence of stippled erythrocytes
- d. Serum ferritin
- e. Serum iron

9. A 36 year lady has macrocytes in peripheral smear. All are possible causes for her EXCEPT

- a. megaloblastic anemia
- b. chronic liver disease
- c. Hook worm infestation
- d. Hypothyroidism
- e. pernicious anemia

10. A 16 year young boy presented with hyperbilirubinemia. All are possible diseases for him EXCEPT

- a. Gilbert syndrome
- b. Wilson's disease
- c. malaria
- d. Autoimmune hemolytic anemia
- e. common bile duct obstruction

11. A 51 year old female has been feeling tired for months. Peripheral smear demonstrates the HB 9gm/dl with MCV 134 with hypersegmented neutrophils. The reticulocyte count is low. Which of the following tests should be ordered next?

- a. Serum B12 level
- b. Hb electrophoresis
- c. Serum ferritin
- d. Sickling test
- e. Osmotic fragility test

12. A 46 year man has moderate splenomegaly. All are possible causes for him EXCEPT?

- a. Visceral leishmaniasis
- b. Sickle cell anemia
- c. Myelofibrosis
- d. Lymphoma
- e. chronic liver disease

13. Which of the following red blood indices pattern is mostly seen in vitamin B12 deficiency anemia?

- a. Low hemoglobin high ferritin
- b. Low MCV and low hemoglobin
- c. Low hemoglobin and high MCV
- d. Low hemoglobin and high MCHC
- e. Low hemoglobin and low ferritin

14. What is the most probable diagnosis for a 15 year old son of a former having chills and angular stomatitis without splenomegaly?

- a. Vitamin B12 deficiency anemia
- b. Iron deficiency anemia
- c. Sickle cell anemia
- d. Hereditary spherocytosis
- e. Beta thalassemia trait

15. A 25 year lady with indirect hyperbilirubinemia and splenomegaly is suspected to have hemolytic anemia which of the following is best test for the diagnosis of lady?

- peripheral smear
- coomb's test
- osmotic fragility test
- Hemoglobin electrophoresis
- Reticulocyte count

16. A 35 years old teacher with thalassemia trait is worried about his newborn child for having thalassemia Which is the best screening investigation for his child?

- Peripheral smear
- Hb electrophoresis
- Serum ferritin
- bone marrow examination
- Osmotic fragility test

48. A 25 year old woman with anemia and splenomegaly is referred to the hematologist. Her direct coomb's test is negative. Her blood film shows the presence of reticulocytes and spherocytes which diseases she is suffering from out of the following?

- Aplastic anemia
- Vitamin B12 deficiency
- Sideroblastic anemia
- Thalassemia major
- Hereditary spherocytosis

17. Which one of the following is not a cause of anemia raised with mean corpuscular volume MCV?

- Beta thalassemia minor
- folate deficiency
- Vitamin B12 deficiency
- Myelodysplasia
- Cytotoxic drug

18. A 60 years old man develops numbness of the feet. On physical examination he has lost proprioception in the lower extremities and is and is

noticed to have a wide based gait. With a positive Romberg sign. His past medical history includes Hypertension, hypothyroidism And previous gastrectomy for gastric cancer what is the most likely cause of his symptoms?

- Folic acid deficiency
- Vitamin B12 deficiency
- Vitamin K deficiency
- Iron deficiency
- Thiamine deficiency

2. LEUKEMIA

1. A 50 year old gentleman presents epistaxis. he has transfusion of two units blood. Investigation showed Hemoglobin 6g/dl, WBC 43000 and platelets 32. There were promyelocytes, myelocytes and blast cells with normocytic normochromic picture on peripheral smear?

- Acute Myeloid leukemia
- Septicaemia with leuko-erythroblastic blood picture
- Lymphoma with bone marrow infection
- Sepsis with DIC
- Mismatched blood transfusion

2. A 60 years old man presented with fatigue weight loss and pain in the left hypochondrium for 6 months on examination there was no lymphadenopathy and he has huge firm spleen palpable up to the umbilicus (massive splenomegaly). Blood smears and bone marrow biopsy results confirm your clinical suspicion of CML. Which of the following is most appropriate step in management?

- Bone marrow transplantation
- Tyrosine kinase inhibitor
- Repeated transfusions
- Hydroxy carbamide
- Beta interferon

3. What is the most probable test for the diagnosis of 70 year old anemic man with huge splenomegaly with Hb 8gm/dl, TLC 75000 mm³ and platelets of 35000 mm³

HEMATOLOGY

- a. Ultrasound
- b. AbdominoBCft.ABL
- c. hemoglobin electrophoresis
- d. CT abdomen
- e. Coomb's test

4. A 35 years old man is on treatment for acute Myeloid leukemia, presented with shortness of breath, vomiting and deranged renal functions. He has high serum Uric acid and low serum calcium what is the most likely diagnosis?

- a. Tumor lysis syndrome
- b. Hypoparathyroidism
- c. Gout
- d. pulmonary embolism
- e. Pneumonia

5. A 25 years old diagnosed patient of chronic Myeloid leukemia is least likely to benefit from which of the following?

- a. Bone marrow transplant
- b. Imatinib
- c. Nilotinab
- d. Interferon
- e. Dexamethasone

6. A 69 years old man incidentally finds an elevated WCC. Differential counts reveal lymphocyte count of 35,000/ μ l his Hb is 13 and platelets are 290,000. A blood film reveals smudge cells there is evidence of axillary lymphadenopathy. What is the most likely diagnosis?

- a. Myelodysplastic syndrome
- b. Infectious mononucleosis
- c. Chronic lymphocytic leukemia
- d. Hodgkin's Lymphoma
- e. Non Hodgkin's lymphoma

7. A 62 year old man has noticed Increasing abdominal fullness Over the past 18 months. He has no other symptoms. His abdomen is distended. There is a noticed edge Palpable in the right Iliac fossa that moves further Towards the anterior superior Iliac spine on Inspiration there is dullness to percussion Over the umbilicus. which is the single most likely cause of Abdominal mass?

- a. Chronic Myeloid leukemia
- b. Idiopathic thrombocytopenic Purpura

- c. Myelodysplasia
- d. Polycythemia Rubra vera
- e. Portal hypertension

3. LYMPHADENOPATHY

1. A 62 year old man has felt generally unwell for the past 3 months. His main problem is a widespread, intractable itch, but he has also lost his appetite and thus more than 5 kg. He is lethargic and low in mood and suffers from intermittent fevers with sweats at night. There is an enlarged rubbery left cervical lymph node that is non tender to palpation. Which is the single most likely cause of this man's symptoms?

- a. Lymphoma
- b. Tuberculosis
- c. Chronic Myeloid leukemia
- d. Psycythermic Rubra viral
- e. Brucellosis

2. A patient with Hodgkin's lymphomas who is under treatment develops high fever. His blood results show WBC <2000 and a chest infection. Choose the most likely treatment?

- a. Co-amoxiclav
- b. piperacillin + Tezobactam
- c. Erythromycin
- d. piperacillin + Co-amoxiclav
- e. penicillin + Tezobactam

3. A 23 year old afghan boy presented with weight loss and low grade fever for the last 2 months examination showed marked cervical lymphadenopathy on the right side. ESR was 82. Hemoglobin was 9.2 gram/dl and WBC was normal. Chest X ray and ultrasound abdomen was normal. The most appropriate next step will be.

- a. Bone marrow examination
- b. lymph node biopsy
- c. CT scan of the chest and abdomen
- d. start broad spectrum antibiotics
- e. wait and see

4. What is the most suitable treatment for 30 year old man with isolated single left cervical enlarged lymph node showing reed Steinberg cells on biopsy

- a. Chemotherapy
- b. surgical resection
- c. Targeted radiotherapy
- d. Radio frequency ablation
- e. Cryotherapy

5. A 62-year old man has felt generally unwell for the past 3 months. His main problem is a widespread, intractable itch, but he has also lost his appetite and thus more than 5kg. He is lethargic and low in mood and suffers from intermittent fevers with sweats at night. There is an enlarged rubbery left cervical lymph node that is non tender to palpation. Which is the single most likely cause of this man's symptoms?

- a. B cell malignancy
- b. Bone marrow malignancy
- c. Myeloid cell malignancy
- d. plasma cell malignancy
- e. T-cell malignancy

4. BLEEDING AND CLOTTING DISORDERS

1. A 20 years old female presented with multiple burrs on the body and bleeding from the gums her labs are as follow Hb 13mg/dl, TLC 10'000 platelet count 5000/cmm, U/s abdomen normal, bone marrow showed peripheral distruction. What is the most effective initial treatment options?

- a. azathioprine
- b. cyclosporine
- c. I.V immune globulins
- d. prednisolone
- e. splenectomy

2. A 30 years female has suspected to have low probability of deep venous thrombosis. What is the most appropriate test?

- a. increased fibrin degradation product level
- b. Decreased FDP level
- c. prolonged PT/INR
- d. prolonged APTTK level
- e. venous Doppler of the leg

3. A feature of Idiopathic thrombocytopenic purpura common to both children and adults is absence of splenomegaly?

- a. Absence of splenomegaly
- b. Necessity of splenectomy to ameliorate thrombocytopenia
- c. occurrence after antecedent viral illness
- d. presence of antibodies directed against Target antigen on the glycoprotein IIb-IIIa complex
- e. persistences of thrombocytopenia for more than 6 months

4. A patient of embolic stroke is taking warfarin he comes to dental out door for tooth extraction. the most useful investigation to the effect of warfarin is;

- a. bleeding time
- b. Hematocrit
- c. platelet count
- d. prothrombin time
- e. Thromboplastin time

5. A 15 years old boy presented with recurrent swelling of the knee joints, he also complained of prolonged bleeding from cuts. His brother is also having the same complaints. His labs are as follows HB 12gm/dl, TLC 9000, platelet 400,000 PT normal, APTT prolonged. What is the most likely diagnosis?

- a. ITP
- b. Hemophilia
- c. Sickle cell anemia
- d. Von willibrand disease
- e. Anti phospholipid syndrome

6. A 60 years old male has been taking warfarin for severe mitral stenosis and atrial fibrillation his INR is within normal range, following drugs can potentiate the effect of warfarin EXCEPT

- a. Digoxin
- b. Amiodarone
- c. metro nidazole
- d. sodium valproate
- e. keto conazole

7. A 15 year old boy presented with prolonged bleeding from cuts. His APTT and bleeding time are prolonged. What is the most probable diagnosis?

- a. Von willibrand disease
- b. Hemophilia
- c. ITP
- d. Aplastic anemia
- e. vitamin K deficiency

8. A 50 year old former has been diagnosed with cerebral malaria. All are prognostic factors for him except

- a. low platelets
- b. coma
- c. Deranged renal functions
- d. Normal PT/APTT
- e. Deranged liver functions

9. A 30 year old lady has undergone splenectomy for ITP. Which of the following is expected feature on her peripheral smear?

- a. pencil cells
- b. Target cell
- c. Howell jolly bodies
- d. Schistocytes
- e. Acanthocytes

10. A 23 years old man with hemophilia is worried about his son to having hemophilia. Which of the following is best screening test for his son?

- a. APTT
- b. PT
- c. Bleeding time
- d. Clotting time
- e. Hb electrophoresis

11. A young boy presented in outdoor with history of sudden painful swelling of joints after Minor trauma since childhood. The most likely diagnosis is:

- a. Disseminated intravascular coagulation
- b. Idiopathic thrombocytopenic Purpura
- c. hemophilia A
- d. sickle cell disease
- e. non of the above

12. A 30 year old lady presents with widespread bruising and heavy periods on examination she

appear well but has petechiae and bruises on the lower limbs. Investigation shows an Hb of 11gm/dl, TLC 5500 and platelets 10,000 rest of investigation are normal. What is the most likely diagnosis?

- a. Aplastic anemia
- b. Hodgkin's lymphoma
- c. Megaloblastic anemia
- d. Idiopathic thrombocytopenic Purpura
- e. Acute Myeloid leukemia

5. MULTIPLE MYELOMA

1. A 72 year old man has a sudden onset of pain in the right side of his chest. He recalls on trauma to the area and is surprised when he is told he has fractured ribs. He also has pain in his lower back and has had two admissions to hospital in the past 6 months with chest infections. which single cell type is most likely to be proliferating?

- a. Germinal centre B cell
- b. Ig.M secreting cell
- c. Mature B lymphocytes
- d. Myeloid cell
- e. plasma cell

2. A 55 year old man history of bone pains and backache has haemoglobin of 7.6g/dl. ESR 112, serum calcium 12.5mg/dl and a serum creatinine 2.5 mg/dl. X-rays shows collapsed 1.3 vertebrae and some lytic lesions in the pelvic bone. The most likely diagnosis is

- a. Multiple myeloma
- b. Carcinoma prostate with bony metastasis
- c. Secondary hyperparathyroidism
- d. Osteosarcoma
- e. Tuberculosis of spine

3. A 60 years old male diagnosed patient of multiple myeloma can present with following complications EXCEPT

- a. Amyloidosis
- b. Spinal cord compression
- c. Hypocalcemia
- d. peripheral neuropathy
- e. cryobolemia

4. A 61 year old has generalized bone pain, renal failure and anemia . In this setting a bone marrow biopsy is most likely to show?

- a. Reed Steinberg cells
- b. Caseating granuloma
- c. plasma cells
- d. Gaucher cells
- e. Hairy cells

5. A 76 year man has been diagnosed with multiple myeloma . All are possible features for him EXCEPT?

- a. High ESR
- b. hypercalcemia
- c. Anemia
- d. Sclerotic lesions on X-ray skull are common
- e. Hypergamma globulinemia

6. MIX

1. A 55 years old man is receiving a transfusion of packed red cells during his recovery from colorectal surgery. He has suddenly develop a fever 30 mint into the transfusion. Temperature= 38.3°C , heart rate= 90bpm , BP= $125/70\text{mmHg}$,SaO₂ 98% on air. The transfusion has been stopped. Which single development should make the junior doctor most wary about restarting the transfusion?

- a. Pruritus
- b. Shivering
- c Systolic BP $<105\text{mmHg}$
- d. Temperature $>38.5^{\circ}\text{C}$
- e. Urtarcia

2. A 64 year old woman who is receiving chemotherapy for metastatic breast cancer has been treating midtheroic pain with acetaminophen . Over the past few days she has become weak and unsteady on her feet . The the day of admission she develops urinary incontinence . Physical examination reveals fist percussion Tenderness over T8 and moderate symmetric muscle weakness in the legs. Anal sphincter tone is reduced . Which of the following diagnostic studies is more important to order?

- a. Serum calcium
- b. Bone scan
- c. plain radiographs of the thoracic spine
- d. MRI scan of the spine
- e. Electromyogram with nerve conduction studies

3. A 25 years old epileptic female presented with gingival hypertrophy to her dentist . Which of the following is most likely to be responsible for her presentation?

- a. Scurvy
- b. carbamazpine
- c. phenytoin
- d. Lead poisoning
- e. pregnancy

4. All of the following conditions are characterized by ESR EXCEPT?

- a. Multiple myeloma
- b. Tuberculosis
- c. lymphoma
- d. Giant cell arthritis
- e. polycythemia Rubra vera

5. 55 year old hypertensive patient will controlled on hydrochlorothiazide presented with a three hours history of severe throbbing pain in the left knee he had a high meat intake in his dinner this night . On examination the left joint is tender and shiny. Which of the following would be his joint aspiration findingers ?

- a. High total leucocytic count
- b. weakly positively birefringent crystals
- c. Negativity birefringent crystals
- d. clear fluid
- e. Frank pus

6. A 30 year old man is undergoing chemotherapy for teratoma is suffering from Severe vomiting shortly after receiving drug which medication will be most beneficial to relieve his vomiting?

- a. Metaclopramide
- b. Morphine
- c. Hyoscine Butlybromide
- d. Ondansetron
- e. Dexamethasone

7. A 59 year old man is receiving a unit of packed red cells for bleeding osephagial varices within an hour of transfusion starting,he became agitated and appears very flushed the site of his IV Cannula is oozing blood,T= 38.4°C ,Heart rate = 110bpm BP. $95/65\text{mmHg}$.Which one is the single most likely explanation for his symptoms

- a. Acute hemolytic reaction

- b. Allergic reaction
- c. Anaphylaxis
- d. Bacterial contamination
- e. Non hemolytic febrile transfusion reaction

8. A 72 year old man has had an acute non ST elevation myocardial infarction . He being treated in a hospital with a range of new medication. his renal function is moderately imapiired and so he is given u fractionated Heparin and monitored for signs of an adverse reaction . Which single subsequent episode is most likely to signal a reaction?

- a. Epistaxis
- b. Syncope
- c. Venous thrombosis
- d. Visual disturbance
- e. widespread blanching rash

9. A 62 year old man has had a headache coupled with dizziness intermittently for the past 6 months He has also noticed an unpleasant burning Sensation in his hand and feet . Both the big and first toes of his right footAre dusky in color And tender to touch which single pathological process is most likely to be the cause of his symptom ?

- a. Bone marrow failure
- b. chronic haemolysis
- c. myeloproliferation
- d. plasma cell proliferation
- e. thermophilia.

10. A 60 years old man presented with dull aching Pain in the right Flank Physical examination reveals a firm mass that does not move With inspiration . Laboratory studies shows Normal BUN creatinine and electrolytes Urinalysis shows Hematuria . Hemoglobin is elevated at 18 g/dl And serum calcium is 11mg/dl What is the most likely diagnosis?

- a. polycystic kidney disease
- b. pheochromocytoma
- c. Adrenal carcinoma
- d. Renal adenomypoma
- e. Renal cell carcinoma

11. A 72 years old man has a sudden onset of pain. In the right side of his chest . He recalls no trauma to the area and is surprised when he is told he has fractured ribs. He also has pain in his lower back and has had two admissions in hospital in the past 6 months with chest infections which single cell type is most likely to be proliferating?

- a. Germinal centre B cell
- b. gM secreting cell
- c. Mature B lymphocytes
- d. Myeloid cell
- e. plasma cell

12. A 28 years old diagnosed patient of Aplastic anemia is least likely to benefit from which of the following treatment options?

- a. Cyclosporine
- b. Oxamethalone
- c. Bone marrow transplantation
- d. Antithymocyte globulin
- e. Desferoximine

13. A 55 years old man is receiving a transfusion of packed red cells during his recovery from colorectal surgery. he has suddenly develop a fever 30min into the transfusion . Temperature=38.3°C , heart rate =90bpm, BP=125/70mmhg ,SaO2 98% on air . The transfusion has been stopped. Which single development should make the junior doctor most wary about restarting the transfusion.

- a. Pruritus
- b. Shivering
- c. Systolic BP<105mm/Hg
- d. Temperature>38.5°C
- e. Urticaria

14 .A 72 year old man has a sudden onset of pain on his right chest . He recalls no trauma to the area and is surprised when he has told he has fractured ribs. He also has pain in his lower back and had two admissions to the hospital in the past 6 months with chest infections. Which single cell type is most likely to be proliferating?

- a. Germinal centre B cell
- b. IgM secreting cell
- c. Mature B lymphocytes
- d. Myeloid cell
- e. plasma cell

15. A 64 year old woman who is receiving chemotherapy for metastatic breast cancer has been treating midthoracic pain with acetaminophen over the past few days she has become weak and unsteady on her feet on the day of admission she developed urinary incontinence. On physical examination fist percussion Tenderness over T8 and moderate symmetric muscle weakness in the legs Anal sphincter tone is reduced which of the following diagnostic studies is most important to order?

- Serum calcium
- Bone scan
- plain radiographs of the thoracic spine
- MRI scan of the spine
- Electromyogram with nerve conduction studies

16. A 20 years old man find asymptomatic mass in his scrotum . He denies fever dysuria or hematospermia which of the following is most appropriate first step in elevating this mass?

- palpation and transillumination
- .HCG and alpha fetoprotein
- scrotal ultrasonography
- Evolution for agunial adenopathy
- Referral for inguinal orchiectomy

ANSWER KEYS

1. ANEMIAS

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

2. LEUKEMIA

1.A	2.B	3.E	4.A	5.E
6.	7.			

3. LYMPHODENOPATHY

1.A	2.B	3.B	4.C	5.A
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4. BLEEDING AND CLOTTING DISORDERS

1.D	2.C	3.A	4.D	5.B	6.A
7.A	8.D	9.C	10.A	11.C	12.D

5. MULTIPLE MYELOMA

1.E	2.A	3.C	4.C	5.D
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6. MIX

1.C	2.D	3.C	4.E	5.C
6.D	7.A	8.C	9.C	10.E
11.E	12.E	13.C	14.E	15.D
16.A				

RESPIRATORY MEDICINE

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1. INTERSTITIAL LUNG DX

1. Which of the following disorders is suggestive of a pulmonary complication of rheumatoid arthritis?

- a. Scattered parenchymal nodules
- b. Interstitial pulmonary fibrosis
- c. Recurrent wheezing, dyspnea, and chest tightness
- d. Severe irreversible airway obstruction with hyperinflation
- e. Inspiratory stridor following a viral upper respiratory infection

2. Crepts uninfluenced by coughing are found in

- a. Acute pulmonary oedema
- b. Consolidation
- c. Fibrosing alveolitis
- d. Lung abscess
- e. Bronchiectasis

3. Which of the following is a poor prognostic sign in sarcoidosis?

- a. Arthritis
- b. Fever
- c. Erythema nodosum
- d. Lofgren's syndrome
- e. Hypercalcemia

4. Which of the following laboratory abnormalities is not likely to be found in patients with sarcoidosis?

- a. Depressed serum 1,25-dihydroxy vitamin D3
- b. Elevated serum angiotensin-converting enzyme activity
- c. Elevated urinary calcium E
- d. Elevated serum gamma globulin
- e. Elevated serum acid phosphatase

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- b. Interstitial pulmonary fibrosis
- c. Recurrent wheezing, dyspnea, and chest tightness
- d. Severe irreversible airway obstruction with hyperinflation
- e. Inspiratory stridor following a viral upper respiratory infection

6. A young man has been admitted to hospital for progressive dyspnea for 4 months. His examination shows end inspiratory crackles on both lungs bases. His history reveals rheumatoid arthritis for which he was on tablet methotrexate 10mg/week for 4 weeks. His blood analysis shows hypoxia with normal carbon dioxide. What shows end is the most likely diagnosis?

- a. Interstitial lung disease
- b. Left ventricular failure
- c. Methotrexate toxicity
- d. Pulmonary tuberculosis
- e. Bronchopneumonia

7. A young man has been admitted in hospital for progressive dyspnea for the last 4 months, His examination shows end Inspiratory crackles on both lung bases. His previous history reveals rheumatoid

arthritis for which he was on Tah Methotrexate 10mg/week for last two weeks. His blood analysis shows hypoxia with normal carbon dioxide. What is the most likely diagnosis for this patient?

- a. Interstitial lung disease
- b. Left ventricular failure
- c. Bronchiectasis
- d. Pulmonary tuberculosis
- e. Bronchopneumonia

8. Which of the following laboratory abnormalities is not likely to be found in patients with sarcoidosis?

- a. Depressed serum 1,25-dihydroxy vitamin D3
- b. Elevated serum angiotensin-converting enzyme activity
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- d. Elevated serum gamma globulin
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- e. Inspiratory stridor following a viral upper respiratory infection

2. ASTHMA

1. When used in the management of asthma, glucocorticoids are likely to cause

- a. Hypoglycemia
- b. decreases in blood pressure
- c. anabolic actions in wound healing
- d. oral thrush
- e. sedation

2. A 52 years old woman is severely short of breath. She is confused and cannot respond to questions. There is no one accompanying her to shed light on her medical history. T=37.1°C, Heart Rate=120bpm, BP=105/65mmHg, RR=26/min. Her lips appear blue, her neck muscles are being used to assist breathing

and there is a generalized wheeze on her chest. She is put on high-flow oxygen. Which is the single most appropriate course of immediate management?

- a. Aminophylline 300mg IV
- b. Epinephrine (adrenaline) 0.5mg IM
- c. Hydrocortisone 100mg IV
- d. Magnesium sulphate 1.2g IV
- e. Salbutamol 5mg NEB

3. Which of the following is the most important sign of seriousness of bronchial asthma

- a. Anxious patient
- b. Hypertension
- c. Tachycardia
- d. Cyanosis
- e. Audible wheeze

4. Bronchial breath sounds are found in all except:

- a. Collapse with patent bronchus
- b. Bronchial asthma
- c. Superficial big empty cavity with patent bronchus
- d. Bronchopleural fistula
- e. Bronchiectasis

5. A diagnosed case of asthma presented to the medical unit with shortness of breath. What is the most specific test to measure severity of this disease?

- a. Oxygen saturation (SaO2%)
- b. Partial pressure of arterial oxygen (PaO2)
- c. Partial pressure of arterial carbon dioxide (PCO2)
- d. Forced vital capacity (FVC)
- e. Forced expiratory volume in one second (FEV1)

6. A 16 year old asthmatic girl presented to the casualty department with shortness of breath. She was given emergency medication and she improved. How will you assess the severity of the disease?

- a. Daily arterial blood gases
- b. Daily forced vital capacity
- c. Daily peak expiratory flow
- d. Daily full blood count
- e. Daily chest X-ray

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- b. Daily forced vital capacity
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- b. Epinephrine (adrenaline) 0.5mg IM
- c. Hydrocortisone 100mg IV
- d. Magnesium sulphate 1.2g IV
- e. Salbutamol 5mg NEB

3. COPD

1. A patient presents with end-stage COPD, he is on maximum bronchodilators and inhaled steroids. He has a raised JVP and ankle edema. He complains of increasing shortness of breath. The therapy most likely to improve survival is

- a. Home Oxygen therapy
- b. long term antibiotics
- c. theophylline
- d. oral steroids
- e. pulmonary rehabilitation

2. Which is true in a predominantly blue bloater?

- a. FEV1 is markedly diminished
- b. Vital capacity is usually normal
- c. History of repeated episodes of respiratory insufficiencies
- d. Elastic recoil is much diminished
- e. Pulmonary hypertension does not complicate the disease

3. A 50 years old smoker and diagnosed case of COPD presented with acute exacerbation of shortness of breath. One week ago he was diagnosed as hypertensive and his GP put him on some medications. What is the most likely cause for his current condition?

- a. Propranolol
- b. Lisinopril
- c. Amlodipine
- d. Water tablets
- e. Simvastatin

4. In emphysema the commonest symptom is

- a. Palpitation
- b. Increased dyspnea
- c. Cough
- d. Hemoptysis
- e. Chest pain

5. Which of the following organism is associated with acute exacerbation of chronic bronchitis

- a. Staphylococci
- b. Meningococci
- c. E-coli
- d. Proteus
- e. Hemophilus Influenzae

6. A patient presents with end-stage COPD, he is on maximum bronchodilators and inhaled steroids. He has a raised JVP and ankle edema. He complains of increasing shortness of breath. The therapy most likely to improve survival is?

- a. Home oxygen therapy
- b. Long term antibiotics
- c. theophylline
- d. Oral-steroids
- e. Pulmonary rehabilitation

7. A 50 years old chronic smoker presented with shortness of breath to emergency unit. He is diagnosed with a case of COPD. What is the most ideal oxygen saturation for this patient?

b. 96-98% oxygen

a. 100%

c. 92-96%

d. 88-92%

e. 84-88%

8. In the evaluation of a patient with chronic obstructive pulmonary disease (CaPO), each of the following laboratory abnormalities will help to distinguish the emphysematous from the bronchitic types EXCEPT

a. diffusing capacity for carbon monoxide: 15 units (65% predicted)

b. residual volume: 4.2 liters (198% predicted)

c. arterial P_{eo2} : 52 mm Hg

d. transpulmonary pressure at total lung capacity: 7 cm H₂O (normal: 30-35)

e. marked enlargement of central pulmonary arteries on chest roentgenogram

4. PULMONARY EMBOLISM

1. In acute pulmonary embolism, the most frequent ECG finding is

a. Left axis deviation

b. P pulmonale

c. Right axis deviation

d. S1Q3T3

e. Sinus tachycardia

2. Which of the following is incorrect regarding treatment of acute pulmonary thromboembolism?

a. Emergency embolectomy is rarely needed

b. Thrombolytics should be used in a massive pulmonary thromboembolism proved by CT or angiography

c. Heparin is a thrombolytic drug

d. Heparin therapy cannot result in rapid resolution of patient's dyspnea

e. Oral anticoagulants have no place in the management of life threatening thromboembolic disease

3. A 25 years old married woman using oral contraceptive pills developed acute onset shortness of breath after she travelled from Europe to Islamabad. On examination her BP was 120/80, pulse 100/min and RR 30/min. chest was clear bilaterally right leg was swollen. What is the most likely diagnosis?

a. Acute pulmonary embolism

b. Acute bronchial asthma

c. Myocardial infarction

d. Aortic dissection

e. Pneumonia

4. In a suspected case of pulmonary embolism the confirmatory test is

a. Atrial Blood Gases

b. D-dimers

c. CT angiogram

d. ECG

e. Echo

5. In acute pulmonary embolism, the most diagnostic ECG finding is

a. Left axis deviation

b. P-pulmonale

c. Right axis deviation

d. S1 Q3 T3

e. Sinus tachycardia

6. A 79 year old was admitted with sudden onset of chest pain and breathlessness. On examination, he was cyanosed. He had a total hip replacement ten days before. The patient smoked 10 cigarettes/day. Examination shows tachypnea, rest unremarkable. Investigations are shown HB=13g/dl, WBC 13x10⁹/L, platelets 250x10⁹/L, CRP=28g/L, ECG Sinus tachycardia and RBBB, arterial blood gases (PH 7.49 (7.35-7.45), P_{aCO2} =3.1 KPa (4.7-6.0), P_{aO2} = 8.5K1 (11.2-14), $HCO3$ =25 mmol/L. What is the probable diagnosis?

a. Pulmonary embolism

b. Acute myocardial infarction

c. Fat embolism

d. Pneumonia

e. Pulmonary edema

7. The single major reason for early use of heparin in patients with pulmonary thromboembolism is to

- dilate pulmonary vasculature
- eliminate the source of further emboli
- reverse bronchoconstriction induced by platelet-derived mediators
- lyse existing clot in the pulmonary circulation
- prevent growth of existing clot

8. The single major reason for early use of heparin in patients with pulmonary thromboembolism is to

- dilate pulmonary vasculature
- eliminate the source of further emboli
- reverse bronchoconstriction induced by platelet-derived mediators
- lyse existing clot in the pulmonary circulation
- prevent growth of existing clot

5. RESPIRATORY FAILURE

1. Which of the following is true in type 2 respiratory failure?

- Decreased pO₂ and decreased pCO₂
- Decreased pO₂ and normal pCO₂
- Normal PO₂ and Increased pCO₂
- Decreased pO₂ and increased pCO₂
- Normal PO₂ and normal pCO₂

2. Chronic respiratory failure is not seen in

- Diffuse interstitial fibrosis
- Emphysema
- Pneumothorax
- Chronic bronchitis
- Pneumonia

6. T.B

1. Hemorrhagic pleural effusion may be seen in

- Cirrhosis liver
- Tuberculosis
- SLE
- CCF
- Nephrotic syndrome

2. False tuberculin test may be seen in all of the following except

- Miliary tuberculosis
- Immune suppressive therapy
- Malnourished patients
- Young patients
- AIDS patients

3. A patient has post tuberculous destroyed right lung. How would he lie down in bed to feel more comfortable?

- Left lateral decubitus position
- No preferred position
- Prone position
- Right lateral decubitus position
- Supine position

4. Which one of the following characteristics of plural fluid aspirate is in favor of tuberculosis

- Yellow color
- Turbidity
- High Lymphocyte Count
- High Protein Content
- RBC

5. The side effect of optic neuritis is associated with

- Rifampicin
- Pyrazinamide (PZA)
- Ethambutol
- INH
- Streptomycin

6. A 40-years-old man is presented with complaints of shortness of breath for the last one month due to right sided pleural effusion. Pleural fluid analysis shows pH=7.2, sugar 40 mg%, protein 3.6gm%, TLC=523/mm³ with neutrophils 20%. What is your diagnosis?

- Left ventricular failure
- Pulmonary tuberculosis
- Nephrotic syndrome
- Hypothyroidism
- Protein losing enteropathy

7. The sputum culture sensitivity report of a fifty year old man showed resistance to pyrazinamide, ethambutol, thioacetazone and INH but was found sensitive to rifampicin, streptomycin and fluoroquinolones. What is the most likely diagnosis?

- a. MPoly drug resistance TB
- b. Mono drug resistant TB
- c. Extensive drug resistance TB
- d. Secondary drug resistance
- e. Primary drug resistance TR

8. A 40 year old man presented with complaints of shortness of breath for last one month due to right sided pleural effusion. Pleural fluid analysis show PH = 7.2, sugar 40mg%, protein 3.6Gm% TLC=523/MM3 with Neutrophils 30%

- a. Left ventricular failure
- b. Pulmonary tuberculosis
- c. Nephrotic syndrome
- d. Hypothyroidism
- e. Protein losing enteropathy

9. A 65-year-old alcoholic man with cirrhosis reports that he is "coughing blood." Past history is notable for substantial cigarette use and for pulmonary tuberculosis in the 1960's that was "treated with pills for a year." Over the past five years, the patient has had cough product of one-half cup of thick sputum daily. For the past three days, he has noted flecks of blood or clots in the sputum. Chest roentgenogram shows extensive biapical and right lower lobe scarring that is unchanged from a previous film. The most likely cause of this patient's coughing blood is?

- a. broncholithiasis
- b. bronchogenic carcinoma
- c. active tuberculous infection
- d. post-tuberculous bronchiectasis
- e. hematemesis confused with hemoptysis

7. AERD

1. A 28 year-old woman with a history of nasal polyps has episodes of dyspnea, chest tightness and shortness of breath that have recently begun to occur whenever she takes aspirin. She should be advised to avoid use of medications containing

- a. codeine
- b. indomethacin
- c. sodium salicylate
- d. acetaminophen
- e. H2-receptor-blocking antihistamines (eg, cimetidine)

8. OBSTRUCTIVE SLEEP APNEA

1. A truck driver who keeps falling asleep has BMI 25. Sleep study shows sleep apnoea. He had lots of arousal (26/hour) and decreased sleep latency. Management options include all of the following except:

- a. Uvuloplasty
- b. Continuous Positive Airway Pressure
- c. Sleep hygiene and reassurance
- d. Lose weight
- e. Methylphenidate

2. A 45 years old lady presented to OPD with day time sleepiness sometimes even during her routine work by present. Her sleep during night is interrupted by repeated awakening. She felt tired and complained of a headache on waking up. Her BMI is 32 and blood gas analysis is normal. What is the diagnosis?

- a. Narcolepsy
- b. Obstructive sleep apnea
- c. Congestive heart failure
- d. Bronchial asthma
- e. CO2 narcosis

9. TENSION PNEUMOTHORAX

1. A man is stabbed and arrives to emergency room within 30 minutes. You notice that the patient is distressed and trachea is deviated to the opposite side of chest puncture. The most likely finding on examination of the stabbed side would be

- a. Dullness to percussion
- b. Hyper-resonant percussion
- c. Increased vocal fremitus
- d. Increased vocal resonance
- e. Wheeze

2. A 25 years old tall lean patient came to the OFD with acute onset shortness of breath. On examination, he was distressed with BP of 90/60, pulse 110/min, respiratory rate 30/min, temperature of 99 F, his neck veins were engorged with absent breath sounds on the right side of chest with hyper resonant percussion note. What single best decision would take next?

- a. Urgent chest x-ray
- b. Needle thoracocentesis
- c. IV fluids
- d. ECG
- e. IV antibiotics

3. A 20 years old thin male previously in good health while playing cricket suddenly felt severe chest and collapsed on the spot. He has no major health problem and was non smoker. He was found dyspneic and cyanotic in the emergency department but vital signs were normal. What is the most likely diagnosis?

- a. Pulmonary embolism
- b. Tension pneumothorax
- c. Myocardial infarction
- d. Dissection of aorta
- e. Left ventricular failure

4. A 20 year old thin male previously in good health while playing cricket suddenly felt severe pain in the left side of chest and collapsed on the spot. He had

no previous history of any major health problem and was a non smoker. He was found dyspneic and cyanotic in the emergency department but vital signs were normal. What is the most likely diagnosis?

- a. Pulmonary embolism
- b. Tension Pneumothorax
- c. Myocardial infarction
- d. Dissection of aorta
- e. Left ventricular failure

10. PNEUMONIA

1. A 52-year-old female presents with a community acquired pneumonia complicated by pleural effusion. A thoracentesis is performed, with the following results: Appearance: Viscous, cloudy, pH 7.11, Protein 5.8 g/dl, LDH 285 IU/L, Glucose 66 mg/dL, WBC 3800/mm³, RBC 24,000/mm³, PMNs 93%, Gram stain Many PMNs; no organism seen. Bacterial cultures are sent, but the results are not currently available. Which characteristic of the pleural fluid is most suggestive that the patient will require tube thoracostomy?

- a. Glucose < 100 mg/dL
- b. LDH > 2/3rd of upper limit of normal
- c. Presence of 90% Neutrophils in pleural fluid
- d. Presence of 1000 neutrophils in pleural fluid
- e. pH less than 7.20

2. A 52 years old female presents with a community acquired pneumonia complicated by pleural effusion. A thoracentesis is performed with the following results, Appearance viscous cloudy, pH 7.11, Protein 5.8 g/dl, LDH 285 IU/L, Glucose 66 mg/dl, WBC 3800/mm³, RBC 24,000/mm³, PMNs 93%, Gram Stain Many PMNs: no organism seen. Bacterial cultures are sent. But the result are not currently available. Which characteristic of the pleural fluid is most suggestive that the patient will require tube thoracostomy?

- a. Presence of more than 90% polymorphonuclear cells (PMNs)
- b. Glucose less than 100 mg/dl

- c. Presence of more than 1000 white blood cells
- d. pH less than 7.20
- e. Lactate dehydrogenase (LDH) more than two thirds of the normal upper limit for serum.

3. A young male patient presents with non productive cough, chills and fever. He has type 1 diabetes. A chest x-ray shows diffuse interstitial infiltrate bilaterally, the most probable infecting organism in this patient is?

- a. Strep, Pneumonia
- b. Klebsiella Pneumonia
- c. Mycoplasma Pneumonia
- d. Legionella Pneumonia
- e. Fungal infections

4. A 55 year old woman with a persistent cough and history of smoking develops left sided chest pain exacerbated by deep breathing with fever and localized crackles. What is the single most appropriate diagnosis?

- a. Dissecting aneurysm
- b. Pericarditis
- c. Pneumonia
- d. Pneumothorax
- e. Pulmonary embolism

11. ABG

1. A 35 years old lady had a fight with her husband and took some medication for suicidal purpose. She was brought to the casualty department with altered state of consciousness. On examination she was breathing shallow and her pupils were pin point. What single most investigation would you do which will guide further management.

- a. Chest x-ray
- b. Sputum routine exam
- c. Arterial blood gas
- d. P. Smear
- e. CT chest

2. A 30 year old asthmatic presents with dyspnoea and the following blood gases: 46 pH=7.20, pCO₂-

30mmHg, pO₂=60 mmHg, HCO₃-18 mmHg, This patient has

- a. Partially compensated metabolic acidosis
- b. Partially compensated respiratory acidosis
- c. Mixed metabolic and respiratory acidosis
- d. Respiratory acidosis
- e. Metabolic acidosis

12. SARCOIDOSES

1. Which of the following is a poor prognostic sign in sarcoidosis?

- a. Arthritis
- b. Fever
- c. Erythema nodosum
- d. Löfgren's syndrome
- e. Hypercalcemia

2. Which of the following laboratory abnormalities is not likely to be found in patients with sarcoidosis?

- a. Depressed serum 1,25-dihydroxy vitamin D3
- b. Elevated serum angiotensin-converting enzyme activity
- c. Elevated urinary calcium E
- d. Elevated serum gamma globulin
- e. Elevated serum acid phosphatase

13. MIX

1. Which of the following is false regarding pickwickian syndrome?

- a. Marked obesity
- b. Somnolence
- c. Hyperventilation
- d. Right sided heart failure
- e. More prone to systemic hypertension

2. Haemoptysis is characteristically seen in all except:

- a. Good Pasteur's syndrome
- b. Aspergillosis
- c. Pulmonary vasculitis
- d. Byssinosis
- e. Pulmonary tuberculosis

3. A 45-year-old chronic smoker attends the OPD with complaints of persistent cough and copious amounts of purulent sputum. He had a history of measles in the past. Exam: finger clubbing and inspiratory crepitations on auscultation. What is the single most likely diagnosis?

- a. Interstitial lung disease
- b. Bronchiectasis
- c. Asthma
- d. COPD
- e. Sarcoidosis

4. A 40 year old banker presented with 3 days history of fever, productive cough and acute confusional state. He is a non smoker, hemodynamically stable and his biochemical profiles are Hb 11 gm%, TLC 2900/cmm, Neutrophil 60%, lymphocytes 40%, ESR 30/1st hr, bilirubin 3.1 mg/dl, SGPT 68, Alkaline phosphatase 280, serum creatinine 1.7mg%, what is the most likely pathogen of this disease?

- a. Staphylococcus aureus
- b. Streptococcus pneumonia
- c. Hemophilus influenza
- d. Legionella pneumophila
- e. Chlamydia psittacii

5. A 32 years old male is climbing mount K-2. He has no medical problems and takes no medications. Shortly after beginning the climb, he develops severe shortness of breath. Physical examination shows diffuse bilateral inspiratory crackles. Which of the following is the most likely etiology?

- a. Acute interstitial pneumonitis
- b. Acute respiratory distress syndrome
- c. Cardiogenic shock
- d. Community acquired pneumonia
- e. High altitude pulmonary edema

6. Which condition is associated with spontaneous pneumothorax?

- a. Marfan's syndrome
- b. COPD
- c. Bronchial asthma
- d. Ehlers Danlos syndrome
- e. All of them

7. Which pulmonary condition is associated with clubbing except

- a. Empyema
- b. Bronchiectasis
- c. Pulmonary fibrosis
- d. Interstitial lung disease
- e. COPD

8. An 18 years old young man with known cystic fibrosis presents to the physician with his third episode of kidney stones in the past year. In addition he has begun to complain of difficulty seeing at night. Such changes can be attributed to a deficiency of which vitamin?

- a. Pyridoxine
- b. Vitamin A
- c. Vitamin B1
- d. Vitamin B12
- e. Vitamin D

9. Which one of the following is not an indication for chest tube intubation in a patient with Parapneumonic effusion?

- a. Loculated pleural fluid
- b. Pleural fluid PH > 7.45
- c. Pleural fluid glucose < 3.3 mmol/L (< 60 mg/dL)
- d. Positive gram stain or culture of the pleural fluid
- e. Presence of gross pus in the pleural space

10. A 50 year old man with diabetes mellitus suddenly develops persistent crushing central chest pain radiating to the neck with asymmetrical places. What is the single most appropriate diagnosis?

- a. Angina
- b. Costochondritis (Tietz's disease)
- c. Dissecting aneurysm
- d. Myocardial infarction
- e. Pulmonary embolism

11. A 73 year old woman has been short of breath for the past 3 weeks. She now needs to sleep with four pillows rather than two and has swollen ankles by the end of the day. She used a regular steroid inhaler for asthma but has never been in hospital for any reason. Which of the following is the most likely diagnosis?

RESPIRATORY MEDICINE

- a. Acute exacerbation of asthma b. Angina
- c. Cardiac failure d. Pneumonia
- e. Pulmonary embolism

12. A 15 year old girl presents with patchy hair loss on the scalp. The skin appears normal. Exclamation mark hair can be seen. The most likely diagnosis is

- a. Androgenetic alopecia
- b. Alopecia areata
- c. Tinea capitis
- d. Telogen effluvium
- e. Cicatricial alopecia

13. The characteristic lesion of scabies is

- a. Ulcer b. Papules c. Pustule
- d. Burrow e. Comedone

14. To establish the diagnosis, the most appropriate diagnostic approach or procedure in this patient is

- a. gallium scanning of the lung
- b. fiberoptic bronchoscopy or mediastinoscopy
- c. liver or conjunctival biopsy
- d. biopsy of skin lesions on lower legs
- e. careful follow-up at monthly intervals

15. The patient is at increased risk for all of the following extra pulmonary complications EXCEPT

- a. Meningitis
- b. Pancytopenia
- c. Nephrolithiasis
- d. Diabetes mellitus
- e. First-degree atrioventricular conduction block

16. The most likely outcome of this patient's illness is

- a. complete remission without treatment
- b. complete remission after appropriate radiotherapy and chemotherapy
- c. remission followed by recurrence within five years
- d. disabling dyspnea from pulmonary fibrosis
- e. death within two years.

17. The patient returns to your office six months later. He noted no further blood in the sputum until two days ago, when he began coughing 2-3 tablespoons of clots or fresh blood every few hours. Repeat chest roentgenogram shows a new cavitory density in the right upper lobe; it is otherwise unchanged. A tomogram of the density is shown above, right. The evaluation and management of this patient's hemoptysis now should include each of the following EXCEPT

- a. Spirometry
- b. fiberoptic bronchoscopy
- c. measurement of Aspergillus precipitins in serum
- d. sputum examination by cytology and bacteriology laboratories
- e. Intravenous administration of amphotericin

18. Although the patient's hemoptysis again subsides spontaneously, two months later you are called to the emergency room to evaluate him. He has just coughed up 600 ml of fresh blood over the previous eight hours. The initial evaluation and management now should include each of the following EXCEPT

- a. notification of a thoracic surgeon
- b. placement of a suction apparatus at the bedside
- c. immediate bronchoscopic examination of the airways
- d. placement of the patient in the decubitus position with the right side down
- e. administration of high-dose morphine or codeine until the recently increased cough has been suppressed

19. Bronchial breath sounds are found in all except:

- a. Collapse with patent bronchus
- b. Bronchial asthma
- c. Superficial big empty cavity with patent bronchus
- d. Bronchopleural fistula
- e. Bronchiectasis

ANSWER KEYS

1. INTERSTITIAL LUNG DX

1.B	2.C	3.D	4.E	5.B
6.A	7.A	8.B	9.B	

2. ASTHMA

1.D	2.E	3.D	4.B	5.E
6.C	7.C	8.D	9.E	

3. COPD

1.A	2.C	3.A	4.B	
5.E	6.A	7.D	8.B	

4. PULMONARY EMBOLISM

1.E	2.C	3.A	4.C	
5.E	6.A	7.E	8.B	

5. RESPIRATORY FAILURE

1.D	2.C	
-----	-----	--

T.B

1.B	2.D	3.A	4.C	5.C
6.B	7.	8.B	9.D	

6. AERD

1.A 2.A

7. OBSTRUCTIVE SLEEP APNEA

1.E 2.B

TENSION PNEUMOTHORAX

1.B	2.B	3.B	4.B	
-----	-----	-----	-----	--

8. PNEUMONIA

1.E 2.D 3.C 4.C

ABG

1.C

9. SARCOIDOSES

1.D 2.E

MIX

1.C	2.D	3.B	4.D	5.E
6.E	7.E	8.B	9.B	10.D

11.C	12.B	13.D	14.B	15.D
16.A	17.E	18.E	19.B	

RENAL MEDICINE,**ELECTROLYTES,
ACID BASE BALANCE**

1.	RENAL MEDICINE	49
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1. RENAL MEDICINE

1. Two weeks after recovery from a severe bout of pharyngitis, an 11 year old girl is seen because of the acute onset of periorbital edema, hematuria, malaise, nausea and headache. Which of the following findings is expected?

- a. Hypotension
- b. Increased antistreptolysin O titer
- c. Marked hypoalbuminemia
- d. Polyuria
- e. Positive urine cultures for β -hemolytic streptococci

2. A 26 years old man presents with hematuria. His wife states that he has had a sore throat for the past 2 days and that he has had hematuria a few times in the past, also concomitantly with a sore throat. She states that his urine usually returns to a normal clear yellow color after a few days. Which of the following is the most likely diagnosis?

- a. Alport syndrome
- b. Goodpasture syndrome
- c. IgA nephropathy
- d. Membranoproliferative glomerulonephritis
- e. Poststreptococcal glomerulonephritis

3. In a patient with chronic renal failure, which of the following is the most important contributor of renal osteodystrophy?

- a. Impaired renal production of 1,25 dihydroxy vitamin D₃
- b. Hypocalcemia
- c. Hypophosphatemia
- d. Loss of vitamin D and calcium via dialysis
- e. The use of calcitriol

4. A 12 year old boy presents with two weeks history of pain in the knee joints associated with fever, colicky pain in the abdomen and a rash over the buttock area. Urinalysis showed proteinuria and haematuria.

The most likely diagnosis is:

- a. Post-streptococcal glomerulonephritis
- b. Henoch-schonlein purpura
- c. Minimal change disease with peritonitis
- d. Urinary Tuberculosis
- e. Sub-acute bacterial endocarditis

5. A 23 year old girl presented with left loin pain and haematuria. Her mother was hypertensive and died of a stroke at aged 54. On examination she had palpable kidneys. Blood pressure was 170/100. Serum creatinine was 23 mg/dl. The most likely diagnosis is;

- a. Adult Polycystic Kidney Disease
- b. Left ureteric stone
- c. Acute nephritis
- d. IgA nephropathy
- e. Alport's syndrome

6. Which of the following is the best investigation of choice for screening the relatives of patient with adult polycystic kidney disease.

- a. Serum creatinine
- b. Urea
- c. Ultra sound abdomen
- d. CT abdomen
- e. X ray KUB

7. All are features of Nephritic syndrome EXCEPT

- a. Hematuria b. Hyper triglyceridemia
- c. Red cell cast d. Hypertension
- e. Periorbital edema

8. All are indications for renal biopsy EXCEPT

- a. Unexplained acute renal failure
- b. Diabetic nephropathy
- c. Good pasture syndrome
- d. Wagner's syndrome
- e. SLE nephritis

9. ACE inhibitors would be expected to slow the progression of renal insufficiency in which of the following conditions?

- a. Amphotericin induced nephropathy
- b. Analgesic nephropathy
- c. Autosomal dominant polycystic kidney disease
- d. Chronic glomerulonephritis with > 1 g/d proteinuria
- e. Contrast dye-associated nephropathy

10. A 10 years old boy presented with headache periorbital puffiness and pain and swelling in left knee. On examination he is having purpuric rash on legs. His labs are as follow; Hb=13gm, TLC=4500, PLATELETS=350000, PT/APTT=Normal, U/S = Normal, Creatinine = 1.5gm/d * I, Urine R/E (albumin + RBCs numerous).

- a. Post streptococcal glomerulonephritis
- b. IgA nephropathy
- c. Henoch schonlein purpura
- d. Menimal change disease
- e. Alport syndrome

11. A 30 year old patient presented with right side weakness. CT brain revealed S.A.H. Systemic examination revealed masses in flanks. BP = 190/120 Hb = 17gm / d * I TLC=5600, Creatinine 3.2, ECG= LVH, LFTs Normal, Urinary VMA normal diagnosis?

- a. Pheochromocytoma
- b. Adrenal hyperplasia
- c. Adult poly cystic disease

d. Renal artery stenosis

e. Aortic stenosis

12. A 13 years old boy presented with generalized body swelling. His labs are as follows HB 12gm/dl TLC 5400, Urine R/E(albumin +++., U/S abdomen normal, Triglyceride 700, serum albumin 2.1 gm. What is the most probable diagnosis?

- a. IgA nephropathy
- b. Minimal change disease
- c. Diabetic nephropathy
- d. Post streptococcal glomerulonephritis
- e. Membranous nephropathy

Q.13. The following is the most pathognomonic feature of glomerulonephritis on urine microscopy.

- a. WBC b. RBC c. Granular cast
- d. Hyaline cast e. Bile Pigments

14. The following is not a Contraindication to closed renal biopsy

- a. Deranged Coagulation Profile
- b. Thrombocytopenia
- c. Hematuria
- d. Uncontrolled Hypertension
- e. Solitary Kidney

Q.15. The following is not a feature of nephrotic syndrome.

- a. Proteinuria > 3.5 g
- b. Hypercholesteremia
- c. Reduced Serum Albumin
- d. Bleeding Diathesis
- e. Hyper coagulopathy

16. Which of the following casts found on routine urine microscopy are suggestive of glomerulonephritis?

- a. White cell cast b. Hyaline cast
- c. Waxy cast d. Red cell cast
- e. Crystal cast

17. A 16 year old boy is referred from department of ENT with deafness and hematuria. His father died due to ESRD. What is the most likely diagnosis?

- a. Minimal change disease
- b. Polycystic kidney disease
- c. Post streptococcal glomerulonephritis
- d. IgA nephropathy
- e. Alport's syndrome

18. Which of the following is investigation of first choice for a 15 year old girl with fever and dysuria?

- a. Ultrasound pelvis
- b. Urine R/E
- c. Peripheral smear
- d. Blood culture
- e. Intravenous urography

19. Thiazide diuretics act through effect on which site of the kidney?

- a. Cortical collection ducts
- b. Early distal tubule
- c. Late distal tubule
- d. Proximal tubule
- e. Thick ascending limb (loop of Henle).

20. A 15 years old student presented with generalized body swelling. Which of the following is least consistent with nephrotic syndrome?

- a. Hematuria
- b. Low serum albumin
- c. >3gm proteinuria/24hour
- d. High serum cholesterol
- e. Fat-bodies in urine

21. A 60 Years old man is on dialysis due to polycystic kidney disease, was referred for medical checkup. Which of the following is least associated with his disease?

- a. Mitral regurgitation
- b. Sub arachnoid hemorrhage.
- c. Mitral stenosis
- d. Aortic regurgitation
- e. Circle of Willis aneurysm

22. A 33 years old deaf man has presented with a family history of renal failure. Which of following match with his diagnosis?

- a. Good Pasture syndrome
- b. Alports syndrome
- c. IgA nephropathy
- d. Churg strauss syndrome
- e. Nephritic syndrome

23. A 10 year female presented with periorbital puffiness especially after getting up from sleep. She has ascites and pedal edema. Urine R/E shows 4+ proteinuria with no RBC cast. What is the likely diagnosis out of the following?

- a. SAIDH
- b. Nephritic Syndrome
- c. Nephrotic Syndrome
- d. Acute Renal Failure
- e. Congestive Cardiac Failure

24. A 10 years old boy presents with severe proteinuria, hypoalbuminemia, generalized edema and hyperlipidemia. The patient improves on an empiric trial of corticosteroids with complete resolution of proteinuria. Which of the following is the most likely diagnosis?

- a. Diabetic nephropathy
- b. Focal segmental glomerulosclerosis
- c. Lupus nephropathy
- d. Membranous glomerulosclerosis
- e. Minimal change disease

25. A 5 years old boy diagnosed with poststreptococcal glomerulonephritis was admitted to the hospital several weeks ago. Over the last few weeks, his clinical state has not improved. Severe Oliguria has developed, his serum creatinine has continued to rise and his glomerular filtration rate has decreased by 50%, since his admission to the hospital. Which of the following is the most likely diagnosis?

- a. Alport syndrome
- b. Membranoproliferative glomerulonephritis

- c. Membranous glomerulonephritis
- d. Rapidly progressive glomerulonephritis
- e. Renal papillary necrosis

26. A 10 year female presented with periorbital puffiness especially after getting up from sleep. She has ascites and pedal edema. Urine R/E shows 4+ proteinuria with no RBC cast. What is the diagnosis?

- a. SAIDH
- b. Nephritic Syndrome
- c. Nephrotic Syndrome
- d. Acute Renal Failure
- e. Congestive Cardiac Failure

27. A 28-year-old man has sudden onset of shortness of breath and right-sided pleuritic chest pain. He has had the nephrotic syndrome for two years, and biopsy-proven membranous glomerulonephritis that failed to respond to prednisone. On physical examination he is tachypneic and in moderate distress. He has 3+ pitting edema of the lower extremities. Roentgenogram of the chest is normal. Arterial blood gases include a P_{O_2} of 62 mm Hg and a P_{CO_2} of 22 mm Hg. Electrolytes are normal. Which one of the following would be appropriate to perform at this time?

- a. Excretory urogram of
- b. Renal venography
- c. Biopsy of the lung
- d. Repeat kidney biopsy
- e. None of the above

28. A 49-year-old woman with known polycystic renal disease and a serum creatinine of 3.0 mg/dl comes to the emergency room because of abdominal and flank pain. She states that she noted some blood-tinged urine the preceding day. Physical examination shows blood pressure of 180/105 mm Hg, pulse of 92 per minute, and temperature of 38°C. There is no orthostasis. Large bilateral upper quadrant masses are palpated; the right is somewhat tender. Bowel sounds are normal. A

plain film of the abdomen reveals large upper quadrant masses bilaterally. An abdominal sonogram shows large polycystic kidneys with multiple overlapping echoes. A few areas in the upper pole of the right kidney have complex echoes. No solid masses are seen. Urinalysis shows 1+ protein, RBC's >100/hpf, and WBC's 5-10/hpf. Which of the following is the most likely cause of the patient's condition?

- a. Renal infarction
- b. Urinary infection
- c. Renal cell carcinoma
- d. Hemorrhage into a renal cyst
- e. Arteriovenous malformation of the kidney

29. A 45yr old man who has a 10 year history of insulin- dependent diabetes comes to the emergency room because of fever, chills, and flank pain radiating to the right lower quadrant. He reports mild feverishness for about one day, with the sudden onset of the flank and abdominal pain over the last two hours. He believes he passed some solid material in the urine earlier in the day but did not collect it. Physical examination shows an ill-appearing man; temperature is 39°C. There is right costo-vertebral angle tenderness as well as deep right upper quadrant tenderness. Laboratory studies show:

Electrolytes normal

Blood urea nitrogen 34 mg/dl

Serum creatinine 1.0 mg/dl

White blood cells 13,500/mm³

Hematocrit 41%

Urinalysis shows pH 6.0, >100 WBC's/hpf, and 50 RBC's/hpf; some white blood cell clumps are seen, along with a large amount of debris. A renal ultrasound suggests mild dilatation of the right renal pelvis and upper right ureter. The kidney size is 12 cm bilaterally. A radiograph of the kidney, ureter, and bladder (KUB) shows a nonspecific gas pattern and a radiopaque mass at the right ureteropelvic

junction. Which of the following is the most likely diagnosis?

- Renal abscess
- Uncomplicated pyelonephritis
- A uric acid stone with infection
- A calcium oxalate stone with infection
- Renal papillary necrosis with infection

30. A 22 year old woman presents with fever, malaise, generalized arthralgias and a skin rash over the nose and malar eminences. Which one of the following possible findings has the greatest significance in the overall prognosis for the patient?

- Atypical verrucous vegetations of the mitral valve
- Glomerular subendothelial immune complex deposition
- Immune complexes at the dermal epidermal junction in skin
- Perivascular fibrosis in the spleen
- Pleuritis

31. Two weeks after recovery from a severe bout of pharyngitis, an 11 year old girl is seen because of the acute onset of periorbital edema, hematuria, malaise, nausea and headache. Which of the following findings is expected?

- Hypotension
- Increased antistreptolysin O titer
- Marked hypoalbuminemia
- Polyuria
- Positive urine cultures for β -hemolytic streptococci

2. ELECTROLYTE DISTURBANCES

1. A 54 year old woman has presented with episodes of abdominal ache, vomiting and postural hypotension. She also has a dark pigmentation of her skin. A diagnosis of Addison's disease was made. What is the most likely electrolyte abnormality expected in this patient?

- High Na^+ , Low K^+
- Low Na^+ , High K^+
- Low Na^+ , Low K^+
- High Na^+ , High K^+
- Low Na^+ , Normal K^+

2. A 22 years old woman goes to the emergency department because she feels very weak and is having muscle cramping and fasciculations. Blood chemistry studies demonstrate plasma potassium of 1.5 mEq/L on questioning, she admits to chronic use of laxatives and diuretics to control her weight. Which of the following ECG changes would be most characteristics of changes related to her K^+ level?

- Increased u wave amplitude
- Prolongation of the P wave
- Shortening of the QT interval
- Tall, symmetric, peaked T waves
- Widening of the QRS complex

3. Which of the following is the most likely electrolytes imbalance for a 25 year old man who is having weakness and difficulty in getting up from bed early in morning? He had similar episodes after having rice & sweets in dinner.

- High calcium
- Low Potassium
- Low zinc
- High sodium
- High magnesium

4. Which of the following is the emergency treatment of choice for a 55 year old diabetic ESRD patient who is having shortness of breath and tall-T waves on ECG?

- Glucose & insulin
- Spironolactone & Salbutamol
- spironolactone & salbutmol
- Renal transplantation
- Salbutamol & normal saline

5. A 45 years old woman presents with thirst, abdominal pain and history of renal stones. What electrolyte disturbance is present?

- Hypocalcemia
- Zinc deficiency
- Hyponatremia
- Hypercalcemia
- Hyperkalaemia

6. A 40-year-old woman treated with spironolactone and lisinopril for heart failure presents with bradycardia. ECG shows tall, tented 't' waves. What electrolyte disturbance do you expect?

- a. Hypokalaemia
- b. Hyperkalaemia
- c. Hyponatremia
- d. Hypercalcemia
- e. Hypernatremia

7. A 30-year-old woman presents with tetany, perioral paraesthesia and carpopedal spasm after thyroid surgery. What electrolyte disturbance is present?

- a. Hypocalcemia
- b. Zinc Deficiency
- c. Hyponatremia
- d. Hypercalcemia
- e. Hyperkalaemia

8. A 28-year-old woman with a 15-year history of insulin-dependent diabetes is brought to the emergency room in a disoriented state. She has a two-day history of upper respiratory infection and has been vomiting for the past day. Laboratory tests include:

Serum electrolytes

Sodium 100 mEq/L

Potassium 6.0 mEq/L

Chloride 74 mEq/L

Bicarbonate 6 mEq/L

Serum glucose 540 mg/dl

Blood urea nitrogen 88 mg/dl

Serum creatinine 3.8 mg/dl

Plasma osmolality 368 mOsm/kg

Plasma ketones positive at a 1:32 dilution

The laboratory notes that the patient's plasma is lipemic.

Arterial blood studies

Pco₂ 21 mm Hg PH 7.04

Urine 55 mEq/L Sodium 4+

Glucose 4.9

What is the major mechanism contributing to this patient's hyponatremia?

- a. Osmotic diuresis
- b. Impaired free water clearance
- c. Increased distal delivery of an impermeant anion
- d. Laboratory artifact in the measurement of serum sodium
- e. ADH effect based on a physiologic nonosmotic stimulus

9. A 66-year-old man with recently diagnosed oat cell carcinoma of the lung, without apparent central nervous system metastases, comes to the hospital with confusion. There is no history of vomiting and he takes no medicine. Physical examination reveals obtundation without any localizing findings. There is no clinical evidence of extracellular fluid (ECF) depletion. Laboratory tests include:

Serum electrolytes 108 mEq/L

Sodium 4.4 mEq/L

Potassium 82 mEq/L

Chloride 20 mEq/L

Bicarbonate 6 mg/dl

Blood urea nitrogen 0.7 mg/dl

Serum creatinine 3.8 mg/dl

Serum uric acid 50 mEq/L

Urine 12 mEq/L

Sodium 5.0

PH 860 mOsm/kg

Osmolality

What is the major mechanism contributing to this patient's hyponatremia?

- a. Osmotic diuresis
- b. Impaired free water clearance
- c. Laboratory artifact in the measurement of serum sodium
- d. ADH effect based on a physiologic nonosmotic stimulus
- e. Decreased total body water with a larger decrease in total body sodium

3. BLOOD PH ABNORMALITIES

1. Which of the following is the most likely electrolytes imbalance for a 25 year old type-1 diabetic who presented with shortness of breath and uncontrolled diabetes with normal echocardiography and X-ray chest?

- a. Respiratory acidosis
- b. Metabolic alkalosis
- c. Respiratory alkalosis
- d. Metabolic acidosis
- e. None of the above

2. A 43 years old patient of CRF presented with shortness of breath and nausea and vomiting having deranged renal functions. What is the most likely acid-base pattern expected in this patient?

- a. Metabolic alkalosis
- b. Respiratory acidosis
- c. Metabolic acidosis
- d. Respiratory alkalosis
- e. Compensated respiratory alkalosis

3. For which of the following causes of metabolic alkalosis is determination of urine chloride concentration significant?

- a. Bartter's syndrome
- b. Diuretic abuse
- c. Surreptitious vomiting
- d. Primary hyperaldosteronism
- e. Cushing's syndrome

4. UREMIA / AKI

1. A 40 years old male with pre-existing glomerulonephritis having proteinuria and hematuria suddenly deteriorates and presents with oliguria and serum $K^+ = 7.8 \text{ mmol/L}$, Urea = 13 mmol/L , creatinine = 342 mmol/L GFR 19 mL/h .

The best management would be?

- a. Calcium supplement
- b. Calcium resonate enema 30g
- c. 10 units insulin with 50% dextrose
- d. Nebulized salbutamol
- e. 10 ml of 10% calcium gluconate

2. A 47 Year Old male admitted for workup of mediastinal mass, developed rash, Decreasing Urinary Jutput with raising Urea few days after extensive investigation for diagnosis and staging. What is the most likely cause of his recent problem?

- a. Bladder out flow obstruction
- b. Radio Contrast Associated Nephritis
- c. Membranous Nephropathy
- d. Pyelonephritis
- e. Metastasis to the Kidney

3. A 30 years old female received from labour room after delivering a baby with post partum hemorrhage with deranged renal functions (Creatinine 16, urea 300 gm/dl.. Her labs are as follows: HB 12 gm/dl, TLC 25000(neutrophils 70%, Paltelets 90,000, PT/APTT prolonged. What is the likely cause of renal failure?

- a. Interstitial nephritis
- b. Acute tubular necrosis
- c. Obstructive nephropathy
- d. Cresentic nephropathy
- e. Halothane toxicity

4. A 47 Year Old male admitted for workup of mediastinal mass, developed rash, Decreasing Urinary Output with raising Urea and Creatinine few days after CT Scan Thorax. What is the most likely cause of his recent problem?

- a. Radiations
- b. Radio Contrast associated nephritis
- c. Membrane neuropathy
- d. Polycystic Kidney Disease
- e. Metastasis of the kidney

5. CKD

1. A 45 years old patient on hemodialysis for one week has noted that his blood pressure is more difficult to control. Her reports good compliance with his medications, which include erythropoietin, ferrous, sulfate, vancomycin, and vitamin D. his blood pressure is 180/99 mmHg. Which of the

following is the most likely cause for the worsening control of his blood pressure?

- a. Erythropoietin
- b. Ferrous sulfate
- c. vancomycin
- d. Vitamin D
- e. Uremia

2. A 65 years old woman on hemodialysis for chronic renal failure requires an urgent dental extraction for an abscessed tooth. Of the following, the most appropriate agent to administer to reduce the risk of significant bleeding would be:

- a. Aminocaproic acid
- b. Conjugated estrogen
- c. Desmopressin
- d. Erythropoietin
- e. Fresh frozen plasma

3. A 50 years old male with end stage renal disease presented with generalized body pains. His labs are as follow. HB 12gm/dl, serum calcium low, phosphate high, alkaline phosphatase raised. What is the most effective treatment for his body pains?

- a. Paracetamol
- b. NSAIDs
- c. Opioids
- d. Vitamin D
- e. One alpha capidol

4. A 50 years old male with end stage renal disease presented with fatigue, shortness of breath on exertion and progressive pallor. His labs are as follow: HB 7 gm/dl, TLC 7,000, serum ferritin is normal. What is the most effective treatment for his anemia?

- a. Iron (intravenous.
- b. Folic acid
- c. Erythropoietin
- d. Iron (Oral.
- e. Vitamin B12

5. Which of the following is the most suitable treatment for an anemic chronic kidney disease

patient with Hb of 8gm/dl, MCV=80f1 & serum ferritin of 800?

- a. Intravenous iron
- b. Folic acid
- c. Vitamin-B12
- d. Erythropoietin
- e. Albendazole

6. HEMATURIA / UTI

1. An 18 year old woman presents with suprapubic pain, urinary frequency, dysuria and hematuria for the past hour. Urine tests show the presence of pyuria but no white cell casts. Physical examination is remarkable only for suprapubic tenderness on palpation. Which of the following is the most likely diagnosis?

- a. Acute pyelonephritis
- b. Chronic Pyelonephritis
- c. Cystitis
- d. Fanconi Syndrome
- e. Nephrocalcinosis

2. A 55 years old male presents with dull loin pain, hematuria, weight loss and palpable mass in right flank. What is the most probable diagnosis?

- a. Benign Prostatic Hyperplasia
- b. Chronic kidney disease
- c. Renal Artery Stenosis
- d. Renal cell Carcinoma
- e. Polycystic kidney disease

3. A 20 years old student presented with blood in urine. Recently he had sore throat. Which of the following is most likely to suggest a non-glomerular source for his blood in urine?

- a. Hematuria
- b. Low serum albumin
- c. >3gm proteinuria/24hour
- d. High serum cholesterol
- e. Fat-bodies in urine

4. A 28 year old woman presents with fever, dysuria, urinary frequency and flank tenderness. The urine contained numerous neutrophils and many white cell casts. Urine protein was moderately increased.

Urine culture revealed bacteria. The most likely causative organism is

- Escherichia coli
- Haemophilus influenzae
- Neisseria gonorrhoeae
- Proteus vulgaris
- Pseudomonas aeruginosa

5. A 78 year old man with long-standing prostatic nodular hyperplasia dies of a stroke. At autopsy, both kidneys demonstrate coarse asymmetric renal corticomedullary scarring, deformity of the renal pelvis and calyces, interstitial fibrosis and atrophic tubules containing eosinophilic proteinaceous casts. These findings are most suggestive of

- Berger disease
- Chronic analgesic nephritis
- Chronic pyelonephritis
- Membranoproliferative glomerulonephritis
- Renal papillary necrosis

7. MIX

1. A 50 year old gentleman was started on ibuprofen and allopurinol for gout. He had received a renal transplant 3 years ago and had been taking steroids, cyclosporine and azathioprine. One month later, he presented with fatigue and was found to have severe pancytopenia. The most likely cause for his pancytopenia is;

- Azathioprine toxicity
- Cyclosporin toxicity
- Hypersplenism
- Myelo-fibrosis
- Pernicious Anaemia

2. A 40 years old man is brought to the emergency room by his friends. Apparently, he has ingested some unknown medication in a suicide attempt. The patient is disoriented to time. His temperature is 39.3 C (103 F), blood pressure is 120/85 mmHg, pulse is 100/min and irregular, and respirations are 22/min. the skin is flushed and dry. Dilated pupils and muscle twitching are also noted on physical

examinations. ECG reveals prolonged QRS complexes. Hepatic transaminases are normal and blood gas analysis shows a normal pH. These findings are most likely due to intoxication by which of the following substances?

- Acetaminophen
- Alcohol
- Benzodiazepines
- Monoamine oxidase (MAO) inhibitors
- Tricyclic antidepressants

3. A 20 years old male received from jail with history of shortness of breath and vomiting. His examination shows multiple bruises on body. His labs are as follows: HB 12 gm/dl, TLC 6,000, Platelets 300,000, creatinine 16, CPK 1500, Echocardiography is normal. What is the most probable diagnosis?

- Chronic renal failure
- Left ventricular failure
- Hemolytic uraemic syndrome
- DIC
- Rhabdomyolysis

4. A 30 year old man has difficulty in opening the mouth. Two days back he acquired wound on left foot during road side motor cycle accident. Which of the following is the most likely organism?

- E.Coli
- Staphylococcus
- Clostridium botulinum
- Actinomyces
- Clostridium tetani

5. A 60 year old male presented with urgency, frequency, hesitancy and burning micturition. He is also complaining of post void dribbling with poor stream. What is the diagnosis?

- BPH (Benign Prostatic Hyperplasia)
- Chronic Kidney Disease
- Nephrotic Syndrome
- Renal Cell Carcinoma
- Diuretic Therapy

6. A 20 year old boy develops polyuria and polydipsia after head injury. What is the most likely diagnosis out of the following options?
- Central diabetes insipidus
 - Nephrogenic diabetes insipidus
 - Primary polydipsia
 - Osmotic diuresis
 - Hypercalcemia
7. A 60-year-old man presents with headaches, blurred vision and itching over the whole body (the last after a hot bath.. Positive findings on examination include plethoric facies and moderate splenomegaly, Hapmatocrit: 65%
- Hodgkins Lymphoma
 - Essential Thrombocytosis
 - Waldenstrom's Macroglobulinemia
 - Myelofibrosis
 - Polycythemia Rubra Vera
8. A 45-year-old man presents with fever, weight loss, tiredness and gout. On examination there is splenomegaly. White blood cell count is $112 \times 10^9/L$. The Philadelphia chromosome is detected.
- Chronic Lymphocytic Leukemia
 - Chronic Myeloid Leukemia
 - Hodgkin's lymphoma
 - Essential Thrombocytosis
 - Hereditary Spherocytosis
9. A 25-year-old man presents with enlarged painless lymph nodes in the neck. His peripheral blood film shows Reed-Sternberg cells. What is the diagnosis?
- Non-Hodgkins Lymphoma
 - Chronic Myeloid Leukemia
 - Hodgkin's lymphoma
 - Paroxysmal Nocturnal Hemoglobinuria
 - Acute Leukemia
10. A 23-year-old man presents with a week history of fever and sore throat. He developed a macular rash after being prescribed ampicillin by his GP. On

examination he has enlarged posterior cervical nodes, palatal petechiae and splenomegaly.

- Malaria
- Infectious Mononucleosis
- Infective Endocarditis
- Enteric Fever
- Rheumatic Fever

11. A 59-year-old male truck driver comes to the emergency room because of lethargy, nausea, and vomiting over the preceding five days and markedly decreased urinary volume. He has a history of mild hypertension treated with dietary salt restriction. For the past several months he has had urinary hesitancy and nocturia. Blood pressure is 105/60 mm Hg; pulse rate is 125 per minute. There is a 20 mm Hg orthostatic drop in blood pressure. Physical examination shows prostatic enlargement. The patient is unable to produce a urine specimen. The bladder is not distended by percussion. Plain film of the abdomen shows two renal outlines of normal size. Ultrasound examination of the kidneys shows normal renal size; there is no dilatation of the renal pelvis or ureters. Laboratory studies show:

Serum electrolytes

Sodium 132 mEq/L

Potassium 5.2 mEq/L

Chloride 90 mEq/L

Bicarbonate 22 mEq/L

Blood urea nitrogen 110 mg/dl

Serum creatinine 13 mg/dl

Calcium 8.1 mg/dl

Phosphate 6.2 mg/dl

Hemoglobin 13.5 g/dl

After rehydration with 5 liters of normal saline, the patient remains anuric. The next morning, repeat ultrasound examination of the kidneys shows bilateral distention of the renal pelvis. Placement of a bladder catheter yields 2000 ml of clear urine, and urine production continues at 1000 ml per hour over the next five hours.

RENAL MEDICINE

Which of the following is most likely to explain the abnormalities of renal function seen in this patient?

- Chronic renal failure
- High circulating levels of vasopressin
- Obstructive uropathy at the level of the prostate
- Renal artery stenosis
- A toxic nephropathy

12. A 70 years old man with a mass in lung develop Hyponatremia and increased effective circulating volume. The most likely diagnosis is:

- Nephrotic syndrome
- SIADH (syndrome of inappropriate ADH secretion).
- Renal tubular acidosis
- Renal mets from Bronchogenic carcinoma
- Lung mets from renal cell carcinoma

ANSWER KEYS

1. RENAL MEDICINE

1.B	2.C	3.A	4.B	5.A
6.C	7.B	8.B	9.C	10.C
11.C	12.B	13.B	14.C	15.D
16.D	17.E	18.B	19.D	20.A
21.C	22.B	23.C	24.E	25.D
26.C	27.B	28.D	29.E	30.B

31.B

2. ELECTROLYTE DISTURBANCES

1.B	2.A	3.B	4.A	5.D
6.B	7.A	8.A	9.B	

3. BLOOD PH ABNORMALITIES

1.D 2.C 3.C

4. UREMIA / AKI

1.E	2.B	3.B	4.B
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5. CKD

1.A	2.C	3.E	4.C	5.D
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6. HEMATURIA / UTI

1.C	2.D	3.A	4.A	5.C
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7. MIX

1.A	2.E	3.E	4.D	5.A	6.A
7.E	8.B	9.C	10.B	11.C	12.B

CNS MEDICINE

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1. VASCULITIS

1. A 72 year old woman is recovering from an episode of temporal arteritis. She is due to be discharged of a gradually decreasing dose of prednisolone tablets. She is being counselled on the risk of stopping the tablets suddenly. Which single symptoms should this patient be warned to expect if she stops her tablets suddenly?

- a. Abdominal pain
- b. Depression
- c. Dizziness on standing
- d. Fits
- e. Weakness in upper arms and thighs

2. A 48 year man comes with severe headache, dimness of vision and tenderness of temporal arteries on both sides, what should be the approach?

- a. Do an ESR first
- b. Get his temporal artery biopsied and wait for the result
- c. Get a CT scan brain
- d. Start steroids
- e. Seek ophthalmological consultation

2. NEUROLOGICAL DISORDERS

1. A 32 year old man has been dribbling saliva from the right side of his mouth and having difficulty in closing his right eye over the last 48 hours. His wife has noticed that his face is drooping on the same side. He has normal facial sensation but can not raise his eyebrow on the right side. Which is the single most appropriate next step?

- a. No treatment
- b. Start oral acyclovir
- c. Start oral acyclovir + oral prednisolone
- d. Start oral prednisolone
- e. Urgent MRI head scan

2. A 34 year old man has been dribbling out of the right side of his mouth for 12 hours. He thought the television was particularly loud this morning. Whilst his wife has commented that his face is lopsided and he looks like as he is grimacing rather than smiling. Which single feature in the examination confirms the most likely diagnosis?

- a. Asymmetry of the oropharynx
- b. Difficulty breathing
- c. Discharge from his ear
- d. Ipsilateral breathing
- e. Unilateral eyebrow raise

3. Which one of the following scenarios requires urgent neurological investigations?

- a. Internuclear ophthalmoplegia
- b. Sudden onset foot drop
- c. Seventh nerve palsy with onset over several days
- d. Sudden onset cerebellar syndrome
- e. Painless incomplete third nerve palsy

4. A 69-year old man has a 6 month history of progressive difficulty with ambulation. Examination of his gait reveals that the feet appear glued to the floor and that he has great difficulty initiating movement. Once he starts walking, his gait is a halting, frequently broad-based movement that is done more easily with guidance and support. Retropulsion does occur and he has difficulty turning. The most likely cause of this gait disorder is:

- a. Vestibular disease
- b. Cerebellar disease
- c. Sensory deprivation
- d. Frontal lobe disease
- e. Corticospinal tract disease

5. 20 year old college student presents with deteriorating gait for the last one week. He has history of upper respiratory tract infections. On examination there is lower limb weakness and reflexes are absent. There are non sensory signs. The most likely diagnosis is

- a. Guillain barre syndrome
- b. Chronic inflammatory poly neuropathy
- c. Porphyria
- d. Charcot Marie Tooth disease
- e. AIDS

6. A 72 year old man is brought to the emergency room by his wife because of confusion. He abruptly became confused eight hours ago while working with her in the garden. He has had no alteration in consciousness and when examined alert and seemingly frustrated with this problem. Physical examination shows vital signs to be normal. The patient knows his name and his wife's name, but does not know where he is, the date or the time. He is alert and attentive and has a normal neurologic examination. The most likely diagnosis is

- a. Hysteria
- b. Hepatic encephalopathy
- c. Transient global amnesia
- d. Partial complex status epilepticus
- e. Absence(petit mal) status epilepticus

7. A 48 year old dentist consults you because of tremor which is interfering with his work. The tremor has come on gradually over the past several years and seems more prominent after the ingestion of caffeine, he notices that in the evening after work, an alcoholic beverage will decrease the tremor. Except for the tremor, his neurological examination is normal, in particular there is no focal weakness, rigidity and bradykinesia. When he holds out his arms and extends his fingers, you detect a rapid fine tremor of both hands, the tremor goes away when he rests his arms at his side. What is the best next step in the management of this patient?

- a. MRI scan to visualize the basal ganglia
- b. Electromyogram and nerve conduction studies to more fully characterize the tremor
- c. Therapeutic trial of propranolol
- d. Therapeutic trial of primidone
- e. Neurology referral to rule out motor neuron disease

3. PARKINSON'S DX

1. A 61 year old man presents with a six month history of progressive unilateral stiffness and bradykinesia together with a resting tremor. Which treatment option is most appropriate?

- a. Levodopa treatment alone
- b. Levodopa and carbidopa combined
- c. Dopamine agonist alone
- d. Selegiline alone
- e. No treatment should be given until the patient is functionally disabled

2. Which of the following signs is not indicative of Parkinson's disease?

- a. Rigidity
- b. Bradykinesia
- c. Micrographia
- d. Action tremor
- e. Loss of postural reflexes

3. A 60 year old patient with Parkinson disease presented with worsening of her tremors and rigidity. She confirms that she takes

levodopa/carbidopa at regular intervals. Her doctor reports that this is off/on phenomenon for this drug. He replaced this drug with which of the following drugs?

- a. Amantadine
- b. Pramipaxole
- c. Rasagiline
- d. Entacapone
- e. Procyclidine

4. Your friend from swat brings his grandfather for inability to go downhill and a tendency to fall. On examination he has expressionless face, tremors and poverty of movements. What treatment options do you have for his treatment?

- a. Amantadine
- b. Physical therapy
- c. Levodopa
- d. Anticholinergic
- e. All of them

5. A 70 year old patient presents with bradykinesia, resting tremors, cogwheel rigidity and mask like face. Which one of the following is used for diagnosis of this condition?

- a. CT scan brain
- b. EEG
- c. Lumbar puncture
- d. Nerve conduction studies
- e. Clinical features

6. Each of the following has been implicated in producing parkinsonism except

- a. MPTP
- b. Reserpine
- c. Haloperidol
- d. Chlorpromazine
- e. Trihexyphenidyl

4. STROKE SYNDROME

1. A 69 year old woman has had a stroke. Her left upper and lower limbs are paralyzed and she is

having difficulty in speaking. Which anatomical site is most likely affected?

- a. Hippocampus
- b. Cerebellum
- c. Internal capsule
- d. Thalamus
- e. Brain stem

2. A 54-year old man has collapsed suddenly following a headache. He has hypertension and takes warfarin for prosthetic heart valve. GCS = 4 and dilated left pupil. What is the single most likely diagnosis?

- a. Anterior circulation stroke
- b. Posterior circulation stroke
- c. Intracerebral hemorrhage
- d. Intracerebellar hemorrhage
- e. Pontine hemorrhage

3. A 54-year old man with cerebrovascular accident presents with ataxia, intention tremors and slurred speech. Which part of the brain is affected by the stroke?

- a. Inner ear
- b. Brain stem
- c. Diencephalon
- d. Cerebrum
- e. Cerebellum

4. A 67 year old man has been brought into the emergency department in the early hours of the morning with a head injury following a fall at home 30 minutes ago. All he remembers is finding himself on the floor, he is not sure whether he lost consciousness. Which single feature should prompt a request for an urgent CT head scan?

- a. He fell down two flights of stairs
- b. He has vomited twice since the fall
- c. He is more than 65 years old
- d. He suffers from epilepsy
- e. His Glasgow Coma Scale Score (GCS) is currently 14

5. Which of the following statements concerning subarachnoid hemorrhage is incorrect?

- a. Inappropriate antidiuretic hormone secretion frequently occurs
- b. Electrocardiographic abnormalities stimulating myocardial infarction frequently occur
- c. Vasospasm is the usual cause of initial lateralizing signs
- d. CT scan of the brain frequently identifies blood in the subarachnoid space
- e. The prognosis for a ruptured aneurysm is worse than for a bleeding arteriovenous malformation

6. A 60 year old patient presents to you with right hemiplegia, right hemisensory loss and aphasia for the last 12 hours. What would be your first management step?

- a. Start aspirin
- b. Do an MRI brain
- c. Do a non-contrast CT brain
- d. Give Tpa
- e. Refer to a neurosurgeon

7. A 60 year old patient with hypertension comes to you with recurrent ischemic strokes. He is on aspirin 75mg and statins. Which of the following is indicated?

- a. Clopidogril
- b. Dipyridamole
- c. Increase aspirin to 150mg
- d. Diclopidine
- e. Warfirin

8. A 60 year old hypertensive patient poorly compliant with medicines complains of sudden severe headache and fall unconscious. On examination he is deeply comatose with normal reacting pupils, bilateral upgoing planters, positive neck stiffness and BP 180/120 mmHg. What is the most likely diagnosis?

- a. Cerebral infarction
- b. Subarachnoid hemorrhage
- c. Acute meningitis
- d. Hypertensive encephalopathy
- e. Brain tumor

9. In a patient with cerebral infarction and atrial fibrillation, which is the most appropriate investigation

- a. Lipid profile
- b. Brain angiography
- c. EEG
- d. Echocardiogram
- e. Carotid Doppler

10. A 60 years old patient presents to you with hemiplegia, right hemisensory loss and asphasia for the last 12 hours. What would be your first management step?

- a. Start aspirin
- b. Do MRI brain
- c. Do a non-contrast CT brain
- d. Give tPA
- e. Refer to a neurosurgeon

11. A young man of 25 presented to the emergency department with severe headache, vomiting and confusion of sudden onset. On examination his BP is 180/110mmHg. Signs of meningism present. Temperature is normal. GCS score is 9/15 . What is the most likely diagnosis?

- a. Acute pyogenic meningitis
- b. Subarachnoid hemorrhage
- c. Cerebrovascular accident
- d. Brain tumor
- e. Cerebral malaria

12. An 80 year old man presents to the physician with sudden onset weakness of right side of the body and loss of speech. He has been hypertensive for 10 years with poor drug compliance.

- a. Subarachnoid hemorrhage
- b. Right frontal lobe infarct
- c. Left parietal lobe infarct
- d. Intracranial tumor
- e. Left cerebellar stroke

13. A 35 year old previously healthy woman suddenly develops a severe headache while lifting weights. A minute later she has transient loss of consciousness. She awakes with vomiting and a continued headache. She describes the headache as "the worst headache of my life". She appears uncomfortable and vomits during the physical examination. Blood pressure is 140/85, pulse rate is 100/min, respirations are 18/min and temperature is 36.8 degrees. There is neck stiffness. Physical examination including careful cranial nerve and deep tendon reflex testing, is otherwise normal. Which of the following is the next best step in evaluation?

- CT scan without contrast
- CT scan with contrast
- Cerebral angiogram
- Holter monitor
- Lumbar puncture

5. MENINGITIS

1. A 74 year old female presents with headache and neck stiffness to the ED. Following a LP the patient was started on ceftriaxone. CSF culture = *Listeria monocytogenes*. What is the appropriate treatment?

- Add IV amoxicillin
- Change to IV amoxicillin + gentamicin
- Add IV ciprofloxacin
- Add IV co-amoxiclav
- Continue IV ceftriaxone as monotherapy

2. The following CSF findings are compatible with which of the following diagnosis. Proteins 110mg/dl (upto 44mg/dl), cells 150/mm³ (upto 4/mm³) with 90% lymphocytes, glucose 20mg/dl (60-80mg/dl)

- Pyogenic meningitis
- Viral meningitis
- Tuberculosis meningitis
- Encephalitis
- Cerebral malaria

3. A 16 year old girl was brought to hospital with 4 days history of fever, headache, vomiting and impaired consciousness. O/E, temperature was 102°F and she had nuchal rigidity. CSF showed pressure of 25cm H₂O, WBC 220/u/l with predominant lymphocytosis, proteins 88mg/l, Glucose of 70mg/dl. Her blood sugar was 120mg/dl. What is the most likely diagnosis?

- Acute viral meningitis
- Acute bacterial meningitis
- Tuberculous meningitis
- Fungal meningitis
- Aseptic meningitis

4. A young lady presented with fever, headache and confusion of 3 days duration, her CSF examination revealed proteins of 650mg/dl, glucose 20mg/dl, cells 3500/cmm, mostly polys. Gram's stain of the CSF shows Gram negative intracellular diplococci.

- Cerebral malaria
- Viral meningitis
- Tuberculous meningitis
- Meningococcal meningitis
- Fungal encephalitis

6. MOTOR NEURON DX

1. A 65 year old man with difficulty in swallowing presents with an aspiration pneumonia. He has a bovine cough and fasciculating tongue. Sometimes as he swallows food it comes back through his nose. Choose the single most likely cause of dysphagia from the given options:

- Bulbar palsy
- Esophageal carcinoma
- Pharyngeal pouch
- Pseudobulbar palsy
- Systemic sclerosis

2. A 50 year old man is diagnosed with amyotrophic lateral sclerosis. Which of the following statement about this disease is correct?

- There is usually a long history of remissions and exacerbation

- b. Patient develops sensory loss following a dermatomal distribution
- c. Many patients have focal seizure
- d. There is degeneration of both upper and lower neuron
- e. Treatment can effectively stop further progression

7. EPILEPSY/SEIZURE

1. A 44 year old man attends a pre-assessment clinic prior to the laproscopic repair of his umbilical hernia. He has epilepsy and has been taking sodium valporate 600mg PO twice daily for the past 5 years. Which single examination should be performed prior to surgery?

- a. Blood levels of sodium valporate
- b. Clotting profile
- c. Fasting venous blood glucose
- d. Full blood count
- e. Urea and electrolytes

2. 20 year old male gives history of blank episodes. His wife describes that these occur while he is talking. He stops talking and make groaning noise. He makes lip smacking noises and swallowing emotions. His right hand is clenched in a fist. His right hand often pulls at the bottom of the shirt. The most likely diagnosis is

- a. Grand mal epilepsy
- b. Strokes adam attack
- c. Temporal lobe epilepsy
- d. Absence seizures
- e. Pseudo seizure

3. Which metabolic state is not a cause of seizure?

- a. Hyponatremia
- b. Hypernatremia
- c. Hypoxia
- d. Hypocalcemia
- e. Hypokalemia

4. When would you treat a seizure for the first time as epilepsy on long term therapy?

- a. With tongue bite
- b. An observed seizure
- c. In people above the age of fifty

- d. Abnormal EEG
- e. Partial seizure

5. A 26 year old known epileptic woman on antiepileptic drugs for last 2 and a half years delivered a baby with a cystic lesion on the back which is transillumination positive. What is the cause of the condition?

- a. Maternal folic acid deficiency secondary to anti-epileptics
- b. Fetal folic acid deficiency secondary to maternal deficiency caused by anti-epileptics
- c. BU deficiency in fetus secondary to anti-epileptics
- d. EBV infection transmitted from vulnerable mother because of anti-epileptic drugs
- e. None of the above

6. A 28 year old woman lost consciousness at home an hour ago and is brought in to the emergency department. She has no previous medical history and this has never happened previously. Her mother is worried that she has had a fit which single feature from the history is most likely to confirm her mother's concerns?

- a. Biting the end of her tongue
- b. Feeling tired and wanting to sleep
- c. Incontinence of urine
- d. Still being confused when the ambulance arrived
- e. Twitching after she fell to the ground

8. NEUROGENERATIVE DISORDER

1. You are asked to see a 30 year old man . He has increasing problems with his walking since he was 11 years old. He has dysarthria and nystagmus. He has become increasingly breathless for the last 6 weeks. On examination he has signs of cardiac failure but no murmur. CXR shows cardiomegaly and pulmonary edema, the most likely diagnosis is

- a. Freidrich ataxia
- b. Spinocerebellar ataxia
- c. Charcot Marie Tooth disease
- d. Alcoholic cardiomyopathy
- e. Cerebellar tumour

2. The following symptoms/signs are compatible with the diagnosis of Guillain Barre syndrome

- a. Absent vibration sense
- b. Weakness of limbs
- c. Parasthesia
- d. Absent reflexes
- e. Difficulty in breathing

3. A young man develops a weakness of both the lower limbs for 6 days. It was preceded by acute gastroenteritis 2 weeks ago. The weakness has progressed to affect upper limbs since yesterday. On examination both the knee and ankle jerks are absent. Sensations are intact in all the limbs.

- a. Spinal cord transaction
- b. Diphtheria
- c. Poliomyelitis
- d. Pott's disease
- e. Guillain barre syndrome

4. Patients with Guillain barre syndrome may develop respiratory failure especially in the acute phase. Which one of the following is used for monitoring respiratory function in these patients?

- a. Forced vital capacity
- b. CT scan chest
- c. EMG
- d. Arterial blood gases
- e. Chest

5. A 72 year old man has progressive difficulty with balance together with abrupt falling, slurred speech, dysphagia, emotional lability and vague changes in personality. When examined he can not voluntarily gaze upward or downward; however, fixation of the eyes on a target, followed by tipping the head up and down, shows that the eyes move. Optokinetic and caloric induced tests fails to demonstrate the fast component of the resulting nystagmus. The neck is stiff and extended and the limbs show some cogwheel rigidity. The face is expressionless and the gait is festinating. When pushed, the patient topples over easily. Finger to nose dysmetria is absent. Which of the following is the most likely diagnosis?

- a. Parkinson's disease

- b. Striatonigral degeneration
- c. Dystonia musculorum deformans
- d. Progressive supranuclear palsy
- e. Olivopontocerebellar degeneration

9. ALZ / DEMENTIA

1. 70 year old female presents with confusion, complex visual hallucinations of people and animals and dementia. On examination there is significant postural drop of BP, mini mental score of 20/30, cogwheel rigidity and bradykinesia, the most likely diagnosis is

- a. Idiopathic parkinson's disease
- b. Wilson disease
- c. Alzheimer disease
- d. Progressive supranuclear palsy
- e. Lewy bodies dementia

2. Which test is diagnostic for multiple sclerosis?

- a. Contrast enhanced brain CT scan
- b. MRI brain and brainstem
- c. Visual and auditory evoked potentials
- d. CSF proteins cytological disproportion
- e. CSF oligoclonal bands

3. A 73 year old male presents with a 12 months history of falls. His relatives have also noticed rather strange behaviour of late and more recently he has had episodes of enuresis. On examination, disorientation to time and place, broad-based, clumsy gait. What is the most probable diagnosis?

- a. Cerebral atrophy
- b. Pituitary adenoma
- c. CVD
- d. Syringomyelia
- e. Narcotic drugs

4. Which of the following statements about multi-infarct dementia is incorrect?

- a. Depression is rarely a prominent feature
- b. It represents approximately 20% of all patients with dementia

- c. Prominent disturbances of gait, station and limb motor function are seen
- d. It appears most often in concert with diabetes mellitus and/or hypertension
- e. Step like progression with partial recovery between periodic losses of function is typical

5. Which of the following statements regarding Alzheimer's disease is false?

- a. Focal or generalized seizures occur in 10-15% of cases
- b. Memory disturbance for recent events is usually on early findings
- c. Senile plaques and neurofibrillary tangles are found in the cerebral cortex
- d. The disease is rapidly progressive, usually advancing to a fatal termination within a year
- e. Most examples occur sporadically but a family history of dementia and down's syndrome is seen in upto 25% of cases

6. A 36 years old woman was referred to you with a 3 week history of blurred vision and unsteady gait. She has experienced progressive fatigue for the past 6 months; one year ago, she abruptly lost vision in the right eye which returned to normal after 10 days. She has lost 5lbs in the past week and has developed insomnia. On examination, vital signs are normal and the patient is alert, awake and oriented with no evidence of dementia or aphasia but with an inappropriate euphoric effect. She has bilateral horizontal nystagmus with mild rapid alternating movement in the right upper extremity. Generalized hyper-reflexia is present. Vibration sense is slightly decreased in both feet. Which of the following is the most likely diagnosis?

- a. Multiple sclerosis
- b. Multiple cerebral infarcts
- c. Metastatic choriocarcinoma
- d. Amyotrophic lateral sclerosis
- e. Acquired immunodeficiency syndrome

10. MIX

1. A 50 year old lady with weak limbs when examined was found to have burn marks on finger tips wasted and weak hands with diminished reflexes. She also has weak spastic legs and dissociated sensory loss. What is the diagnosis?

- a. Multiple sclerosis
- b. Syringomyelia
- c. Motor neuron disease
- d. Guillian-barre
- e. Freidriech's ataxia

2. A 58 year old man complains of sudden attack of syncope. It occurs without warning and with no sweating, dizziness or light-headedness. He believes episodes tend to occur when he turns his head too quickly or when he is shaving. Physical examination is unremarkable. He has no carotid bruits and cardiac examination is normal. Which of the following is the best way to make a definitive diagnosis in this patient?

- a. ECG
- b. Carotid massage with ECG monitoring
- c. Holter monitor
- d. Electrophysiologic study to evaluate the AV node
- e. Carotid duplex ultrasonogram

3. Brown sequard syndrome is caused by

- a. Unilateral cord lesion
- b. Central cord lesion
- c. Thalamic lesion
- d. Transverse thoracic spinal cord lesion
- e. Cervical spine injury

4. Lesion of the optic nerve at optic chiasma causes

- a. Homonymous hemianopia
- b. Bitemporal hemianopia
- c. Homonymous upper quadrinopia
- d. Homonymous lower quadrinopia
- e. Total blindness

5. Cerebral venous thrombosis is caused by

- a. Oral hypoglycemic drugs
- b. Anti coagulants
- c. Oral contraceptives
- d. Anti hypertensive agents
- e. NSAIDs

6. The cause of characteristic decrease in response on EMG is

- a. Eaton lambart syndrome
- b. Myasthenia gravis
- c. Multiple sclerosis
- d. Motor neuron disease
- e. Epilepsy

7. Which of the following condition is associated with Carpel Tunnel Syndrome?

- a. Diabetes
- b. Hypothyroidism
- c. Rheumatoid arthritis
- d. Obesity
- e. All of them

8. Pituitary tumor causing compression of optic chiasma will cause

- a. Bitemporal hemianopia
- b. Homonymous hemianopia
- c. Homonymous upper quadrant anopia
- d. Homonymous lower quadrant anopia
- e. Binasal hemianopia

9. A 60 year old female complains of diplopia and generalized weakness that is worse in evening. The most likely diagnosis is

- a. Guillain barre syndrome
- b. Myopathy
- c. Hypothyroidism
- d. Myasthenia gravis
- e. Cushing's syndrome

10. An obese female presents with severe headache fundi. Fundal examination reveals bilateral papilledema. CT scan is normal. CSF opening pressure is 50 mm, the diagnosis is

- a. Brain tumor
- b. Migraine
- c. Benign intracranial hypertension
- d. Meningitis
- e. Subarachnoid hemorrhage

11. In patients with myasthenia gravis, CT thorax is done to exclude:

- a. Lymphoma
- b. Teratoma
- c. Thymoma
- d. Retrosternal goiter
- e. Midline Granuloma

12. A 38 year old male presented with recurrent bouts of excruciating periorbital headache on the right side for the last 3 years. Each episode lasts for 3-4 weeks and recurs every year. It is associated with vomiting, lacrimation and studded nostril. What is the most likely diagnosis?

- a. Chronic sinusitis
- b. Cluster headache
- c. Classic migraine
- d. Tension type headache
- e. Atypical facial pain

13. An elderly lady who is poorly looked after by the family, complains of backache for 1 year. For the last months, she has developed gradual weakness of both the lower limbs. She has used lots of painkillers without relief. O/E, there is tenderness at T6 level. What is this lady suffering from

- a. Osteoporotic vertebral collapse
- b. Spinal tumor
- c. Guillain barre syndrome
- d. Stroke
- e. Vitamin B12 deficiency

14. A 35 year old female presented with vertigo for the last 5 days. She gets spinning sensation while getting off the bed in morning lasting for few seconds. There was no tinnitus or hearing loss. Neurological examination showed normal cerebellar functions. Fundi were normal, Nystagmus present, Dix hallpike test was positive, Rhomberg test was negative. Cardiovascular system was normal. What is the most likely diagnosis?

- a. Vestibular neuronitis
- b. Meniere's disease
- c. Benign paroxysmal positioning vertigo
- d. Acoustic neuroma
- e. Multiple sclerosis

15. Your ENT colleague requested you to see a patient admitted to his ward for the right CSOM (Chronic Suppurative Otitis media) who develops fever, headache and impaired consciousness for 3 days. You found the patient to be pyrexia having right 6th cranial nerve palsy. Fundi reveal full right optic cup. Which investigation will you order to help final diagnosis

- a. CT brain
- b. CSF exam
- c. Pure tone audiometry
- d. MRI with MRV
- e. Blood culture

16. In the treatment of persistent tension type headache, not responding to simple analgesic and relaxation techniques, which of the following medications would be most suitable?

- a. Diazepam
- b. Amitriptyline
- c. Carbamazepine
- d. Olanzapine
- e. Ergotamine

17. A 28 year old woman had a severe headache for the past 2 weeks. Her family doctor examines her eyes. The left eye constricts directly to light with a consensual response in the right. However as he swings the torch from the left to right eye, he notes that both pupils appear to dilate. Which would be single most accurate explanation of this finding?

- a. Argyll Robertson's pupil on the right
- b. Myotonic right pupil
- c. Normal variation
- d. Raised intracranial pressure
- e. Relative afferent pupillary defect on the right

18. A 56 year old man has headache of gradually increasing severity for the last 5 months. His son has noticed a change in his personality and decline in memory for the same duration. What is most likely the cause of his ill health?

- a. Right sided CVA
- b. Brain stem infarct
- c. Left frontal lobe tumor
- d. Venous sinus thrombosis
- e. Viral encephalitis

19. The clinical features associated with raised intracranial pressure include all of the following except:

- a. Vomiting
- b. Morning headache
- c. Decreased consciousness
- d. Papilledema
- e. A falling blood pressure

20. A 63 year old woman is referred to you with progressive headache of two weeks duration. Her husband states that she is unable to sleep, cries frequently and is very depressed. Past medical history is unremarkable. Her local physician has prescribed diazepam and aspirin. Two weeks ago the hemoglobin was 13.1g/dl and white blood cell count was 6700/mm³. The patient is awake, alert and weepy and has mild pallor. Physical examination shows that the temporalis, trapezius, masseter and posterior cervical muscles are all tender to palpation. The neck is supple and Kernig's and Brodzinski's signs are absent. Fundoscopic examination is benign. The remainder of the examination is unremarkable. Which one of the following would most likely be of assistance in establishing a diagnosis?

- a. Lumbar puncture
- b. Dexamethasone suppression test
- c. Computed tomography scan of the brain
- d. Repeat complete blood count and sedimentation rate
- e. Thyroid function tests, rheumatoid factor and cervical spine roentgenogram

21. A 42 year old man is brought to the hospital by his wife because of diplopia. He awakened 30 min ago and while putting on his shoes noted that he could not see his left foot. On physical examination

the patient appears slightly lethargic and has a supple neck. Pulse rate is 82 per minute, blood pressure is 140/90mmHg. Ocular examination shows minimal right ptosis. The right pupil is 1mm larger than the left and both are reactive. The fundi are benign. There is a left homonymous hemianopsia. While you are examining the patient's reflexes, he becomes progressively drowsy and obtunded. There is a left hemiparesis. Rechecking his eyes you find the right eye deviated laterally. The left eye shows brisk doll's eye movements but the right eye shows no doll's eye movements, up, down or medially. The patient becomes rigid with diffuse muscular shivering. Which one of the following would be most appropriate to do next?

- Check the oculovestibular reflexes with ice water
- Order computed tomography scan of the brain immediately
- Perform a lumbar puncture
- Incubate, hyperventilate and administer mannitol intravenously
- Administer 40% nasal oxygen, then complete the neurological examination

22. Each of the following may produce hearing loss except:

- Furosemide
- Gentamicin
- Salicylates
- Erythromycin
- Cis-platinum

23. Subacute bacterial endocarditis often presents with each of the following except

- Papilledema
- Personality changes
- Cerebral infarction
- Intracerebral hemorrhage
- Transient ischemic attacks

24. A 30 year old man complains of unilateral headaches. The headaches did not respond to triptan therapy at that time, but after 6 weeks the headache resolved. He has had 3 or 4 spells of severe headaches since then. Currently his headaches have been present for the past 2 weeks. The headaches start with a stabbing pain just below the right eye. Usually the affected eye feels irritated with increased lacrimation. Each pain lasts from 60-90 minutes. The neurological examination including the cranial nerve examination is now normal. What is your best approach to treatment at this time?

- Prescribe oral sumatriptan for use at the onset of headache
- Prednisone daily for 2 to 4 weeks
- Obtain MRI scan of the head with gadolinium contrast
- Begin propranolol 20mg bid
- Refer for neuropsychiatric testing

25. A 38 year old woman is brought to the emergency room after suffering a seizure. There is a two days history of headache and lethargy but no previous seizures. On examination, she has a poor attention span and decreased memory. The plantar response on the left is extensor. CT scan of the brain is normal. Which of the following is the most likely diagnosis?

- Herpes simplex encephalitis
- Glioblastoma multiforme
- Intracerebral hemorrhage
- Embolic occlusion at the trifurcation of the right middle cerebral artery
- Todd's paralysis

ANSWER KEYS**1. VASCULITIS**

1.C 2. D

2. NEUROLOGICAL DISORDERS

1.C	2.E	3.D	4.D
5.A	6.C	7.C	

3. PARKINSON'S DISEASE

1.B	2.D	3.B	4.E	5.E	6.E
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4. STROKE SYNDROME

1.C	2.C	3.E	4.B	5.C	6.C
7.B	8.B	9.D	10.C	11.B	12.C

13.

5. MENINGITIS

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

6. MOTOR NEURON DX

1.A 2.D

7. EPILEPSY/SEIZURE

1.B	2.C	3.E	4.D	5.B	6.A
-----	-----	-----	-----	-----	-----

8. NEURODEGENERATIVE DISORDER

1.A	2.A	3.E	4.A	5.C
-----	-----	-----	-----	-----

9. ALZ/DEMENTIA

1.E	2.B	3.A	4.A	5.D	6.A
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10. MIX

1.B	2.B	3.A	4.B	5.C
6.B	7.E	8.A	9.D	10.C
11.C	12.B	13.A	14.C	15.A
16.B	17.E	18.C	19.E	20.D
21.D	22.D	23.A	24.B	25.A

ENDOCRINE MEDICINE

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1. HYPOPARATHYROIDISM

2. Pseudohypoparathyroidism (of the type associated with somatic abnormality)

- Is not a congenital disorder
- Is not associated with mental retardation
- Is a cause of short stature
- Is usually associated with a normal serum calcium
- Responds to parathyroid hormone administration

78. Pseudohypoparathyroidism (of the type associated with somatic abnormality)

- Is not a congenital disorder
- Is not associated with mental retardation
- Is a cause of short stature
- Is usually associated with a normal serum calcium
- Responds to parathyroid hormone administration

2. DIABETES INSIPIDUS

4. A 55 year old woman with a history of severe depression and radical mastectomy for carcinoma breast 1 year previously develops polyuria, nocturia, and excessive thirst. Laboratory values are as follow

Serum electrolytes: $\text{Na}^+ = 149 \text{ mEq/L}$; $\text{K}^+ = 3.6 \text{ mEq/L}$

Serum calcium: 9.5 mg/dl ,

Blood glucose: 110 mg/dl ,

Blood urea nitrogen: 30 mg/dl ,

Urine osmolality: 150 mOsm/L

Which of the following is the most likely diagnosis?

- Psychogenic polydipsia
- Renal glycosuria
- Hypercalciuria
- Diabetes insipidus
- Inappropriate antidiuretic hormone syndrome

47. A 55 year old woman with a history of severe depression and radical mastectomy for carcinoma of the breast 1 year previously develops polyuria, nocturia, excessive thirst. Laboratory values are as follows:

Serum electrolytes: $\text{Na}^+ = 149 \text{ mEq/L}$; $\text{K}^+ = 3.6 \text{ mEq/L}$,

Serum calcium: 9.5 mg/dl , Blood glucose: 110 mg/dl ,

Blood urea nitrogen: 30 mg/dl , Urine osmolality

: 150 mOsm/L . Which of the following is the most likely diagnosis?

- Psychogenic polydipsia
- Renal glycosuria
- Hypercalciuria
- Diabetes insipidus

3. DIABETES MELLITUS

1. A 17-year-old man has lost 6kg over the past 2 months. He has also been excessively thirsty and not his usual self. A venous blood sample is taken. Random venous blood glucose = 16mmol/L(300mg %). Which is the single most appropriate next step in management?

- a. 24th capillary glucose diary
- b. Fasting venous blood glucose
- c. Oral glucose tolerance test (OGTT)
- e. Repeat random venous blood glucose
- f. Start treatment for diabetes

2. A 68-year-old man undergoes retinal screening. He has type 2 diabetes and uses insulin twice daily. He is told that there is evidence of new vessel formation and asks his doctor for the significance of this finding. Which is the single most appropriate response?

- a. Areas of the eye that had previously been damaged have regenerated
- b. He is likely to lose his sight in this eye within 3 months
- c. His diabetic control is good and his vision is improving
- d. His disease is progressing and getting harder to control
- e. This is a normal finding in someone with type 2 diabetes

3. A 55 year old man is seen in the clinic for follow up of type 2 diabetes mellitus. He feels well' has been exercising regularly' and has had good control of his blood glucose on oral metformin' with HbA1c of 6.4% He has a history of mild hypertension and hyperlipidemia. Which of the following statements is correct regarding routine testing for diabetic patients?

- a. Dilated eye examination twice yearly
- b. 24-hour urine protein annually
- c. Home fasting blood glucose measurement at least once per week

d. Urine microalbumin annually

e. Referral to neurologist for peripheral neuropathy evaluation

4. A 15 years old boy is brought to medical OPD by his mother in drowsy state. He is a known case of 1 diabetes Mellitus. Three days ago he developed productive cough and fever and he stopped insulin. On examination he is dehydrated, pulse is 130/min, BP 100/70 mmHg, temperature 104.0 F. His breathing is de and rapid. Crepitations on the right side of the chest. Blood sugar is 500 mg/dl, TLC 16000 with 90 % neutro blood urea 60 mg/dl and serum creatinine 1.4 mg/dl. What is your most likely diagnosis?

- a. Hyperosmolar non ketotic coma
- b. Hypoglycemic brain injury
- c. Diabetic ketoacidosis
- d. Acute renal failure
- e. Diabetes ketoacidosis with pneumonia

5. A 14 years old boy presented with one month history of polyuria, polydipsia and polyphagia. On examination, he is thin lean and vitally stable. Systemic examination is normal. Investigations revealed fasting blood sugar of 400 md/dl and HBA 1c of 9.4 % The best treatment strategy for this patient is

- a. Diet control
- b. Oral sulphonylureas
- c. Oral metformin
- d. Start insulin
- e. Diet plus metformin

6. In a diabetic patient metaformin is contraindicated in the presence of

- a. Neuropathy
- b. Retinopathy
- c. Rental failure
- d. Vasculopathy
- e. IHD

7. The following drugs can be used in diabetic painful neuropathy

- a. Carbamazepine
- b. Tricyclic
- c. Pre-Gabalin
- d. Sodium Valproate
- e. All of them

8. A 68 years old man undergoes annual retinal screening. He has type 2 diabetes and uses insulin twice daily.

Following the scan, he asks his doctor what causes the presence of cotton-wool spots in his report.

Which is the single most appropriate response?

- a. Areas of tissue starved of oxygen
- b. Deposits of fat
- c. Formation of new blood vessels
- d. Small swollen vessels
- e. Small bleed

9. A 17 year old man has lost 6kg over the past 2 months. He has also been excessively thirsty and not has usual self. A venous blood sample is taken. Random venous blood glucose = 16mmol/L. Which is the single most appropriate next step in management?

- a. 24h capillary glucose diary
- b. Fasting venous blood glucose
- c. Oral glucose tolerance test
- d. Repeat random venous blood glucose
- e. Start treatment for diabetes

10. A 46 years old lady was presented with recurrent vaginal discharge and was treated for pruritis vulvae. She had no history of polyuria & polydipsia. Her BMI is 30. Investigations showed FBS 144mg/dl, 246mg/dl and HbA1c of 7.4%. Which drug will be the most suitable option for initiating treatment for this lady?

- a. Glimeperide
- b. Insulin
- c. Metformin
- d. GLP-1 analogue
- e. Pioglitazone

11. A 45 year old gentleman with type 2 diabetes is reviewed in the clinic. Because of inadequate glycemia and an HbA1c of 8.5%, a sulphonylurea is added to his metformin. When would you repeat test?

- a. After 2 weeks
- b. After a month
- c. After 3 months
- d. After 8 months
- e. After one year

12. Metformin if used in a patient with significant renal impairment (eGFR of 30 ml/min) can lead of the following complication?

- a. Further worsening of renal function
- b. Hypoglycemia
- c. Hypertension
- d. Proteinuria
- e. Lactic acidosis

13. A 70 year old male with long standing diabetes presents with severe pain in his left thigh. On examination there is marked wasting of his quadriceps likely cause of his current complaint?

- a. Diabetic amyotrophy
- b. Myonecrosis of quadriceps
- c. Pyomyositis
- d. Polymyositis
- e. Diabetic mononeuropathy

14. A 55-year-old man is seen in the clinic for follow-up of type 2 diabetes mellitus. He feels well, has been exercising regularly, and has had good control of his blood glucose on oral metformin, with HbA1c of 6.4%. He has a history of mild hypertension and hyperlipidemia. Which of the following statements is correct regarding routine testing for diabetic patients?

- a. Dilated eye examination twice yearly
- b. 24-hour urine protein annually
- c. Home fasting blood glucose measurement at least once per week
- d. Urine microalbumin annually
- e. Referral to neurologist for peripheral neuropathy evaluation

4. HYPERTHYROIDISM

1. During a yearlong training program, a 23 years old female Pakistan Air Force officer falls in class rank from first place to last place. She has also noted a lower pitch to her voice and coarsening of her hair, along with an increased tendency toward weight gain, menorrhagia and increasing intolerance to cold. Which of the following laboratory abnormalities is expected?

- a. Increased serum free T₄
- b. Increased serum T₃ resin uptake
- c. Increased saturation of thyroid hormone-binding sites on thyroid-binding globulin
- d. Increased thyroid-stimulating hormone
- e. Decreased serum cholesterol

2. Grave's disease is characterized by

- a. Diffuse goiter
- b. Exophthalmos
- c. Pretibial myxoedema
- d. Thyroid bruit
- e. All of the above

3) Which of the following medicines used for hyperthyroidism is safe in pregnancy?

- a. Carbimazole
- b. Methimazole
- c. Propyl thiouracil
- d. Propranolol
- e. All of them

5. ADDISON'S DX

1. A 14 years old boy is seen because of increasing weakness, easy fatigability and weight loss over the past 3 months. In addition, he has recently developed nausea, vomiting and abdominal pain. His blood pressure is markedly decreased and he has increased pigmentation of his skin creases. These findings are suggestive of

- a. Cushing syndrome
- b. Secondary hyperaldosteronism
- c. Osteitis fibrosa cystica
- d. Addison disease
- e. 1 α -hydroxylase deficiency

2. A 50 years old obese man with BMI > 35 (otherwise asymptomatic) is referred to you by general practitioner for his persistently raised BP. You are suspecting secondary hypertension in this patient. Recalling causes of secondary hypertension, which of the following is not the cause of secondary hypertension.

- a. Polycystic kidney disease
- b. Pheochromocytoma
- c. Cushing syndrome
- d. Addison's disease
- e. Hyperthyroidism

3. A 28 years old lady who was treated for TB one year ago presented with fatigue, anorexia, low mood and weight loss. On examination she was tanned, BP 90/60mmHg, Pulse 76/min, GIT, Chest, CVS & CNS examination was unremarkable. Hb 12.8g/dl, TLC 7.3x10⁹/L, ESR 12, Na⁺ 124 mmol/L, K⁺ 5.7mmol/L, urea 42mg%, RBS 88mg/dl. Choose the most likely diagnosis.

- a. Chronic fatigue syndrome
- b. Reactivation of tuberculosis
- c. Psychological
- d. Diuretic use
- e. Addison's disease

6. THYROID NEOPLASM

1. On routine physical examination, a 28 years old woman is found to have a thyroid nodule. She denies pain, hoarseness, hemoptysis, or local symptoms. Serum TSH is normal. Which of the following is the best next step in evaluation?

- a. Thyroid ultrasonography
- b. Thyroid scan
- c. Surgical resection
- d. Fine needle aspiration of thyroid
- e. No further evaluation

2. The ideal treatment for a 80 year old patient with thyrotoxicosis due to toxic adenoma is

- a. Anti-thyroid drugs
- b. Surgery
- c. B-blockers
- d. Radioactive iodine
- e. Fortified iodine salt

3) On routine physical examination, a young woman is found to have a thyroid nodule. There is no pain, hoarseness, haemoptysis or local symptoms. Serum TSH is normal. The next step in evaluation is

- Ultrasonography
- Thyroid scan
- Surgical resection
- Fine needle aspiration of thyroid
- Do nothing

4. On routine physical examination, a 28 years old woman is found to have a thyroid nodule. She denies pain, hoarseness, hemoptysis, or local symptoms. Serum TSH is normal. Which of the following is the best step in evaluation?

- Thyroid Ultrasonography
- Thyroid scan
- Surgical resection
- Fine needle aspiration of thyroid
- No further evaluation

7 PANCREATIC NEUROENDOCRINE TUMORS

1. An insulinoma

- Is not associated with peptic ulceration
- May not be malignant
- Leads to hypoglycaemia after prolonged fast (48 h) in most cases
- Is usually associated with a raised insulin: proinsulin ratio
- Often releases insulin after glycine administration

2. An insulinoma

- Is not associated with peptic ulceration
- May not be malignant
- Leads to hypoglycaemia after prolonged fast (48 h) in most cases
- Is usually associated with a raised insulin: proinsulin ratio
- Often releases insulin after glycine administration

3. You are asked to evaluate a 38-year-old woman who has classic symptoms of hypoglycemia with

documented low plasma glucose levels. During a supervised fast in the hospital she is noted to develop hypoglycemia after four hours. Plasma insulin and C-peptide levels drawn at the time of symptoms are both markedly elevated. Which of the following is the most appropriate diagnostic test?

- Glucose tolerance test
- Glucagon stimulation test
- Tolbutamide stimulation test
- Superior mesenteric angiography
- Measurement of insulin-like growth factors

8. CONN SYNDROME

1. A 34 years old man is referred for evaluation of hypertension and persistent hypokalemia in spite of taking oral potassium supplements. Blood pressure is 180/110 mm Hg, Serum sodium is 149 mEq/L (normal 140- 148 mEq/L), potassium = 3.3 mEq/L (normal 3.6-5.2 mEq/L), bicarbonate = 29 mEq/L (normal 22-29 mEq/L), chloride 103 mEq/L (normal 98-107 mEq/L) and urea nitrogen = 23 mg/dl (normal 7-18 mg/dl.). Computed tomography demonstrates a 3 cm mass in the right adrenal gland. The most likely diagnosis is

- Addison disease
- Cushing syndrome
- Sipple syndrome
- DiGeorge syndrome
- Conn's syndrome

2. Which of the following is a recognized feature of primary hyperaldosteronism (Conn's syndrome)?

- Muscle weakness
- Hypotension
- High blood rennin level
- Hypokalaemia. Acidosis

3. Which of the following is a recognized feature of primary hyperaldosteronism (Conn's syndrome)?

- Muscle weakness
- Hypotension
- High blood renin levels
- Acidosis
- Hyperkalaemia

10. HYPOTHYROIDISM

1. A 45 years old lady come to a medical OPD with a complaint of increasing fatigue, somnolence, constipation and body aches. These symptoms have gradually increased over last two years. Her weight has A 45 years old lady has come to the medical OPD with a complaint of increasing fatigue, somnolence, increased the menstrual cycle is irregular and has difficulty in hearing. She looks pale. The skin is dry and the voice is hoarse. The pulse is 59/min and regular. Blood pressure is 130/80 mmHg. Thyroid function tests confirmed primary hypothyroidism.

What is the most sensitive test for thyroid function?

- Thyroid stimulating hormone (TSH)
- Radioactive iodine uptake
- Antibodies screening test
- Thyroid hormones T3, T4
- Serum thyroglobulin

2. A 46 year old woman has weight gain, sensitivity to cold, pulse = 50bpm, heart is enlarged with murmur. What is the single most likely diagnosis?

- Hypothyroidism
- Hyperthyroidism
- Cushing's syndrome
- Addison's disease
- Pheochromocytoma

3. On routine physical examination, a 28 years old woman is found to have a thyroid nodule. She denies pain, hoarseness, hemoptysis or local symptoms. Serum TSH is normal. Which of the following is the best next step in evaluation?

- Thyroid ultrasonography
- Thyroid scan
- Surgical resection
- Fine needle aspiration of thyroid
- No further evaluation

10. ACROMEGALY

1. A 42 years old female presented with 6 months history of worsening headache with deteriorating vision in both eyes and polyuria. She is taking

treatment for carpal tunnel syndrome. She has consulted her physician for menstrual irregularities and galactorrhea. She admitted rapid increase in the size of shoes and tight finger rings. Her BP was 190/110 the following is best treatment option for Acromegaly?

- Trans-sphenoidal surgery
- GH receptor antagonists
- Somatostatin analogues
- Dopamine antagonists
- Dopamine agonists

2. In a patient with Achromegaly presenting with a large macro adenoma with optic chiasm compression, the ideal treatment is

- Steroids
- Bromocriptine
- Radiation
- Surgery
- Chemotherapy

3. In a 24-year-old man, both symptoms and physical examination are suggestive of acromegaly; the patient is referred to you for evaluation. A random growth hormone level is 16 ng/ml (normal = 0-10). Which of the following is the next step?

- Referral to a neurosurgeon
- Referral for radiation therapy
- Glucose suppression test
- Treatment with bromoergocryptine
- Treatment with somatostatin infusion

11. AUTOIMMUNE THY DX

29. A 36 years old women presents with feeling of being tired and cold all the time. On examination she is having dull looking facial appearance, delayed relaxation of tendon reflexes and a firm non tender goiter. Blood tests reveal the following TSH = 24.3 mU/L (increased level), Free T4 = 5.48 mol/L (decreased level) Anti- A 36 years old woman presents with feeling of being tired and cold all the time. On examination she is thyroid peroxidase antibodies= positive, what is the most likely diagnosis?

- Primary atrophic hypothyroidism

- b. Pituitary failure
- c. De Quervain's thyroiditis
- d. Iodine deficiency
- e. Hashimoto's thyroiditis

12. CUSHING SYNDROME

1. A 28 years old married lady presented to the medical OPD with the complaints of weight gain and depression. Examination revealed that she is overweight, BP is 190/100 mmHg. Her skin is thin and there are bruises on the arm and legs. Recently she was examined by ophthalmologist who found that she had bitemporal hemianopia. The random blood sugar is 250 mg%. you are suspecting cushing syndrome, which of the following test is screening test of choice?

- a. Low dose DM suppression
- b. High dose DM suppression
- c. 24 hours urinary cortisol
- d. Serum cortisol levels
- e. Serum ACTH levels

2. The best screening test for cushing disease is

- a. 24 Hr urinary cortisol
- b. Adrenal CT
- c. Random cortisol
- d. ACTH level

3. An overweight 45 years old lady is seen in the OPD. She has a BP of 170/100 mmHg and is suspected to have Cushing's syndrome. The best initial investigation to distinguish this diagnosis from simple obesity is

- a. Adrenal CT scan
- b. Serum potassium and bicarbonate levels
- c. A midnight salivary cortisol level
- d. MRI brain
- e. 24 hour urinary free cortisol

4. A fifty year old lady with centripetal obesity, acne and hirsutism. The most likely diagnosis is

- a. Cushing's syndrome
- b. Diabetes mellitus

- c. Hypogonadism
- d. Hypothyroidism
- e. Simple obesity

13. OBESITY

1. An obese lady BMI more than 35 presents with blood sugar of 300 mg/dl. The best treatment option is

- a. Metformin
- b. Short Acting Insulin
- c. Long Acting Insulin
- d. Mix insulin
- e. Glibenclamide

2. The anti diabetic agent of choice for a fifty year old obese lady with mild hyperglycemia is

- a. Chlorpropamide
- b. Glibenclamide
- c. Insulin
- d. Repaglinide

3. The anti diabetic agent of choice for a fifty year old obese lady with mild hyperglycemia is

- a. Chlorpropamide
- b. Glibenclamide
- c. Insulin
- d. Metformin
- e. Repaglinide

15. HYPOGLYCEMIA

1. A 30 years old student presents with confusion, sweating, hunger and fatigue. Blood sugar is 40 mg/dl the patient has no history of diabetes mellitus, although her sister is an insulin-dependent diabetic. The patient has had several similar episodes over the past year, all occurring just prior to reporting for work in the early morning. At the time of hypoglycemia, the patient is found to have a high insulin level and a low C peptide level. Which of the following is the most likely diagnosis?

- a. Reactive hypoglycemia
- b. Pheochromocytoma
- c. hypercalcaemia
- d. Diabetes insipidus

2) A 30 years old normal weight student presents with confusion, sweating, hunger and fatigue. Blood sugar is 40 mg/dl. The patient has no history of diabetes mellitus, although her sister is an insulin-dependent diabetic. The patient has had several similar episodes over the past year, all occurring just prior to reporting for C peptide level. Which of the following is the most likely diagnosis?

- a. Reactive hypoglycemia
- b. Pheochromocytoma
- c. Factitious hypoglycemia
- d. Insulinoma
- e. Sulfonylurea use

3. A 24-year-old, insulin-dependent diabetic man is treated with 45 units NPH insulin every morning and evening. Although laboratory data show a hemoglobin A1 level of 7.6% (normal = 4-8%), he reports that his home measurement of plasma glucose levels--measured three times daily, at 7:00 AM, 11:00 AM, and 5:00 PM--are consistently greater than 180 mg/dl. The most likely explanation for these findings is

- a. Renal glycosuria
- b. Hyporeninemic hypoaldosteronism
- c. Nocturnal hypoglycemia
- d. Diabetic gastroparesis
- e. Insulin resistance

14. MIX

1. A tentatively female newborn has ambiguous genitalia. What appears to be a vagina is associated significantly enlarged clitoris resembling a penis. Other findings include hyponatremia, hyperkalemia and hypotension. Deficiency of which of the following is suggested by these findings?

- a. 11-Hydroxylase
- b. 17-Hydroxylase
- c. 21-Hydroxylase
- d. Amylin
- e. 1 α -Hydroxylase

2. A 45 years old male patient was admitted for a massive myocardial infarct in a coronary care unit. His fasting plasma biochemistry was: Na: 133 mmol/l, K: 4.4 mmol/l, Cl: 105 mmol/l, HCO₃: 23 mmol/l, creatinin 110 μ mol/l (60-120), Glucose (fasting): 8.9 mmol/l (3.5-6.4). What is the most likely diagnosis?

- a. Diabetes mellitus
- b. Diabetes insipidus
- c. Stress hyperglycemia
- d. Cushing's syndrome
- e. None of the above

3. A 40 years old woman presents to medical OPD with a three months history of tiredness, weight loss and vague abdominal pains, polyuria and polydipsia. Systemic examination is normal except a small mass in front of the neck. Chest x-ray normal, RBS 120 mg%, RFTS & TFTs are normal, serum calcium 16 mg/dl, seru phosphate decreased, alkaline phosphatase 500 IU/liter (normal 20-140). Ultra sound abdomen shows right re stones. What is the most likely diagnosis?

- a. Primary hyperparathyroidism
- b. Primary hyperthyroidism
- c. Vitamin D intoxication
- d. Chronic renal failure
- e. Sarcoidosis

4. In a 64 year old person a blood sugar level of more than 600 mg/dl, pH of 7.4, serum sodium of 156 mmoles and urea of 120 mg/dl is compatible with a diagnosis of

- a. Crushing's syndrome
- b. Diabetic ketoacidosis
- c. Lactic acidosis
- d. Urinic acedosis
- e. Hyper Osmoler Non Ketotic State

5. A 50 years old hypertensive lady was hospitalized for generalized tonic clonic fits for 1 day. Six months ago she recovered from subarachnoid hemorrhage. O/E, BP 150/85mmHg, GCS 9/15, Fundi normal. Urine output was 380ml/24 hours. Investigations showed Hb 12.2g/dl, WBC 7060, Platelets 250000, urea 30mg/dl, Serum creatinine 0.9 mg/dl, RBS 108mg/dl, Na⁺ 120 mmol/L, K⁺ 3.6mmol/L. ECG, CXR & CT brain were normal. What is most likely diagnosis?

- a. Addison's disease
- b. Nephrogenic diabetes insipidus
- c. Central diabetes insipidus
- d. Cerebral salt wasting
- e. Syndrome of inappropriate ADH secretion

6. A 18 year old man presented with headache increased height and increased shoe size diagnosis is

- a. Dwarfism
- b. Cretinism
- c. Gigantism
- d. Acromegaly
- e. Constitutional growth

7. A 45-year-old, obese woman is given a routine skull roentgenogram following a car accident; an enlarged sella turcica is noted. Endocrine testing shows no abnormalities and computed tomography (CT scan) reveals an empty sella. Which of the following is appropriate management of this patient?

- a. Transsphenoidal surgery
- b. Radiation therapy
- c. Bromocriptine therapy
- d. Hormone replacement
- e. Reassurance

8. You are called in consultation to see a 17-year-old boy with persistent 2% glycosuria; plasma glucose values are consistently less than 120 mg/dl. Which of the following is the most likely explanation of this patient's condition?

- a. Werner's syndrome
- b. Insulin resistance
- c. Renal glycosuria
- d. Maturity-onset diabetes of the young
- e. None of the above

9. Which of the following is not the classical feature of Addisonian crisis?

- a. A low blood sugar level
- b. A low plasma sodium
- c. A raised blood urea
- d. Fever
- e. Precipitation during pregnancy in a patient with chronic adrenal insufficiency

10. A 35 years old woman is seen 6 months after giving birth to a normal infant. She suffered severe cervical lacerations during delivery, resulting in hemorrhagic shock. Following blood transfusion and surgical repair, "postpartum recovery has so far been uneventful. She now complains of continued amenorrhea and loss of weight and muscle strength. Further investigation might be expected to demonstrate which of the following findings?

- a. Decreased serum cortisol
- b. Hypoestrogenism
- c. Hyperglycemia
- d. Increased hair growth in a male distribution pattern
- e. Increased serum free thyroxine

11. An acutely ill 18 year old female college student is brought to the emergency department by her roommate. The patient is febrile and markedly hypotensive and her mental status is obtunded. Numerous petechial and purpuric hemorrhages are scattered over the trunk and aspiration of a lesion reveals neutrophils engulfing gram-negative diplococci. Serum sodium is markedly decreased and serum potassium is increased. Coagulation testing reveals increased prothrombin time, activated partial thromboplastin time, and fibrin- fibrinogen

split products. Which of the following is most likely diagnosis?

- a. Conn syndrome
- b. Hyperprolactinoma
- c. Neuroblastoma
- d. Waterhouse-Friderichsen syndrome
- e. Sipple syndrome

12. In a patient with millary tuberculosis presenting with increased pigmentation fasting hypoglycemia and hypotension. The most likely diagnosis is

- a. Pituitary involvement
- b. Intestinal TB
- c. Tuberculous meningitis
- d. Adrenal involvement
- e. Tuberculous pericarditis

13. A 30 year old lady presents with increasing lethargy, weakness and episodes of fainting. She had delivered a baby a year ago complicated by severe Post Partum Hemorrhage. Since then she has not been able to lactate. She is hypotensive with slow relaxation of ankle reflexes. The most likely diagnosis is

- a. Hypothyroidism
- b. Adrenal failure
- c. Ovarian failure
- d. Hypopituitarism
- e. Pituitary Tumor

14. A 28 year old man has noticed that the tissue around his breasts has become increasingly swollen. are non-tender. He has recently started chemotherapy for testicular cancer. Which is the single most likely biochemical cause for this change?

- a. Decreased androgen
- b. Decreased dopamine
- c. Increased growth hormone
- d. Increased estrogen: androgen ratio
- e. Increased prolactin

15. A 35 years old woman is seen 6 months after giving birth to a normal infant. She suffered cervical

lacerations during delivery, resulting in hemorrhagic shock. Following blood transfusion and surgical repair, postpart muscle strength. Further investigation might be expected to demonstrate which of the following findings? recovery has so far been uneventful. She now complains of continued amenorrhea and loss of weight and

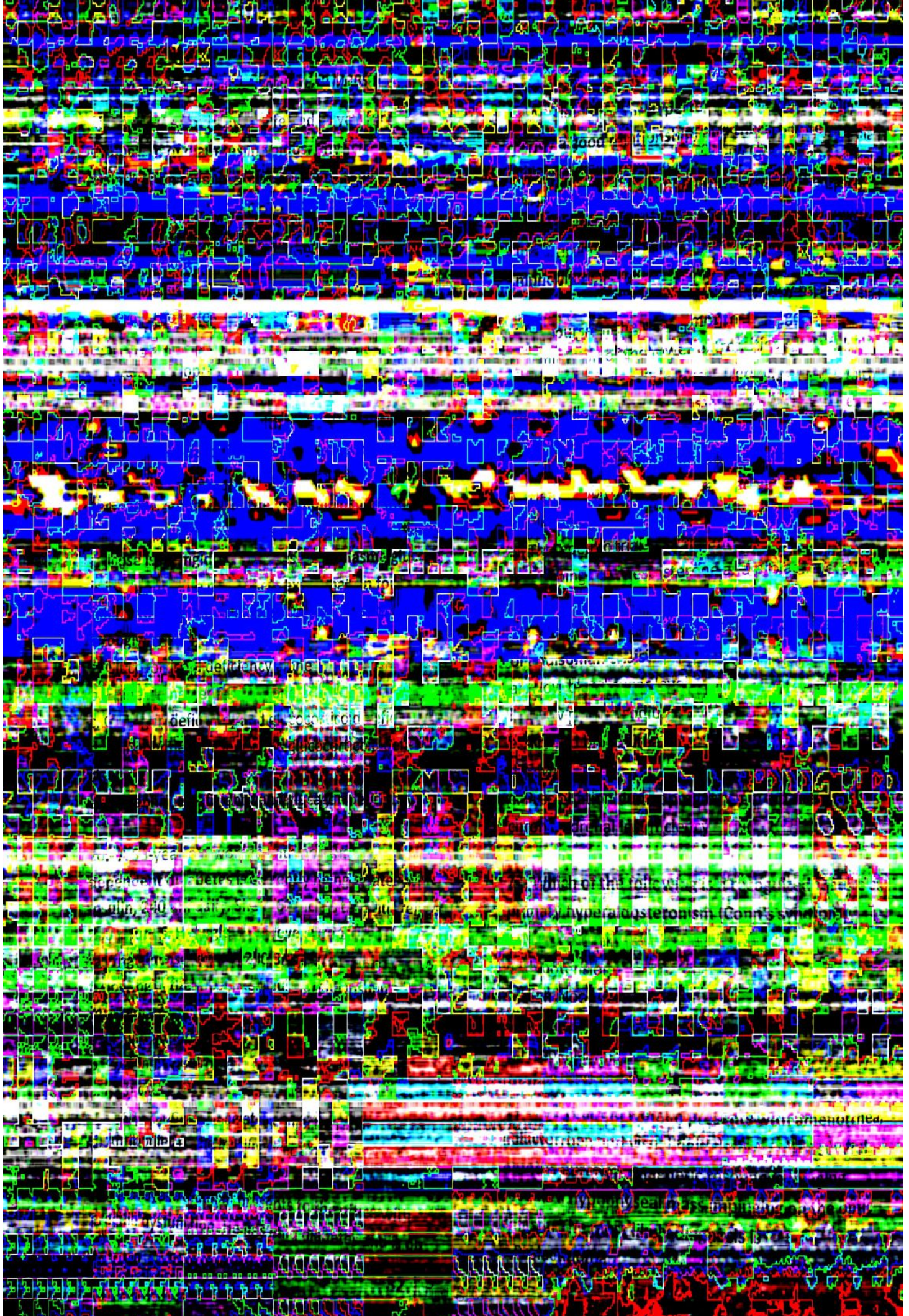
- a. Decreased serum cortisol
- b. Hyperestrinism
- c. Hyperglycemia
- d. Increased hair growth in a male distribution pattern
- e. Increased serum free thyroxine

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- c. Neuroblastoma
- d. Water house friderichson syndrome
- e. Sipple's syndrome

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- a. Decreased Androgen
- b. Decreased Dopamine
- c. Increased Growth hormone
- d. Increased estrogen: androgen ratio
- e. Increased Prolactin



ANSWER KEYS

1. HYPOPARATHYROIDISM

1.C 2.C

2. DIABETES INSPIDUS

1.D 2.D

3. DIABETES MELLITUS

1.E	2.D	3.D	4.E	5.D
6.C	7.E	8.A	9.E	10.C
11.C	12.E	13.A	14.D	

4. HYPERTHYROIDISM

1.D 2.E 3.C

5. ADDISON'S DX

1.D 2.D 3.E

6. THYROID NEOPLASM

1.D	2.D	3.D	4.D
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7. PANCREATIC NEOENDOCRINE TUMOURS

1.C 2.C 3.D

8. CONN SYNDROME

1.E 2.E 3.A

9. HYPOTHYROIDISM

1.A 2.A 3.D

10. ACROMEGALY

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

11. CUSHING SYNDROME

1.C 2.A 3.E 4.A

12. OBESITY

1.A 2.D 3.C

13. HYPOGLYCEMIA

1.C 2.C 3.C

14. MIX

1.C	2.C	3.A	4.E	5.E
6.C	7.E	8.C	9.E	10.A
11.D	12.D	13.D	14.D	15.A
16.D	17.D	18.C	19.E	20.C
21.E	22.E	23.E	24.A	25.C
26.E	27.D	28.E	29.B	---

GI MEDICINE

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1. DYSPHAGIA/GERD

1. A 50 years old woman presented with history of Worsening dysphagia over many years. Recently, three had been episodes of ill-defined central chest discomfort and Nocturnal cough. What is the most Likely diagnosis?

- a. Achalasia
- b. Barretts esophagus
- c. Motor neuron disease
- d. Oesophageal Carcinoma
- e. Pharyngeal pouch

2. A 57 years old man has severe heartburn and Nocturnal cough. Simple measures for the treatment of gastroesophageal Reflex disease Fail to alter the patient symptoms. Which of the following is not among acceptable measures for the further treatment of the patient?

- a. H receptor blocking agents
- b. Parasympathomimetic Agents
- c. Anticholinergic agents
- d. Alginic acid antacid agents
- e. Anti reflux surgery

3. 37 years old woman presents with complaints of severe heartburn with or without meals. She has a history of hypertension which has been treated with Captopril. She also has a history of Raynaud's disease Multiple facial telangiectasias and very taut skin on the dorsum of both hands. She has failed to obtain relief for her heartburn with large doses of antacids, ranitidine, or omeprazole. Esophageal manometry is ordered. So the following would be the most likely results of this test?

- a. Decreased esophageal Peristalsis and decreased LES pressure
- b. Decreased esophageal Peristalsis and increased LES pressure
- c. Increased esophageal peristalsis and decreased LES pressure
- d. Increased esophageal peristalsis and increased LES pressure
- e. Normal esophageal peristalsis and normal LES pressure

4. A 36 years man has been diagnosed with chronic hepatitis C. All the possible treatment options for him except.

- a. Interferon alpha plus ribavarin
- b. Pegylated interferon plus ribavarin
- c. Sofobuvir plus interferon and ribavarin
- d. lamuvidine

5. HCV positive chaotic patient presented with variceal upper gastrointestinal bleed. Which of the following is the treatment of choice for prevention of future variceal bleeds?

- a. Propranolol
- b. Interferon
- c. Frusemide
- d. Omeprazole
- e. Terlipressin

6. At 25 years old, Lady presented with jaundice itching vitiligo and secondary amenorrhea. Her viral serology is normal? What is the most likely diagnosis?

- a. Autoimmune hepatitis
- b. Wilson disease
- c. Hemochromatosis
- d. Gilbert Syndrome
- e. Alpha-1 Antitrypsin deficiency

7. A chronic alcoholic with anemia, deranged liver functions, Test pain right hypochondrium and nausea, Vomiting for weeks with AST: ALT 2. Which is the diagnosis?

- a. Food poisoning
- b. Alcoholic hepatitis
- c. Gastritis
- d. Duodenal ulcer
- e. Dyspepsia

8. An anxious 31 years old woman complains of a history of chronic diarrhea alternating with Constipation. She often feels bloated. Investigations are normal. What is the most likely diagnosis?

- a. Inflammatory bowel disease
- b. Lactose intolerance
- c. Celiac Disease
- d. irritable bowel syndrome
- e. Laxative abuse

9. A 45 years old man complains of "heartburn" and burning epigastric pain, relieved by antacids and triggered by eating spicy or acidic foods or by assuming a recumbent position. The patient smokes two packs of cigarettes a day and consumes several alcoholic drinks each evening. Which of the following is the usual cause of this patient's condition?

- a. Columnar intestinal metaplasia of esophageal squamous epithelium
- b. Excessive acid production in the stomach
- c. Excessive nonsteroidal anti-inflammatory drug use

- d. Helicobacter-pylori infection
- e. Hiatal hernia and incompetent lower esophageal sphincter

10. A 42 years old woman has had dysphagia of all liquids and solids for 3 months. She has regular central chest pain and regurgitates undigested food on most occasions but does not suffer from acid reflux. She has lost his weight over 6 months. Which is the single most likely diagnosis?

- a. Achalasia
- b. Benign oesophageal stricture
- c. Bulbar palsy
- d. Diffuse oesophageal spasm
- e. Pharyngeal pouch

2. UGIB(UPPER GI BLEEDING)

1. Patient with history of hematemesis, he clinical features which suggest to the Peptic ulcer Is the underlying cause is

- a. Ascites
- b. Drowsiness
- c. History of jaundice
- d. Tender Epigastrium
- e. Splenomegaly

2. Of 50 years diagnosed PT of cirrhosis present with hematemesis. What is the most effective drug to control bleeding?

- a. I.v Vitamin K
- b. Terlipressin
- c. Tranxaemic acid
- d. I.V haemacil
- e. I.V dopamine

3. A 17 year old girl presented with nausea, vomiting and jaundice. Heart Lefts demonstrates bilirubin 100 MG SGPT 1000IU And alkaline phosphate 150, with the normal abdominal. Ultrasound. What is most probable diagnosis?

- a. Chronic hepatitis
- b. Acute hepatitis
- c. Hemolytic anemia
- d. Pancreatitis
- e. Cholecystitis

4. A 40 years old multiparous obese lady presented with jaundice and itching, having obstructive pattern liver enzymes with negative ANA and Viral serology. Which of the following is most likely caused in this lady?

- a. Alcohol
- b. Periapillary carcinoma
- c. Hookworm infestation
- d. Gall stones
- e. Cholangiocarcinoma

5. A 40 year old woman develops nausea and vomiting without abdominal pain. After several bouts of retching, she vomits bright red blood. Physical examination is normal without spider angiomas or s What is the diagnosis?

- a. Gastric ulcer
- b. Aortoenteric fistula
- c. Mallory-Weiss tear
- d. Esophageal varices
- e. Hereditary hemorrhagic telangiectasia

3. LGIB

1. My 60 years old man presented with dysphagia and progressive pallor and weight loss. Which of the following is the investigation of choice of diagnosis?

- a. CD Scan chest
- b. Barium swallow
- c. Peripheral smear
- d. Upper GI endoscopy and biopsy
- e. Ultrasound

4. INVESTIGATIONS OF LIVER DISEASES

1. Which of the following is not a contraindication to perform a Percutaneous Liver b Biopsy?

- a. INR 2.6
- b. Viral hepatitis
- c. Hydrated cyst
- d. Hemangioma
- e. None the above

2. A 63 years old man has history of weight loss and become increasingly jaundiced over the last four weeks. He has no abdominal discomfort but his urine has become very dark and his stools pale in colour. He drinks 15 units of alcohol per week. An

ultrasound scan of the liver shows a dilated common bile duct. Which single label function test results would confirm the most likely diagnosis?

- a. Bilirubin 30micro mol/ L, ALP 240IU/L, AST 30IU/1, GGT 55IU/1
- b. Bilirubin 35micro mol/ L, ALP 30IU/L, AST 28IU/1, GGT 35IU/1
- c. Billrubin 55micro mol/ L, ALP 601IU/L, AST 60IU/1, GGT 415IU/1
- d. Bilirubin 58micro mol/ L, ALP 210IU/L, AST 205IU/1, GGT 145IU/1
- e. Bilirubin 120micro mol/ L, ALP 130IU/L, AST 1020U/1, GGT 630U/1

3. A 30 years old man alcoholic presented with sudden onset epigastric pain and vomiting. His SGPT is 120/IU and serum lipase is very high. Ultrasound demonstrate hepatomegaly. What is probable diagnosis?

- a. Acute hepatitis
- b. Peptic ulcer disease
- c. Acute pancreatitis
- d. Myocardial infarction
- e. Garoo-esophageal reflex disease

4. At 30 years old, Man is Anxious and requests for hepatitis B screening in OPD. Which of the following is most suitable test?

- a. HBV DNA quantitative PCR
- b. HBV DNA qualitative PCR
- c. HBs AG
- d. Anti- HBs AG
- e. Anti-HBc

5. At 20 years old, student referred from school for evaluation of. Recurrent jaundice since childhood. He's apparently healthy. His bilirubin is equal to 2.9. SGPT is equal to 30. His viral and A and a profile is negative and has normal serum ceruloplasmin, What is the most likely diagnosis?

- a. Acute hepatitis
- b. Gilbert Syndrome
- c. Crigler Najjar syndrome
- d. Wilson disease
- e. Sclerosing cholangitis

5. ACUTE HEPATITIS / ACUTE LIVER FAILURE

1. A 32 years old woman seeking to become pregnant visits her physician for a pre-pregnancy examination routine prenatal laboratory testing demonstrate the following profile; HBsAG (-), anti-HBsAG (+), anti-HBsAG (-) and HBV DNA (-). Which of the following likely represents the status of the patient?

- Hepatitis B carrier
- Immunized against hepatitis B
- Infected and within the window period
- Infected with hepatitis B and Highly transmissible
- Recently infected with hepatitis B

2. A 55 years old obese man with a history of Hypertension, Diabetes and hypertriglyceridemia Reports intermittent mild right upper quadrant discomfort. He has elevated AST and ALT Tests to two to three times Normal His abdominal ultrasound shows a normal calculator without stones and generalized hyperechogenic Of the liver. Which of the following is the most likely diagnosis?

- Pancreatic Carcinoma
- Acute viral hepatitis
- Regular natural syndrome
- Nonalcoholic fatty liver disease
- Gilbert Syndrome

3. A 39 year old man is admitted to hospital with Decompensated liver disease of unknown etiology. As parent livers agree in the following results are obtained.

ANTI-HBS positive

ANTI-HBC Negative

HBS antigen negative

What is the Mans habitus be status?

- Chronic hepatitis B, Highly infectious
- Previous Immunization to hepatitis B
- Probable hepatitis D infection
- Acute hepatitis B infection
- Chronic hepatitis B Not infectious

4. Off 52 years old woman is diagnosed with nonalcoholic Steatohepatitis following a liver biopsy. What is the most important step to help prevent the progression of heart disease?

- Stop smoking
- Start statin therapy
- Eat more omega-3 fatty acids
- Start Sulfonylurea Therapy
- Weight loss

5. A 34 year old woman with end stage renal failure on regular hemodialysis has developed jaundice. She's deceived multiple transfusions during the past six months. Investigation showed; Hemoglobin 11.2hm/dl, bilirubin 8mg/dl, ALT 2250 iu/1 and Alkaline phosphatase 83 iu/1. Ultrasound shows gallstones and small Echogenic kidneys. the most likely diagnosis is:

- Acute hepatitis B
- Haemolytic Jaundice
- Autoimmune hepatitis
- Drug induced jaundice
- Obstructive jaundice

6. A medical student has just completed hepatitis B vaccination. He has no prior exposure to hepatitis B. On reviewing his about trip that's you would expect his to be.

- HBS Ag positive
- Anti HBS positive
- Anti HBScore positive
- Both anti SBS and anti HBcore positive
- Anti HBe positive

7. What is the Important physical sign of portal hypertension in a patient of cirrhosis Of liver?

- Gynecomastia
- Hepatomegaly
- Palmer erythema
- Spider angioma
- Spleno megaly

8. In a patient with a high grade fever, rigors and tender hepatomegaly. Which is the most likely diagnosis?

- a. Carcinoma of liver
- b. Liver abscess
- c. Malaria
- d. Right heart failure
- e. Typhoid fever

9. A 15 year old boy has been diagnosed with ascaris lumbricoides infestation. All are true lumbricoides except,

- a. Can cause anemia
- b. Can cause obstructive jaundice
- c. Can cause intestinal obstruction
- d. Abdominal pain
- e. Can cause ureteric obstruction

10. Which one of the following statements regarding clinical manifestation in Wilson disease is false?

- a. KF ring is present in 10%.
- b. Patients with the neurological manifestation will almost invariably have KF ring
- c. KFC ring is difficult to diagnose without a slit lamp
- d. Sunflower cataracts are copper deposition in the lens
- e. Upward dislocation of lens is a hallmark of diagnosis

11. A 40 year old former presented with the right upper quadrant discomfort in abdomen. Ultrasound revealed liver cyst. Hemagglutinations test is positive. Which of the following is the treatment of choice?

- a. Diclofenac acid
- b. Albendazole
- c. Omeprazole
- d. Ceftriaxone
- e. Metronidazole

12. Of 40 years old, male with long standing history of peptic ulcer disease. Presented with persistent projectile vomiting. Which of the following is the most likely cause for his presentation?

- a. Acute cholecystitis
- b. Acute gastroenteritis

- c. Reflex esophagitis
- d. Gastric outlet obstruction
- e. Mallory Weiss syndrome

13. A 60 year old man with osteoarthritis On treatment from the rheumatologist Developed Abdominal discomfort and Black tarry stools. Which of the following is the most likely cause for his presentation?

- a. Carcinoma rectum
- b. Cholecystitis
- c. Esophagitis
- d. Appendicitis
- e. Peptic ulcer disease

14. At 20 years old, student presented to A and E in afternoon with severe vomiting and loose motions. He has breakfast in local restaurant. Which of the following is the most likely causative Organism?

- a. E. coli
- b. Staphylococcus aureus
- c. Enterobius wormicularis
- d. Pseudomonas

15. A 35 years old non alcoholic diabetic was referred for evaluation of diseased liver functions tests. He's having normal viral profile with serum ferritin of 45,000. What is the most likely diagnosis?

- a. Wilson disease
- b. Autoimmune hepatitis
- c. Hemochromatosis
- d. Primary biliary cirrhosis
- e. Sclerosing cholangitis

16. At 35 years old, teacher presented to OP D with deranged lefts. He has recently received medications for sore throat. Which of the following medications is most likely cause for his deranged LEFTs?

- a. Co-amoxiclav
- b. Paracetamol
- c. Gentamicin
- d. Anti-HBSAg
- e. Anti-HBc

17. Beach Disease best explained the following LEFTs patterns. Bilirubin is equal to 30. SGPT 90. AST 350 with raised gamma GT. What is the most likely diagnosis?

- a. Hemolytic anemia
- b. Acute viral hepatitis
- c. Alcoholic hepatitis
- d. Autoimmune hepatitis

18. At 12 years old, girl develops nausea, vomiting, and severe epigastric pain. Workup shows deranged liver functions test with yellow sclera, ALT1500 u/l. What is your diagnosis?

- a. Liver Abscess
- b. Acute hepatitis
- c. Gastritis
- d. Ischemic heart disease
- e. Acute appendicitis

19. A 42 years old woman has had difficulty in swallowing for the last 18 months. From the beginning, she has been struggling to tolerate both solids and fluids. So often regurgitates Her oral intake and has lost over 5 KG. She is a known smoker and has no other medical problems. Which single investigation is most likely to support that diagnosis?

- a. Abdominal X-ray
- b. Barium swallow
- c. Chest X-ray
- d. CT test
- e. CT Abdomens

20. A 42 years old woman has had dysphagia of all liquids and solids for three months. She has regular central chest pain and regular Undigested food on most occasions, but does not suffer from acid reflux. She has lost her weight over six months. Which is the following Most likely diagnosis?

- a. Asia
- b. Benign esophageal structure
- c. Diffuse esophageal spasms
- d. Bulbar palry
- e. Pharyngeal pouch

21. A 40 years old woman develops nausea and vomiting without abdominal pain. After several bouts All for retching. She vomits bright red blood. Physical examination is normal without spider angiomas. What is diagnosis?

- a. Gastric Ulcer
- b. Aortenteric fistula
- c. Mallory weiss tear
- d. Esophageal varices
- e. Hereditary hemorrhagic telangiectasia

22. Which of the following statements regarding the hep- atitis delta virus is INCORRECT?

- a. It is a defective RNA virus
- b. It has been implicated as a common cause of fulminant hepatitis
- c. Anti-delta IgG present in the serum confers immunity to the virus
- d. Delta viral hepatitis occurs only in association with acute or chronic B viral hepatitis
- e. In North America, intravenous drug addicts are the group at highest risk for delta infection

23. A 40-year-old woman with known alcoholic cirrhosis of the liver is admitted to the hospital because of increasing abdominal girth, fever, and diffuse, vague abdominal dis- comfort. Physical examination reveals a febrile (101.5F) woman with scleral icterus. Abdominal examination shows an enlarged, tender liver (14 e active bowel sounds, distention, and a positive fluid wave, but there is no rebound tenderness or guarding. Paracentesis shows white blood cell count of 535 mm³ (76% neutrophils) with a negative Gram's stain. Seru creatinine is 1.9 mg/dl; total bilirubin is 2.4 mg/dl. Other laboratory results are within normal limits. Which of the following is true about this patient's condition?

a. Despite empiric treatment with a third-generation cephalosporin, the risk of mortality in this patien exceeds 60%

- b. If nontoxic blood levels of aminoglycoside are maintained, the risk of this patient's developing renal failure is low (less than 10%)
- c. As aminoglycosides diffuse well into the peritoneum, therapeutic levels are easily achieved; serum levels need not be followed
- d. Most organisms cultured with spontaneous bacterial peritonitis are sensitive to chloramphenicol and it is an acceptable initial therapeutic agent
- e. This patient should not be treated with empiric antibiotics

24. Six years man presented with the Hepatic encephalopathy. All are possible. Precipitating that was for him except?

- a. Constipation
- b. Treatment with Neomycin
- c. Over diuresis
- d. Hematemesis
- e. High protein diet

6. PAIN ABDOMEN

1. A 83 years old woman presents with one year history of progressively severe crampy abdominal pain after eating. She has started avoiding food because of the pain. The pain is often associated with bloating nausea and occasional diarrhea. Shae had a 15kg loss over the past one year. Her other medical problem include hypertension diabetes mellitus type 2, hypercholesterolemia, peripheral vascular, coronary artery disease and myocardial infection. Social history is not significant. Abdomen is soft, nontender and non distended. Abdominal x-ray and CT scan are unremarkable. which of the following is the most likely diagnosis?

- a. Chronic pancreatitis
- b. Mesenteric ischemia
- c. Cholangitis
- d. Irritable bowel syndrome
- e. Celiac disease

2. A 30 years old man with paroxysmal Hemoglobinuria. Presented with the sudden onset,

abdominal and distension. Address and demonstrates size and enlarged prostate lobe of liver. Which is most probable diagnosis?

- a. Cirrhosis
- b. Budd chiari syndrome
- c. Spontaneous bacterial peritonitis
- d. Cholecystitis
- e. Acute Hepatitis

3. 70 years old, presented with the dysphagia. How to peripheral smear demonstrates iron deficiency anemia. Upper GI endoscopy shows bouncing in esophagus. What is most probable diagnosis?

- a. Plummer Vinson syndrome
- b. Cirrhosis
- c. Achalasia
- d. Systemic sclerosis
- e. Esophageal candidiasis

4. At 25 years old, man presented with sign and symptoms of decompensated liver disease and upper GI blood. His management includes all except?

- a. Lactulose
- b. Vitamin K
- c. Blood transfusion
- d. Loperamide
- e. Tans jugular Intrahepatic Porto systematic shunt

5. A cirrhotic patient has been successfully treated for spontaneous bacterial peritonitis. Which of the following is the treatment of choice for prevention of next episode?

- a. Ciprofloxacin
- b. Ceftriaxone
- c. Doxycycline
- d. Omeprazole
- e. Fluconazole

6. A pregnant lady with acute hepatitis E is particularly liable. To which of the following?

- a. Cirrhosis
- b. Gall stones
- c. Chronic hepatitis
- d. Fulminant hepatic failure
- e. Peptic ulcer disease

7. A 35 years old patient of chronic hepatitis C on treatment presented with pancytopenia. Which of the following is the most likely responsible medication for his pancytopenia?

- a. Vitamin- E
- b. Pegylated interferon
- c. Sofosbuvir
- d. Entecavir
- e. Daclatasvir

7. OBSTRUCTIVE JAUNDICE / HYPERBILINEMIA

1. A 33 years old women has a medical assessment prior to a new job. She has been well apart from some mild coryzal symptoms the previous week. Bilirubin 42µmol/L, AST 28 IU/L, GGT 30 IU/L. Urine disputable no bilirubin detected. Which is single most likely explanation for these results.

- a. Crigler-Najar syndrome
- b. Epstein Barr virus
- c. Gilberts syndrome
- d. Hepatitis B virus infection
- e. Rotor syndrome

2. A 20 year old woman presents to her primary care physician with fever, malaise, and yellow eyes. In addition to clear scleritis, physical examination reveals a mildly enlarged liver with tenderness to palpation. Laboratory studies demonstrate a markedly increase aspartate aminotransferase and alanine aminotransferase and increased IgM and anti-hepatitis A titers. Which of the following is the most likely result of this infection?

- a. Cirrhosis
- b. Complete resolution
- c. Establishment of a chronic carrier state
- d. Fulminant hepatitis
- e. Hepatocellular carcinoma

3. Patient develops mild jaundice while being treated for a urinary tract infection negative. Serum Bilirubin is 3mg/dl, Mostly unconjugated, Hemoglobin is 7g/dl. Which of the following most likely diagnosis?

- a. Hemolysis secondary to G6PD deficiency
- b. Acute viral Hepatitis
- c. Giggler Nager Syndrome
- e. Nonalcoholic fatty liver disease
- d. Gilbert Syndrome

4. A previously healthy 43 years old lady presented with one week history of fever and rigors. Her investigations showed, Hemoglobin 13.4mg/dl, WBC 23000 And 92% Neutrophils, bilirubin 4.2mg/dl, ALT 73iu/l and alkaline phosphate 520iu/l. Ultrasound showed multiple gall stone and dilated common bile duct. The likely cause is:

- a. Cholangitis from CBD Stone
- b. Falciparum malaria
- c. Carcinoma head of pancreas
- d. Primary biliary cirrhosis
- e. Viral hepatitis

5. A 25 years old beggar having iron deficiency anemia presented with dysphagia barium study reveals rings in upper pharynx. Which is the most likely diagnosis?

- a. Achalasia
- b. Anderson syndrome
- c. Barret esophagus
- d. Plummer Vinson syndrome
- e. Ascaris lumbricoides

6. A middle-aged lady who is a diagnosed case of Colic Lithiasis. Develops severe Deep seated epigastric pain with no relief on PPI. Liver function tests are slightly deranged. Other tests are normal. What is the diagnosis?

- a. Acute hepatitis
- b. Bacterial ulcer disease
- c. Acute pancreatitis
- d. Pneumonia
- e. Intestinal colic

7. A middle-aged lady having a deranged liver function test of more than six months with negative B&C serology and raised serum globulins and positive ANA. What is diagnosis?

- Chronic hepatitis C
- Wilson's disease
- Hemochromatosis
- Autoimmune hepatitis
- None of the above

8. A 63-year-old chronic alcoholic presents with weight loss, anorexia, and abdominal pain radiating to the back. Physical examination indicates a palpably enlarged gallbladder, and laboratory studies demonstrate conjugated hyperbilirubinemia. Computed tomography demonstrates a mass in the head of the pancreas. Which of the following is associated with the diagnosis of pancreatic adenocarcinoma?

- Asterix
- Gallstone ileus
- Murphy sign
- Trousseau sign
- Whipple triad

9. A 33 years old woman has a medical assessment prior to a new job. She has been well apart from some mild coryzal symptoms the previous week. Bilirubin 42 $\mu\text{mol/L}$, ALP 60 IU/L, AST 28 IU/L, GGT 30 IU/L Urine dipstick: no bilirubin detected. Which is the single most likely explanation for these results?

- Crigler-Najar syndrome
- Epstein-Barr virus
- Gilbert's syndrome
- Hepatitis B virus infection
- Rotor syndrome

8. IBD

1. A 27 years old woman presents with abdominal pain, diarrhea and a 4.5 pounds (2kg) weight loss for the two months. She describes the abdominal pain as intermittent, moderate to severe and located in

the right quadrants over the past 48 hours the pain has intensified. Her temperature is 99.6 F, BP is 120/70 mmHg, is 100/min and respiration are 14/min, Several shallow ulcers are present in her mouth. Abdominal examination shows tenderness in the right lower quadrant without rebound. Examination shows mucus. Rectosigmoidoscopy is unremarkable. An x-ray film of the abdomen shows gas in the small and large labs shows

HB; 102.g/dl

WBC 16500/cm

Platelet count 530000/cm

ESR 48/hr

Which of the following is the most likely diagnosis.

- Diverticulitis
- Celiac disease
- Irritable bowel syndrome
- Crohn's disease
- Ulcerative colitis

2. A 30 year old female referred from Infertility clinic with history of chronic diarrhea. On examination, she is pale with stomatitis, Oral ulcers. jejunal biopsy revealed villous atrophy.

What is the probable diagnosis?

- Crohn's disease
- Ulcerative disease
- Whipple's disease
- Intestinal tuberculosis
- Celiac disease

3. At 35 years old, man presented with the lowest motion with blood for last three months associated with backache. She is having necrotic on right shin and hepatomegaly. What is the most likely diagnosis?

- Giardiasis
- Celiac disease
- Ulcerative disease
- Crohn's disease
- Pseudomembranous colitis

4. A 15 year old girl presents with chronic diarrhea. Which of the following features suggests that she has irritable bowel syndrome?

- a. Anaemia
- b. Abdominal pain relieved by defecation
- c. Blood in stools
- d. Nocturnal symptoms
- e. Weight loss

5) An anxious 31 year old woman complains of a history of chronic diarrhea alternating with constipation. She often feels bloated. Investigations are normal. What is the most likely diagnosis?

- a. Inflammatory bowel disease
- b. Lactose intolerance
- c. Celiac disease
- d. Irritable bowel syndrome
- e. Laxative abuse

9. PEPTIC ULCER DIS (PUD)

1. At 35 years old, man with chronic dyspepsia found to have gastritis and positive *Helicobacter pylori*. Which of the following is the best regimen to eradicate *Helicobacter* in this patient?

- a. Omeprazole, clarithromycin, neomycin
- b. Rifampicin, omeprazole, metronidazole
- c. Clarithromycin, omeprazole, amoxicillin
- d. Sucralfate, omeprazole, doxycycline
- e. Esomeprazole, metronidazole, itopride

2. A 40 years old lady with gallstones developed severe abdominal pain, radiating to back and relieving on bending forward. Which is the most likely diagnosis?

- a. Chronic cholecystitis
- b. Acute pancreatitis
- c. Budd chiari syndrome
- d. Acute appendicitis
- e. Acute esophagitis

85. The pain typically awakens him at night 2-3 hours after going to bed. On endoscopic examination he is found 85. A 25-year-old male graduate student complains of severe epigastric abdominal pain that is relieved by food have a 1-ern

duodenal ulcer. Which of the following diets would you recommend?

- a. Six small meals per day
- b. Three regular meals per day plus a bedtime snack
- c. Three regular meals per day without a bedtime snack
- d. Low roughage, bland diet
- e. Low roughage, bland diet supplemented with milk and cream

3. A 44-year-old man who has drunk 6 ounces of whiskey daily for many years is evaluated for intermittent episodes of epigastric pain relieved by antacids. During an attack, moderate epigastric tenderness is present. Laboratory tests show:

Hematocrit 46%

White blood cell count 10,000/mm³

Serum creatinine 1.2 mg/dl

Serum amylase 500 IU/L (normal <110)

Urinary creatinine 120 mg/dl

Urinary amylase 50 IU/L

Examination of the stool for occult blood is positive (2+). Upper gastrointestinal series shows duodenal deformity. The most likely diagnosis is

- a. acute pancreatitis with secondary spasm of duodenal bulb
- b. coexistent acute pancreatitis and peptic ulcer disease
- c. peptic ulcer disease and macroamylasemia
- d. peptic ulcer disease with posterior penetration into the pancreas
- e. alcoholic hepatitis

10. PANCREATIC CARCINOMA / PANCREATIS

1. Upper 56 years old woman is referred to you for evaluation of possible cancer of the pancreas suspected on the basis of epigastric pain radiating to the back associated with an 8 pound weight loss. Physical examination and routine blood tests, including serum amylase are normal. The next appropriate diagnosis does to detect pancreatic cancer is.

- a. Urine amylase

- b. Upper gastrointestinal series
- c. Ultrasonography or computerized tomography of the pancreas
- d. Radio isotropic pancreatic scan.
- e. Visceral angiography

2. A 57-year-old man has severe heartburn and nocturnal cough. Simple measures for the treatment of gastroesophageal reflux disease (liquid antacids, elevation of the head of the bed, nothing by mouth prior to bedtime) fail to alter the patient's symptoms. Which of the following is NOT among acceptable measures for further treatment of this patient?

- a. H₂-receptor blocking agents
- b. Parasympathomimetic agents
- c. Anticholinergic agents
- d. Alginic acid-antacid agents
- e. Antireflux surgery

3. A 74 years old man has had a retrosternal pain and bloating for 6 weeks. He has had no loss of appetite or weight loss. He has recently been started on some new medication and feels that this may be cause of his symptoms. Which is the single most likely cause of his symptoms?

- a. Alendronate
- b. Bisoprolol
- c. Codeine phosphate
- d. Digoxin
- e. Quinine sulphate

4. In alcohol-induced acute pancreatitis, which of the following conditions does NOT indicate severe disease?

- a. Blood glucose level greater than 200 mg/dl
- b. Fluid sequestration greater than 6 liters
- c. Hematocrit drop of more than 10 percentage points
- d. Serum calcium level greater than 11.5 mg/dl
- e. Arterial PO₂ less than 60 mm Hg

5. A 45 years old woman with long-standing rheumatoid arthritis complains of dry eyes and dry mouth. Bilateral enlargement of the parotids is noted on physical examination. The syndrome described here is described as

- a. Autoimmune
- b. Infectious
- c. metabolic
- d. metastatic
- e. primary neoplastic

6. A 20 years old man presents with severe right lower quadrant abdominal pain, nausea and anorexia. He states that the abdominal pain started around his umbilicus and has now migrated to the right lower quadrant of his abdomen. Physical examination reveals exquisite tenderness at McBurney's point. This patient is diagnosed with acute appendicitis. Which of the following is the treatment for this condition?

- a. Antibiotics only, because the appendix is crucial for survival
- b. Symptomatic treatment only, because the appendix is crucial for survival
- c. Surgical resection of the appendix, because appendicitis can lead to appendiceal cancer
- d. Surgical resection of the appendix, because appendicitis can lead to perforation or abscess
- e. "Watch-and-wait" approach over days to see if inflammation subsides

11. MIX

1) A 12 years old girl comes to the physician for chronic weight loss and fatigue. She has a history of belly floating, fouling, foul smelling stools, flatulence and meteorism. She also has pain and easy bruising. Studies show with serum iron 25mg/dl and serum total iron binding capacity 60 mg/dl (normal 300-360 mg/dl). PT is 16 sec. Physical examination shows loss of subcutaneous fat, paler hyperkeratosis and abdominal distention, bowel sounds are increased. Which of the following is most associated with this condition?

- a. Anti endomysial antibodies
- b. Anti scl 70 antibodies
- c. Antinuclear antibodies
- d. Anticentromere antibodies
- e. Antimitochondrial antibodies

2) A 49 Years old woman present with a two week history of lower abdominal pain and severe diarrhea are watery without blood or mucus. The abdominal pain is mild and unrelated to her stools. She has a three years ago. Her temperature is 97.8F, blood pressure is 106/68 mmHg, pulse is 103/min and respiration 20/min. oxygen saturation is 99% on room air, physical examination shows facial flushing a prominent venous pulse and exploratory wheezes. Which of the following is the most likely diagnosis?

- a. Diverticulitis
- b. Infectious gastroenteritis
- c. Inflammatory bowel disease
- d. Carcinoid syndrome
- e. Irritable bowel syndrome

3) A 74 years old man has had a retrosternal pain and bloating for 8 weeks. He has had no loss of appetite or weight loss. He has recently been started on some new medication and feels that this may be the cause of his symptoms. Which is the single most likely cause of his system.

- a. Alendronate
- b. Bisoprolol
- c. Codeine phosphate
- d. Digoxin
- e. Quinine sulphate

4. What are the most common type of antibodies seen in Pernicious anemia?

- a. Vitamin B12 receptor antibodies
- b. Gastric parietal cell Antibodies
- c. Jejunal mucosa Antibodies
- d. Intrinsic factor antibodies
- e. Vitamin B12 antibodies

5. At 12 years old, boy presented with behavioral problem at school and home. Examination reveals splenomegaly, Course tremors of hands and slurring of speech. Investigation shows comes negative hemolytic Anemia. What is the most likely diagnosis?

- a. Multiple system atrophy
- b. Huntington Chorea
- c. Hyperthyroidism
- d. Wilson disease
- e. MC ardle disease

6. A four year old lady presented with history of severe, constant upper abdominal pain that doesn't And it's associated with vomiting. Only examination temperature is normal and there is marked tenderness In Epigastrium. What is the most useful investigation for this patient?

- a. Cardiac enzymes
- b. Electrocardiography
- c. Gastroscopy
- d. Liver function tests
- e. Serum amylase

7. Which one of the following statements regarding non alcoholic fatty liver disease is false?

- a. Weight loss improves his mainstay of treatment
- b. Liver biopsy should be considered in patients with diabetes or age 45 years
- c. Predispose to insulin resistance
- d. Cirrhosis is present in all patients
- e. Metformin is used for treatment

8. I think 7 years old man was admitted with anasarca, hematuria and gross proteinuria. Later, he grabbed his severe dull ache in right flank. One deviation He has tenderness in the abdomen Especially right Hypochondrium. What is the most likely cause of this recent Presentation?

- a. Acute hepatitis
- b. Acute cholecystitis
- c. Peritonitis
- d. Hepatic vein thrombosis
- e. Peptic ulcer disease

9. At 26 Years old Air Hostess using contraceptive pills presented with severe abdominal pain and distension. Ultrasound revealed enlarged caudate lobe of liver and moderate ascites. Which is the most likely diagnosis?

- a. Acute hepatitis
- b. Duodenal perforation
- c. Cirrhosis liver
- d. Acute cholecystitis
- e. Budd Chiari syndrome

80. Which of the following is NOT a feature of the Zollinger-Ellison syndrome?

- a. Secretory diarrhea
- b. Fat malabsorption
- c. Vitamin B₁₂ malabsorption
- d. Antral G-cell hyperplasia
- e. Large gastric folds

10. A 26-year-old homosexual male has loose stools, abdominal cramps, flatulence, and malaise of several weeks duration. Twenty-four hours ago, the patient developed bloody diarrhea, tenesmus, and low-grade fever (101°F). Physical examination is normal except for trace guaiac-positive stool on digital rectal examination. Examination of next a fresh stool specimen reveals motile trophozoites with ingested red blood cells. What is the most appropriate step in the management of this patient?

- a. Immediate indirect hemagglutination testing to establish the diagnosis of invasive amebiasis
- b. Immediate flexible sigmoidoscopy and biopsy to establish the diagnosis of invasive amebiasis
- c. Air-contrast barium enema to rule out a mass lesion (ameboma), as this may prompt early surgical intervention
- d. Immediate treatment with metronidazole, 750 mg three times daily for 5-10 days, plus diloxanide furoate, 500 mg 3 times daily for 10 days
- e. treatment of this patient's asymptomatic sexual partner with diloxanide furoate, 500 mg three daily for 10 days

11. At 12 years old, girl comes to the physician for chronic weight loss and fatigue. She has a history of bulky, floating, foul smelling stools, Flatulence and Meteorism. She also has bone pain and easy bruising. Laboratory studies shows anemia with serum iron 25mg/dl, Ferritin 25mg/dl And serum total iron binding capacity 600mg/dl. PT is 60 sec. physical examination shows loss of subcutaneous fat, pallor, hyperkeratosis and abdominal distension. Bowel sounds are increased. Which of the following is most likely associated with this patient condition?

- a. Anti endomysial antibodies
- b. And they scl 70 antibodies
- c. Anti nuclear antibodies
- d. Anti centromere antibodies
- e. Antimitochondrial antibodies

12. A 49 year old woman presents with a two week history of lower abdominal pain and severe diarrhea. The stools are watery without blood or mucus. The dominant pain is mild and unrelated to her stools. She has no history of fever or travel. She does not smoke or drink alcohol. Her past surgical history includes A fracture repair of her leg three years ago. Her temperature is 97.8 F, B is 106 by 68mm HG, Pulse is 103/min and respiration are 20 min, Oxygen saturation is 99% on room air. Physical examination wheezes. Which of the following is the most likely diagnosis?

- a. Diverticulitis
- b. Infectious Gastroenteritis
- c. Inflammatory bowel disease
- d. Carcinoid syndrome
- e. Irritable bowel syndrome

13. A 39 year old man is admitted to hospital with decompensated liver disease of unknown a etiology as part riverside green the following results are obtained.

ANTI HBS POSITIVE
ANTI HBC NEGATIVE
HBS Antigen NEGATIVE

What is the mans hepatitis B status?

- a. Chronic Hepatitis B highly infectious
- b. Previous immunization to hepatitis B
- c. Probable hepatitis D infection
- d. Acute hepatitis B infection
- e. Chronic hepatitis B Not infectious

14. A 52 years old woman is diagnosed with non alcoholic Steatohypothesis Following a liver biopsy.

What is the most likely important step to help prevent the progression of heart disease?

- a. Stop smoking
- b. Start statin therapy
- c. eat more omega 3 fatty acids
- d. Start Sulfonylurea therapy
- e. Weight loss

15. A 56-year-old woman is referred to you for evaluation of possible cancer of the pancreas, suspected o the basis of epigastric pain radiating to the back associated with an 8-pound weight loss. Physical examination and routine blood tests, including serum amylase, are normal. The next appropriate diagnostic test to detect pancreatic cancer is

- a. urine amylase
- b. upper gastrointestinal series
- c. ultrasonography or computerized tomography of the pancreas
- d. radioisotopic pancreatic scan with 75Se-selenomethionine
- e. visceral angiography

16. A 20-year-old woman presents to her primary care physician with fever, malaise, and "yellow eyes." addition to scleral icterus, physical examination reveals a mildly enlarged liver with tenderness to palpation. Laboratory studies demonstrate a markedly increased aspartate aminotransferase and alanine aminotransfera and increased IgM and anti- hepatitis A titers. Which of

the following is the most likely result of this infection

- a. Cirrhosis
- b. Complete resolution
- c. Establishment of a chronic carrier state
- d. Fulminant hepatitis
- e. Hepatocellular carcinoma

17. A 32 years old woman seeking to become pregnant visits her physician for a pre-pregnancy examination. Routine prenatal laboratory testing demonstrates the following profile; HBsAg (-), anti-HBsAg anti-HBcAg (-), anti-HBeAg (-) and HBV DNA (-). Which of the following likely represents the status of the patient?

- a. Hepatitis B carrier
- b. Immunized against hepatitis
- c. Infected and within the "window period"
- d. Infected with hepatitis +B and highly transmissible
- e. Recently infected with hepatitis B

ANSWER KEYS

1. DYSPHAGIA/GERD

1.A	2.C	3.A	4.A	5.
6.D	7.B	8.A	9.E	10.A

2. UPPER GI BLEEDING

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

1.E

4. INVESTIGATIONS OF LIVER DISEASE

1.B	2.C	3.E	4.C	5.A
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5. ACUTE HEPATITIS AND LIVER FAILURE

1.B	2.D	3.B	4.E	5.A
6.B	7.E	8.B	9.E	10.B
11.D	12.B	13.A	14.D	15.A
16.B	17.C	18.C	19.B	20.D
21.B	22.C	23.A	24.B	

6. PAIN ABDOMEN

1.B	2.C	3.E	4.B
5.D	6.B	7.E	

7. OBSTRUCTIVE JAUNDICE/HYPERBILINEMIA

1.C	2.B	3.A	4.A	5.D
6.B	7.C	8.D	9.C	

8. IBD

1.D	2.A	3.C	4.B	5.D
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9. PEPTIC ULCER DISEASE

1.	2.C	3.C	4.C
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10. PANCREATIC CARCINOMA/PANCREATITIS

1.C	2.C	3.	4.D	5.A	6.C
-----	-----	----	-----	-----	-----

11 MIX

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

METABOLIC & NUTRITIONAL DISORDERS

1. A 57 years old man is admitted to the hospital for treatment of chronic pancreatitis. In patients with chronic pancreatitis, deficiency of which of the following vitamins is most likely?

- a. Folic acid
- b. Vitamin B2 (riboflavin)
- c. Vitamin B6 (pyridoxine)
- d. Vitamin B12 (cobalamin)
- e. Vitamin D

2. A multiparous 60 year old woman having 'full parda' for religious reasons, presents with severe aches and pains, unable to stand from sitting position with numbness and tingling around mouth. Which of the following deficiency is the cause?

- a. Potassium b. Zinc c. Iron
- d. Vitamin D e. Vitamin B12

3. A 4 year old man living presents to a clinic with impaired memory, diarrhea and a rash on face, neck and dorsum of the hands. It is likely that this patient has a deficiency of which of the following nutrients?

- a. Ascorbic acid
- b. Folic acid
- c. Homocysteine
- d. Niacin
- e. Alpha Tocopherol (vitamin E)

4. A 37 year old woman has diarrhea. She also complains of painful tongue and recurrent mouth infections. On examination her tongue is red. She has chronic thickening, dryness and pigmentation of the skin in the sun exposed areas. Which of the following is the best option for treatment?

- a. Pyridoxine therapy b. Thiamine
- c. Riboflavin therapy d. Nicotinamide
- e. Ascorbic acid

5. A 14 year old man living presents to a clinic with impaired memory, diarrhea and a rash on the face, neck and dorsum of the hands. It is likely that this patient has a deficiency of which of the following nutrients?

- a. Ascorbic acid
- b. Folic acid
- c. Homocysteine
- d. Niacin
- e. Alpha Tocopherol (Vitamin E)

6. A 54 year old man living presents to a clinic with impaired memory, diarrhea and a rash on the face, neck & dorsum of the hands. It is likely that this patient has a deficiency of which of the following nutrients?

- a. Ascorbic acid
- b. Folic acid
- c. Homocysteine
- d. Niacin
- e. Alpha-Tocopherol (vitamin E)

7. A 64 years old man undergoes a total gastric resection for adenocarcinoma of the stomach. He has done well for 4 years but now presents with profound anorexia, fatigue, and vague neurological complaints. Position and vibration sensation are markedly diminished and hyperreflexia is pronounced. Laboratory studies including examination of the bone marrow, reveal pancytopenia and other findings compatible with megaloblastic anemia. He is likely suffering a deficiency of which essential vitamin?

- a. Folate
- b. Vitamin B12
- c. Vitamin C
- d. Vitamin D
- e. Vitamin K

8. A 65 year old known alcoholic is brought into hospital with confusion, aggressiveness and ophthalmoplegia. He is treated with diazepam. What other drug would you like to prescribe?

- a. Antibiotics
- b. Glucose
- c. IV Guide
- d. Disulfiram
- e. Vitamin B complex

9. In subacute combined degeneration of the cord, which of the following deficiency is responsible

- a. Vitamin B1
- b. Thiamine
- c. Vitamin B12
- d. Folic Acid
- e. Vitamin D

10. A 64 years old man undergoes a total gastric resection for adenocarcinoma of the stomach. He has done well for 4 years but now presents with profound anemia, fatigue, and vague neurologic complaints. Position and vibration sensation are markedly diminished and hyporeflexia is pronounced. Laboratory studies including examination of the bone marrow, reveals pancytopenia and other findings compatible with a megaloblastic anemia. He is likely suffering a deficiency of which essential vitamin?

- a. Folate
- b. Vitamin B12
- c. Vitamin C
- d. Vitamin D
- e. Vitamin K

11. A known case of Chronic Myeloid Leukemia who is on chemotherapy presented with a red swollen and tender big toe. What is your diagnosis

- a. Rheumatoid arthritis
- b. Gout (podagra)
- c. Septic arthritis
- d. Osteomyelitis
- e. None of the above

1. ANEMIA

12. A 62 year old woman with a long history of rheumatoid arthritis was recently placed on therapy with methotrexate. The physician should be on the alert for which of the following side effects of this newly added medication?

- a. Defective osteoid matrix production
- b. Hemorrhagic lesions of the mamillary bodies
- c. High output heart failure
- d. Impaired wound healing
- e. Megaloblastic anemia

13. Macrocytic anemia is caused by deficiency of:

- a. Iron
- b. Vitamin C
- c. Zinc
- d. Copper
- e. Vitamin B1

14. In a patients with chronic renal failure the anemia is due to the following causes

- a. Low erythropoietin level
- b. Acidosis
- c. Abnormal platelets function
- d. Hyperkalemia
- e. Hemolysis

15. Which of the following is required in treating a patient with anemia and MCV of 60 fl (76-98 fl) and transferrin saturation of less than 10% (30-50%)

- a. Vitamin B12
- b. Folic acid
- c. Iron
- d. Thiamine
- e. Zinc

16. A 62 year old woman with a long history of rheumatoid arthritis was recently placed on therapy with methotrexate. The physician should be on the alert for which of the following side effects of this newly added medication?

- a. Defective osteoid matrix production
- b. Hemorrhagic lesions of the mamillary bodies
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- d. Impaired wound healing
- e. Megaloblastic anemia

17. An 18 years old young man with known cystic fibrosis presents to the physician with ble third episode of kidney stones in the past year. In addition he has begun to complain of difficulty seeing at night. Such changes can be attributed to a deficiency of which vitamin?

- a. Pyridoxine
- b. Vitamin A
- c. Vitamin B1
- d. Vitamin B12
- e. Vitamin D

18. A 40 years old alcoholic reported to A and B WITH CONFUSION ATAXIA and lateral gaze nystagmus, What is your diagnosis out of the following options:

- a. Beri beri
- b. Pellagra
- c. Wernick's Encephalopathy
- d. Biotin deficiency
- e. Cerebellar infarction

19. While working with an International group of physicians to administer polio vaccine, a medical student sees several children with abdominal distention and pale streaks in the hair and skin. Cursory physical examination reveals significant hepatomegaly. The children likely suffer from ?

- a. Anorexia
- b. Beriberi
- c. Bulimia
- d. Kwashiorkor
- e. Marasmus

20. A 52-year-old recent Afghan refugee is brought to the emergency department after experiencing several convulsions. Further history reveals that she has been diagnosed with tuberculosis and has recently been started on a multidrug regimen that includes Isoniazid. Which of the following is the likely cause of her convulsions?

- a. Vitamin B1 (thiamine) deficiency
- b. Vitamin B2 (riboflavin) deficiency
- c. Vitamin B3 (niacin) deficiency
- d. Vitamin B6 (pyridoxine) deficiency
- e. Vitamin C (ascorbic acid) deficiency

21. Purpuric skin rash is common in which of the following deficiencies

- a. Vitamin B12
- b. Vitamin B6
- c. Vitamin B1
- d. Nicotinic acid
- e. Vitamin C

22. A patient presents with swollen and bleeding gums with normal bleeding time. Which is the appropriate treatment?

- a. Platelets
- b. Fresh Frozen Plasma
- c. Vitamin K
- d. Zinc
- e. Vitamin C

23. Which one of the following is not a recognised clinical feature of vitamin C deficiency (Scurvy)?

- a. Swollen and bleeding gums
- b. Perifollicular hemorrhages
- c. Ecchymoses
- d. Generalized lymphadenopathy
- e. Poor wound healing

24. An elderly man with painful legs was found to have the following bone profile: Calcium 2.15 mmol/l, Phosphate 1.1 mmol/l, Alkaline phosphatase 1090 iu/l. What is the most likely diagnosis?

- a. Osteoporosis
- b. Osteomalacia
- c. Pancreatitis
- d. Paget's disease
- e. Chronic renal failure

25. A 30 years old woman with backache having serum calcium of 1.8 mmol/l, phosphate 0.6 mmol/l and alkaline phosphatase 340 iu/l. What is the most likely diagnosis?

- a. Osteoporosis
- b. Primary hyperparathyroidism

- c. Secondary hyperparathyroidism
- d. Osteomalacia
- e. None of the above

26. The metabolic profile of a 60 years old patient shows the following low calcium, low phosphates, raised alkaline phosphatase, low 25(OH)D and raised PTH. What is the most likely diagnosis?

- a. Paget disease of bone
- b. Osteomalacia
- c. Rickets
- d. Osteoporosis
- e. Osteogenesis imperfecta

27. The clinical consequence of hypercalcemia include

- a. Peptic ulceration
- b. Diabetes mellitus
- c. Backaches
- d. Fever
- e. Leg pains

28. Hypercalciuria without hypercalcemia occurs in

- a. Secondary hyperparathyroidism
- b. Acidosis
- c. High calcium intake
- d. Osteomalacia
- e. Hydrochlorothiazide therapy

29. In a young man presenting with a single acutely inflamed joint, which of the following metabolic abnormalities is most likely responsible?

- a. High Calcium
- b. High Sugar Level
- c. High Cysteine Level
- d. High Uric acid
- e. High Cholesterol

30. Chronic hypercalcemia is associated with which of the following complications

- a. Hypertension
- b. Peptic ulcer

- c. Renal stones
- d. Depression
- e. All of them

1. Each of the following enzymatic defects is known to productive hyperuricemia except

- a. Hypoxanthine-guanine phosphoribosyl transferase (HGPRT) deficiency
- b. Muscle phosphorylase deficiency
- c. Glucose-6-phosphatase deficiency (G6PD)
- d. Phosphoribosyl pyrophosphate synthetase abnormalities B.
- e. Partial HPRT deficiency

32. A 27 year old female presents to us with acute abdomen, seizures, numbness in her hands, high blood pressure and tachycardia after a day fast. The patient also complains of her urine turning red standing. The patient has had similar episodes in the past and also her mother suffers from a similar condition. What is the most likely diagnosis?

- a. Acute intermittent Porphyria
- b. Acute appendicitis
- c. Torsion ovarian cyst
- d. Ectopic pregnancy
- e. Meckel's diverticulum

33. A 35 year old woman presented with odd behavior and difficulty in walking. She also complains of weakness, numbness and pins and needles in both feet. On examination the ankle jerk reflexes are lost and eventually all the signs of polyneuropathy are found. What is the likely diagnosis?

- a. Dry beri beri
- b. Vitamin B12 deficiency
- c. Vitamin B6 deficiency
- d. Vitamin E deficiency
- e. Vitamin B1 deficiency

34. Each of the following is true of cystic fibrosis EXCEPT

- a. it is characterized by repeated pulmonary infections, malabsorption, and an increased risk of intestinal obstruction due to intussusception
- b. diagnosis is confirmed by an elevation in the concentration of sodium and/or chloride in sweat
- c. because of the recent linkage of the cystic fibrosis gene to genetic markers on the long arm of chromosome 7, prenatal diagnosis is now available for all patients at risk
- d. the major morbidity and mortality are associated with pulmonary infections and the resultant cor pulmonale
- e. it is the most common autosomal disease in the white population in the United States

35. Which of the following is not true regarding Phytanic Acid Storage (Refsum's) Disease?

- a. Enhanced synthesis of Phytanic acid
- b. Peripheral neuropathy
- c. Failure to oxidize Phytanic acid
- d. Accumulation of exogenous Phytanic acid
- e. Retinitis pigmentosa

36. The major risk factor for ischemic Heart Disease (IHD) is a high value of

- a. LDL
- b. VLDL
- c. TG
- d. Total Cholesterol
- e. HDL

37. Each of the following statements is true about polycystic kidney disease EXCEPT

- a. There is an associated hepatic fibrosis
- b. the disease is inherited as an autosomal dominant trait
- c. approximately 10% of affected patients have cerebral aneurysms

- d. onset of clinical symptoms is usual in the fourth decade and renal dialysis and/or transplant is necessary by the fifth decade
- e. It is the most common form of inherited kidney disease in the adult

38. What percentage of autosomal genes do a boy and his maternal aunt have in common?

- a. 5%
- b. 12.5%
- c. 25%
- d. 33%
- e. 50%

39. Tourette syndrome is a common neuropsychiatric disease associated with chronic tics and vocalizations. Each of the following statements is true EXCEPT

- a. it is inherited as a multifactorial disease
- b. no more than 30% of the patients have coprolalia
- c. patients characteristically have problems with discipline and are prone to anger and violence
- d. haloperidol is the therapeutic drug of choice
- e. Onset is most commonly in the first decade of life

40. Which of the following corresponds to the karyotype 47XX+21?

- a. Down's syndrome
- b. Noonan's syndrome
- c. Klinefelter's syndrome
- d. Bloom's syndrome
- e. Turner's syndrome

41. Different alleles of N-acetyltransferase result in two different human phenotypes that differ in their ability to acetylate and metabolize certain drugs, including each of the following EXCEPT

- a. Isoniazid
- b. hydralazine
- c. salicyl-azo-sulfapyridine
- d. dapsone
- e. phenytoin

METABOLIC & NUTRITIONAL DISORDERS

42. A newborn infant of unaffected 26-year-old parents died recently in a hyperammonemic coma and was diagnosed as having ornithine carbamyl transferase deficiency (OCT). The mother is again pregnant and comes to you for counseling. Which of the following is correct?

- a. The best available option at this time is prenatal diagnosis and elective abortion
- b. The mother should be treated with sodium benzoate and restriction of dietary protein during pregnancy
- c. Fifty per cent of her sons but none of her daughters will be at risk of having OCT
- d. The neonate should be treated with sodium benzoate and restriction of dietary protein
- e. Metabolic acidosis is characteristically seen after treatment of neonatal hyperammonemia

1.E	2.D	3.D	4.D	5.D	6.D
7.B	8.E	9.C	10.B	11.B	12.E
13.B	14.A	15.C	16.E	17.B	18.C
19.D	20.D	21.E	22.E	23.D	24.D
25.D	26.B	27.A	28.A	29.D	30.E
31.B	32.A	33.B	34.C	35.A	36.
37.A	38.C	39.A	40.A	41.E	42.D