

1. Which of the following is False regarding H.Pylori infection :

a) With chronic infection urease breath test become negative

b) H.Pylori infection remain lifelong if untreated

c) Endoscopy is diagnostic

d) Toxigenic strains usually causes ulcer

e) None

Correct Answer - A

Answer is A. With chronic infection urease breath test become negative (With chronic infection urease breath test becomes negative)

Urease breath test detects H. pylori infection by 'bacterial urease activity' and remains positive till the bacteria has not been eradicated with treatment. Thus urease breath test becomes negative only after eradication of organism following treatment and not with chronic infection.

- Despite a substantial humoral antibody response infection persists indefinitely (persists life long if untreated)
- Invasive diagnostic test are based on Endoscopic, endoscopy is a diagnostic application.
- H. pylori produces several virulence factors that have been implicated in the damage of mucosa.

2. TRUE statement regarding infective endocarditis is/ are?

a) Jahnway lesions are blanchable hemorrhages on plams & soles

b) Jahnway lesions are tender

c) Jahnway lesions are non- tender

d) Osler's nodes are palpable nodules on the pulp of fingers & toes

e) Osler's nodes are non-tender

Correct Answer - A:C:D

Answer- A, C, D, Jahnway lesions are blanchable hemorrhages on plams & soles, Jahnway lesions are non- tender, Osler's nodes are palpable nodules on the pulp of fingers & toes

Patients with IE presents with features occuring due to microembolization of the cardiac vegetation to the various small vessels-

Osler's nodes

- Painful tender erythematous nodules.
- Seen in the skin of extremities usually in the pulp of the finger & sometimes toes.

Janeway lesions-

- Small flat, red spots, irregular in outline
- Non tender
- Seen in palms and soles.
- They are hemorrhagic and blanch on pressure

3. Causes of pulsus paradoxus include?

a) Constrictive pericarditis

b) Cardiac tamponade

c) Pulmonary embolism

d) Restrictive pericarditis

e) Emphysema

Correct Answer - A:B:C

Answer- A, B, C, Constrictive pericarditis, Cardiac tamponade, Pulmonary embolism

- In normal individual the systolic B.P. decreases by 10mm Hg during inspiration.

Causes of Pulsus paradoxus:

1. Cardiac tamponade
2. Chronic constrictive Pericarditis
3. Emphysema
4. Pulmonary embolism

4. Hypercalcemia with normal or increased with paratharmone is associated with?

a) Primary hyperparathyroidism

b) Vitamin D intoxication

c) Thiazide diuretics

d) Milk alkali syndrome

e) Familial hypercalciuric hypercalcemia

Correct Answer - A:E

Answer- A, E, Primary hyperparathyroidism, Familial hypercalciuric hypercalcemia

- 90% cases of hypercalcemia are caused by malignancy or hyperparathyroidism.
- Medications and familial hypocalciuric hypercalcemia.
- Familial cases of high PTH levels
- Neonatal severe hyperparathyroidism
- Primary hyperparathyroidism
- Secondary & tertiary hyperparathyroidism

5. Which of the following is TRUE regarding second heart sound?

a) Wide split in complete RBB

b) Splitting increased in inspiration & decreased in expiration

c) Splitting decreased in inspiration & increased in expiration

d) Wide split in complete LBB

e) Best heard at Erb's point

Correct Answer - A:B:E

Answer- A, B, E, Wide split in complete RBB, Splitting increased in inspiration & decreased in expiration, Best heard at Erb's point

- The changes in the intrathoracic pressures during breathing are transmitted to the heart and great vessels.
 - The increased amount of blood flow through the pulmonary valve produces delay in the closure of pulmonary valve.
 - Prolonged P2 and Early A2 resulting in splitting of 2nd heart sound.
 - During inspiration → (A2 and P2 are separated by more than 30 s)
 - During expiration the splitting disappears.
 - Erb's Point refers to the third intercostal space on the left sternal border where both components of S2 (A2 and P2) can be well appreciated.
- a) Delayed electrical activation of the right ventricle-
- Complete RBBB (proximal type)
 - b) Prolonged left ventricular mechanical systole
 - Complete LBBB (peripheral type)

6. True statement regarding Emery-Dreifuss muscular dystrophy is/are?

a) X-linked

b) Sudden death

c) Conduction defects

d) Cardiac involvement is rare

e) Contractures

Correct Answer - A:B:C:E

Answer- A, B, C, E, X-linked, Sudden death, Conduction defects, Contractures

Emery-Dreifuss Muscular Dystrophy (EDMD) is a rare genetic degenerative disease affecting skeletal muscle and the heart.

EDMD can be subdivided into 3 categories-

- 1. X-linked EDMD
- 2. Autosomal dominant
- 3. Autosomal recessive

Clinical features-

Triad of symptoms strongly suggests EDMD-

- 1. Slowly progressive muscle weakness and wasting in a scapulohumero- peroneal distribution
- 2. Early contractures of the elbow, ankle, and posterior neck
- 3. Cardiac conduction defects, cardiomyopathy
- Onset is usually in the teenage years

Cardiac disease-

- Cardiac disease may present with sudden cardiac death.

7. Which of the following are correct about cardiac arrest management according 2015 American Heart Association guidelines for Cardiopulmonary resuscitation (CPR) & Emergency Cardiovascular Care [ECG]?

- a) Ventricular fibrillation requires synchronized cardioversion
- b) Monophasic defibrillators are preferred over biphasic devices
- c) Epinephrine (1 mg) is the DOC for cardiac arrest
- d) Lidocaine may be considered as an alternative to amiodarone for unresponsive VF/pVT
- e) Vasopressin provides added advantage when combined with epinephrine

Correct Answer - C:D

Answer- C, D, Epinephrine (1 mg) is the DOC for cardiac arrest, Lidocaine may be considered as an alternative to amiodarone for unresponsive VF/pVT

- Defibrillation is used to treat certain types of arrhythmias (ventricular fibrillation and pulseless ventricular tachycardia) while synchronized cardioversion is used to treat others i.e. unstable narrow and wide complex tachyarrhythmias such as atrial fibrillation, atrial flutter and ventricular tachycardia.)

8. Endocrinal causes of weight gain include?

a) Thyrotoxicosis

b) Hypothyroidism

c) Addison disease

d) Cushing syndrome

e) Pheochromocytoma

Correct Answer - B:D

Answer- B, D, Hypothyroidism, Cushing syndrome

- Cushing's syndrome
- Hypothyroidism
- Insulinoma
- Craniopharyngioma

9. Hyperprolactinemia is associated with?

a) Pituitary adenoma

b) Hyperinsulinemia

c) Pregnancy

d) Lactation

e) All of the above

Correct Answer - E

Answer- E. All of the above

1. Physiologic
 - Pregnancy
 - Lactation
2. Hypothalamic-pituitary stalk damage
 - Craniopharyngioma
 - Suprasellar pituitary mass
 - Empty sella
 - Granulomas
 - Rathke's cyst
3. Pituitary hypersecretion
 - Pituitary adenoma (Prolactinoma)
4. Systemic disorder
 - Chronic renal failure
 - Hypothyroidism
 - Cirrhosis
5. Drug induced
 - Dopamine receptor blockers
 - Opiates
 - H2 antagonists - Cimetidine, ranitidine



10. Causes of chronic empyema include?

a) Drainage of pleural effusion

b) Inadequate antibiotic treatment for acute empyema

c) Inadequate needle aspiration of acute empyema

d) Vigorous chest physiotherapy

e) Ruptured subphrenic abscess

Correct Answer - A:B:C:E

Answer- A, B, C, E, Drainage of pleural effusion, Inadequate antibiotic treatment for acute empyema, Inadequate needle aspiration of acute empyema, Ruptured subphrenic abscess

1. Parapneumonic empyema- Streptococcus pneumonia is the major pathogen.
2. Antecedent conditions such as malnutrition, measles or infection with antibiotic-resistant organisms may increase the risk of severe pneumonia accompanied by empyema.
3. Trauma is another important cause of empyema thoracis
4. CET is therefore an important sequela of untreated or poorly treated empyema thoracis (treatment includes antibiotics).
5. Empyema may include spread from a ruptured subphrenic abscess, cardiothoracic surgery sharp force trauma to the chest, esophageal rupture and following drainage of a pleural effusion (thoracentesis).
6. In the treatment of acute empyema, the chronic condition is often due to an imperfectly drained sinus with continuance of the original empyema cavity.

11. A patient presented with recurrent hemoptysis. Vessel which should be evaluated for angiography include?

a) Pulmonary artery

b) Pulmonary vein

c) Branchial artery

d) Branchial vein

e) Superior vena cava

Correct Answer - A:C

Answer- A, C, Pulmonary artery, Branchial artery

- Hemoptysis is defined as massive (massive hemoptysis) when blood loss is more than 400-600 ml/day.

The lung has two blood circulations-

- A. System vessels (Bronchial vessels)
- B. Pulmonary vessels
- Most often hemoptysis originates from a bronchial artery source, with only 70% of cases arising from the pulmonary artery.

12. Community acquired native valve infective endocarditis is caused by?

a) Streptococcus viridians

b) Staphylococcus aureus

c) Enterococcus

d) Candida

e) Pseudomonas aerogenosa

Correct Answer - A:B:C

Answer- A, B, C, Streptococcus viridians, Staphylococcus aureus, Enterococcus

- Staphylococcus aureus followed by Streptococci of the viridans group and coagulase negative Staphylococci are the three most common organisms responsible for infective endocarditis.
- Staphylococcus aureus is the most common overall cause of infective endocarditis and is also the most common cause in native valve and intravenous drug users.
- Coagulase-negative staphylococci (staphylococcus aureus) is the most common cause in prosthetic valve endocarditis.
- Streptococcus viridians are the most frequently isolated microorganisms when the infection is acquired in a community setting.
- Streptococcus mutans is the most common cause of endocarditis after dental procedure.
- Bacteria causing infective endocarditis are Pseudomonas species (i/v drug abuser), S. bovis, Clostridium septicum and HACEK organisms.

- Candida albicans is associated with endocarditis in IV drug users, patients with prosthetic valves and immunocompromised patients.

13. Diagnostic criteria for Gullian Barre syndrome includes?

a) Areflexia

b) Progressive weakness of at least 2 limbs

c) Exclusion of vasculitis

d) Albumin-cytological dissociation

e) Presence of fever

Correct Answer - A:B:C:D

Answer- A, B, C, D, Areflexia, Progressive weakness of at least 2 limbs, Exclusion of vasculitis, Albumin-cytological dissociation

Diagnostic criteria for Guillain Barre syndrome- Required-

- . Progressive weakness of 2 or more limbs due to neuropathy.
- . Areflexia
- . Exclusion of other causes [e.g. vasculitis]

Supportive-

- Mild sensory involvement
- Facial nerve or other cranial nerve involvement
- Typical C.S.F profile (albumino- cytological dissociation)
- Absence of fever

14. True statement about diabetic ketoacidosis is/are?

a) Ph < 7.3

b) Ketonemia

c) Absent urinary ketone bodies

d) Glucose level > 300mg/dl

e) Bicarbonate < 15 meq/l

Correct Answer - A:B:D:E

Answer- A, B, D, E, Ph < 7.3, Ketonemia, Glucose level > 300mg/dl, Bicarbonate < 15 meq/l

- Ketoacidosis is rare in type II diabetes where insulin levels although functionally inadequate are still sufficient to prevent ketone body formation.
 - Arterial pH is 7.25 - 7.35, 7.0 -7.24 & < 7.0 in mild, moderate & severe DKA.
- Diabetic ketoacidosis is characterized by-**
1. Hyperglycemia,
 2. Ketosis (ketonemia) and ketonuria
 3. Acidosis
- Ketones are an early indicator of diabetic ketoacidosis and should be measured in individual with type I diabetes mellitus.
 - When the plasma glucose is consistently >16.7 mmol/L (300 mg/dl).
- Hyperketonemia and acidosis-**
- Hormone sensitive lipase is inhibited by insulin and activated by counter regulatory hormones.
 - The serum bicarbonate level in D.K.A. is typically decreased to less

than 15meq/l.

15. In a case of stroke which of the following heart condition can be suspected?

a) Mitral stenosis

b) Aortic regurgitation

c) Patent foramen ovale

d) Recurrent atrial arrhythmias

e) Heart failure

Correct Answer - A:C:D:E

Answer- A, C, D, E, Mitral stenosis, Patent foramen ovale, Recurrent atrial arrhythmias, Heart failure

- The most common cause of embolic strokes are Intra-cardiac Thrombi.
- **Male sex**
- Previous Stroke or Transient Ischemic Attack
- High blood pressure
- Heart disease - myocardial infarction (heart attack), mitral stenosis, heart failure
- Cardiac arrhythmias - especially atrial fibrillation, ventricular tachycardia and ventricular fibrillation.
- Smoking
- Diabetes
- High blood cholesterol levels
- Sickle cell disease
- Oral contraceptives
- Excessive alcohol intake

16. Components of Cushing's triad include?

a) Bradycardia

b) Tachycardia

c) Wide pulse pressure

d) Hypotension

e) Irregular breathing

Correct Answer - A:C:E

Answer- A, C, E, Bradycardia, Wide pulse pressure, Irregular breathing

1. Hypertension

2. Bradycardia

3. Irregular breathing

17. A patient presented with haematuria with acute renal failure. On doing renal biopsy, it showed crescentic glomerulonephritis. Immunofluorescence findings showed C3 & IgG deposition. Most likely diagnosis among the following is?

a) Membranous glomerulonephritis

b) Minimal change disease

c) Monoclonal deposition disease

d) Acute post-infectious glomerulonephritis

e) Focal segmental glomerulosclerosis

Correct Answer - D

Answer- D. Acute post-infectious glomerulonephritis

- PSGN appears 1 to 4 weeks after infection of pharynx or skin by specific nephritogenic strains (12, 4 and 1) of group A beta hemolytic streptococci.
- The lesions are caused by Type III hypersensitivity reaction with immune complex deposition and complement activation, causing decreased complement level.

Clinical features-

- Hematuria
- Oliguria, Non-selective proteinuria
- PSGN causes acute renal failure.
- By immunofluorescence microscopy, there are irregular granular deposits of IgG, IgM and C3 in the mesangium and along the

basement membrane (starry sky appearance).

18. WHO conditioned guidelines for treatment of MDR TB 2016, includes 4 core drugs and add on drugs. Add on drugs are?

a) Bedaquiline

b) Linzolid

c) Delamanid

d) Capreomycin

e) Moxifloxacin

Correct Answer - A:C

Answer- A,Bedaquiline C,Delamanid

- Group A=levofloxacin, moxifloxacin, gatifloxacin
- Group B=amikacin, capreomycin, kanamycin, (streptomycin);
- Group C= ethionamide (or prothionamide), cycloserine (or terizidone), linezolid, clofazimine;
- Group D2=bedaquiline, delamanid

19. Features of variant Crutzfeldts-Jakob disease are -

a) Viral disease

b) Prion disease

c) Occur due to consumption of beef from cattle with bovine spongiform encephalopathy

d) Sporadic form is the most common

e) Prognosis is good

Correct Answer - B:C:D

Answer- B, C, D, Prion disease, Occur due to consumption of beef from cattle with bovine spongiform encephalopathy, Sporadic form is the most common

- It is a rare fatal degenerative disease of central nervous system that is caused by infectious protein called prion.
- Prion are only known infectious pathogens.
- There are four forms of CJD. They are sporadic (80-85%), familial inherited (15%); iatrogenic/acquired (1%), new variant (can be acquired by eating beef meat from cattle affected by a disease similar to CID called bovine spongiform encephalopathy (BSE) or commonly "mad cow" disease).

Clinical features-

- Most of the Patient of CJD presents as dementia and myoclonus.

20. A tuberculosis patient was sputum positive even 5 months after the treatment with rifampicin, isoniazid, moxifloxacin & amikacin. Diagnosis is?

a) MDR TB

b) XDR TB

c) Polydrug resistance TB

d) Monoresistance

e) Rifampicin resistance

Correct Answer - B:C

Answer- B,XDR TB C,Polydrug resistance TB

- Polydrug resistance: Resistance to more than one first-line anti-TB drug (other than INH and rifampicin).
- Multi drug resistance TB (MDR TB) is referred to resistance to "isoniazid and rifampicin".
- Rifampicin-resistance TB (RR-TB) : It includes any resistance to rifampicin. whether non resistance, multidrug resistance,
- polydrug resistance or extensive drug resistance.

21. The marker used for determining efficacy of hepatitis B vaccination is?

a) HBsAg

b) IgM anti HBc Ag

c) IgG anti HBc Ag

d) Anti HBs Ag

e) Anti HBe Ag

Correct Answer - D

Answer- D. Anti HBs Ag

- "Positive Anti HBsAg determines the efficacy of hepatitis B vaccination.

22. Which of the following favours diagnosis of chronic renal failure rather than acute renal failure -

a) Anemia

b) Peripheral neuropathy

c) Small kidney

d) Renal osteodystrophy

e) Daily increase in creatinine

Correct Answer - A:B:C:D

Answer- A, B, C, D, Anemia, Peripheral neuropathy, Small kidney, Renal osteodystrophy

- Renal sonogram showing small kidneys- Usually CKD
- Oliguria, daily increases in serum creatinine and BUN- Probably ARF or ARF superimposed on CKD
- Severe anemia renal osteodystrophy (hyperphosphatemia, hypocalcemia)- Possibly CKD but may be ARF Peripheral neuropathy

23. TRUE statement regarding scleroderma is/are?

- a) Localized disease more commonly involves face and extremities
- b) There is progressive pulmonary fibrosis in most cases
- c) Pulmonary arterial disease without fibrosis can also cause pulmonary arterial hypertension
- d) ACE inhibitors can be used in renal hypertension
- e) All of the above

Correct Answer - E

Answer- E. All of the above

- Systemic sclerosis characterized by abnormal accumulation of fibrous tissue in skin and multiple organs.
 - The skin is most commonly affected, but the GIT, kidney, heart, muscles and lungs also are involved.
- The disease is divided into two categories-**
- 1. Diffuse scleroderma-**
 - There is rapid progression with early visceral involvement.
 - 2. Limited (localized) scleroderma (morphea)-**
 - Skin involvement is confined to fingers, forearm and face.
 - Pulmonary fibrosis- Frequent, early and severe
 - Pulmonary arterial hypertension- often in association with pulmonary fibrosis.
- Treatment-**
- Among patients with SRC, "ACE inhibitors" are recommended rather than other antihypertensive agents.

24. Feature of hypomagnesemia -

a) Seizures

b) Athetoid movements

c) Tremors

d) Bradycardia

e) Improvement with Ca supplements

Correct Answer - A:B:C

Answer- A, B, C, Seizures, Athetoid movements, Tremors

Clinical features-

1. Hypocalcemia & hypokalemia like tiredness, generalized weakness, muscle cramps.
2. Cardiovascular:- Arrhythmias, hypertension, tachycardia & cardiac arrest including torsade de pointes.
3. Neuromuscular and CNS :-increased irritability of the nervous system with tremors, parasthesias, system, spasticity.
4. hypomagnesemia are athetosis, jerking, nystagmus, and an extensor plantar reflex, confusion, disorientation, hallucination, & depression.
5. Severe hypomagnesemia may cause generalized tonic-clonic seizures.
- Hypocalcemia can be worsened by isolated treatment of hypomagnesaemia with intravenous magnesium sulfate because sulfate binds ionized calcium.

25. Features of parkinsonism include all except -

a) Intention tremors

b) Flaccidity

c) Mask face

d) Rigidity

e) Resting tremors

Correct Answer - A:B

Answer- A, B, Intention tremors, Flaccidity

- Four cardinal features of PD that can be grouped under the acronym TRAP-
- Tremor at rest, Rigidity, Akinesia (or bradykinesia) and Postural instability.

26. Which of the following can occur in COPD

-

a) Hypoxemia

b) Hypercarbia

c) Decreased gas exchange in terminal bronchioles

d) Acidosis

e) Hypocarbica

Correct Answer - A:B:C:D

Answer- A, B, C, D, Hypoxemia, Hypercarbia, Decreased gas exchange in terminal bronchioles, Acidosis

- The most common symptoms of COPD are sputum production, shortness of breath, and a productive cough.
- Emphysema is characterized by destruction of gas-exchanging air spaces i.e. the respiratory bronchioles, alveolar ducts and alveoli.
- Low oxygen levels (hypoxia) then high carbon dioxide level in the blood (hypercapnia /hypercarbia)
- There is a development of respiratory acidosis also called hypercapnic acidosis.

27. True regarding porphyria is/are?

- a) Hydroxymethylbilane synthase(HMBS) deficiency causes acute intermittent porphyria
- b) Photosensitivity is common in acute intermittent porphyria
- c) Erythropoietic porphyria is caused by uroporphyrinogen decarboxylase (UROD) deficiency
- d) Porphyria cutanea tarda is characterized by vesicubullous lesions
- e) Erythropeitic porphyria shows strong photosensitivity

Correct Answer - A:D:E

Answer- A,Hydroxymethylbilane synthase(HMBS) deficiency causes acute intermittent porphyria D,Porphyria cutanea tarda is characterized by vesicubullous lesions E,Erythropeitic porphyria shows strong photosensitivity

The following table gives summary of the major findings of porphyrias

Type and class	Enzyme involved	Major symptoms
Hepatic porphyrias:		
• Acute intermittent porphyria	Uroporphyrinogen I synthase	Abdominal pain Neuropsychateic.
• porphyria cutanea tarda	Uroporphyrinogen decarboxylase	Photosensitivity Abdominal pain Neuropsychateic
• Hereditary	Coproporphyrin oxidase	Photosensitivity Abdominal pain
	Protoporphyrinogen	

- copro-porphyrin oxidase Neuropsychiatric Photosensitivity
- Variegated porphyria
- **Erythrohepatic porphyrias:**
- Congenital erythrohepatic porphyria Uroporphyrinogen III synthase Photosensitivity
- **Erythrohepatic porphyrias:** Ferrochelatase Photosensitivity
- Protoporphyrin

28. Safest transplantation approach in liver disease-

a) Directly transplanting embryonic stem cell in the liver

b) Transplanting donor hepatocytes into liver

c) Transplanting mesenchymal stem cell from adipose tissue to liver

d) Injecting erythropoietin into body

e) None

Correct Answer - C

Answer- C. Transplanting mesenchymal stem cell from adipose tissue to liver

- Today, autologous (from the patient) adipose tissue stem cell are the only stem cells that have been used clinically for treating liver disease.
- Many trials have shown that patients with liver cirrhosis have benefitted from autologous adipose tissue derived mesenchymal stem cells

29. True about multiple sclerosis:

a) Periventricular involvement can't be seen by imaging studies

b) May produce mass lesion

c) Autoimmune inflammatory condition

d) Oligoclonal bands may be present in CSF

e) Spinal cord involvement may occur

Correct Answer - B:C:D:E

Answer- B,May produce mass lesion C,Autoimmune inflammatory condition D,Oligoclonal bands may be present in CSF E,Spinal cord involvement may occur

- "Elevated IgG in cerebrospinal fluid and discrete bands of IgG (oligoclonal bands) are present in many patients.
- It is an autoimmune disease of the CNS characterized by chronic inflammation demyelination, gliosis (scarring) and neuronal loss; the course can be relapsing-remitting or progressive.

30. Which of the following is/are feature of aortic stenosis-

- a) Duration between onset of symptom and death is generally 10-15 year
- b) Angina occurs mainly because of fixed coronary blood flows
- c) No increase in cardiac output despite exercise
- d) Ejection systolic murmur radiating to neck may present
- e) Left ventricular hypertrophy

Correct Answer - C:D:E

Answer- C, D, E, No increase in cardiac output despite exercise

(D) Ejection systolic murmur radiating to neck may present

(E) Left ventricular hypertrophy

The average time to death after the onset of various symptoms is as follows:

- angina pectoris, 3 years
- syncope, 8 years
- dyspnea, 2 years
- congestive heart failure, 1.5-2 years.
- Mild or moderate stenosis:
- usually asymptomatic
- Exertional dyspnoea
- Angina
- Exertional syncope
- Sudden death
- Episodes of acute pulmonary oedema

Signs

- Ejection systolic murmur
- Slow-rising carotid pulse
- Thrusting apex beat (LV pressure overload)
- Narrow pulse pressure
- Signs of pulmonary venous congestion (e.g. crepitations)
- The murmur of AS is characteristically an ejection (mid) systolic murmur.
- The LV becomes increasingly hypertrophied and coronary blood flow may then be inadequate.

31. In which of the following condition, non-hepatic surgery is associated with most adverse outcome:

a) Child-Pugh score B

b) Child-Pugh score C

c) Acute viral hepatitis

d) Acute alcoholic hepatitis

e) Chronic viral hepatitis

Correct Answer - B

Answer- B. Child-Pugh score C

Table 3. Child-Pugh Grading System

Class	Total Points
A: well-compensated disease	5-6
B: functional compromise-worsening disease	7-9
C: decompensated disease	10-15

32. True about organophosphate-induced delayed polyneuropathy:

a) Usually occurs after 2-3 month of acute exposure

b) Involves both sensory and motor nerve

c) Steroid is used for treatment

d) Incomplete recovery

e) None

Correct Answer - A:B:D

Answer- A, B, D, Usually occurs after 2-3 month of acute exposure (B) Involves both sensory and motor nerve (D) Incomplete recovery

- Organophosphate-induced delayed polyneuropathy (OPIDN) is a rare complication that usually occurs 2-3 weeks after acute exposure. It is a mixed sensory/motor polyneuropathy.
- Recovery is often incomplete

33. Plexiform lesion is prominent in which group of pulmonary hypertension-

a) Recurrent thromboemboli

b) Interstitial lung diseases

c) Familial pulmonary HTN

d) Congenital heart disease with left-to-right shunts

e) Pulmonary hypertension associated with human immunodeficiency

Correct Answer - C:D:E

Answer- C,Familial pulmonary HTN D,Congenital heart disease... E,Pulmonary hypertension associated...

- Plexiform lesions are most prominent in idiopathic and familial pulmonary hypertension, unrepaired congenital heart disease with left to right shunts and pulmonary hypertension associated with human immunodeficiency.

34. True about coagulation disorders-

a) In DIC both PT and aPTT increase

b) Hemophilia C is a X linked recessive condition

c) Factor VIII can be given in hemophilia B

d) Hemophilia A is inherited as X- linked recessive

e) None

Correct Answer - A:D

Answer- A,In DIC both PT and aPTT increase D,Hemophilia A is inherited as X- linked recessive

- Hemophilia A: Inheritance is X- linked recessive, leading to affected males and carrier females.
- Common findings include the prolongation of PT and/or aPTT;

35. Unlike Child Pugh scoring, MELD score have:

a) Bedside assessment easy

b) Prothrombin time expressed as international normalized ratio (INR)

c) Serum creatinine estimation

d) Four component is used in scoring

e) Albumin level estimation

Correct Answer - B:C

Answer- B, Prothrombin time expressed as international normalized ratio (INR) and (C) Serum creatinine estimation

- This score is calculated from three noninvasive variables: the prothrombin time expressed as the international normalized ratio (INR), the serum bilirubin level, and the serum creatinine concentration
- MELD is currently used to establish priority listing for liver transplantation.

36. True about idiopathic thrombocytopenic purpura:

a) In children, it is usually an chronic disease

b) Self-limited course in acute form

c) In adults, it is a more acute disease

d) Immune-mediated destruction of platelets

e) None

Correct Answer - B:D

Answer- B,Self-limited course in acute form D,Immune-mediated destruction of platelets

- It is an acquired disorder in which there is immune- mediated destruction of platelets and possibly inhibition of platelet release from the megakaryocyte.
- In children, it is usually an acute disease most commonly following an infection, and with a self limited course.
- In adults, it is a more chronic disease.

37. Finding(s) In hemolytic anemia is/are:

a) Increase in conjugated bilirubin

b) Increase in unconjugated bilirubin

c) Increase in urine urobilinogen

d) Increase in faecal stercobilinogen

e) Increased bilirubin in urine

Correct Answer - B:C:D

Answer- B,Increase in unconjugated bilirubin C,Increase in urine urobilinogen D,Increase in faecal stercobilinogen

- Decrease Haemoglobin
- Increased Unconjugated bilirubin
- Increase lactate dehydrogenase
- Increase Reticulocytes
- Increase urobilinogen

38. Risk factors associated with health care associated pneumonia (HCAP)-

a) Acute care hospitalization for at least 2 days in the preceding 90 days

b) Home infusion therapy

c) Immunosuppressive disease or immunosuppressive therapy

d) Antibiotic therapy in the preceding 90 days

e) Hospitalization for > 48 h

Correct Answer - A:B:C:D:E

Answer- (A) Acute care hospitalization for at least 2 days in the preceding 90 days (B) Home infusion therapy

(C) Immunosuppressive disease or immunosuppressive therapy (D) Antibiotic therapy in the preceding 90 days

(E) Hospitalization for > 48 h

- Acute care hospitalization for at least 2 days in the preceding 90 days
- Residence in a nursing home or extended care facility
- Home infusion therapy, including chemotherapy, within the past 30 days
- Long-term dialysis within the past 30 days
- Home wound care
- Family member with an infection involving a multiple drug resistant pathogen
- Immunosuppressive disease or immunosuppressive therapy

39. Which of the following is/ are included in management of acute ischemic stroke-

a) Unfractionated Heparin

b) LMWH

c) Streptokinase

d) Aspirin

e) Recombinant tissue plasminogen activator (rt-PA)

Correct Answer - D:E

Answer- D,Aspirin E,Recombinant tissue plasminogen activator (rt-PA)

- Recombinant Tissue plasminogen Activator (RtPA) is the only thrombolytic agent that is approved for the treatment of acute ischaemic stroke.
- Use of aspirin within 48 h of stroke onset reduced both stroke recurrence risk and mortality minimally.

40. Positive ECG sign(s) of ischemia in Tread mill test is/ are-

a) Upsloping depression of the ST segment mV below baseline

b) Downsloping depression of the ST segment >0.1 mV below baseline

c) Junctional ST-segment

d) Tachycardia

e) Ventricular premature beats

Correct Answer - B

Answer- B. Downsloping depression of the ST segment >0.1 mV below baseline

- The ischemia ST:-segment response generally is defined as flat or downsloping depression of the ST segment >0.1 mV below baseline (i.e., the PR segment) and lasting longer than 0.08s.
- Upsloping or junctional ST-segment changes are not considered characteristic of ischemia and do not constitute a positive test.

41. All are feature(s) of sarcoidosis except:

a) High CD4: CD8 ratio

b) Hypercalciuria and hypercalcemia maybe present

c) f Serum levels of angiotensin-converting enzyme (ACE)

d) Schauman and asteroid bodies are pathognomic

e) None

Correct Answer - D

Answer- D. Schauman and asteroid bodies are pathognomic

- Hypercalcemia and/or Hypercalciuria occurs in about 10% of sarcoidosis patients.
- Bronchoalveolar lavage fluid In sarcoidosis is usually characterized by an increase in lymphocyte and a high CD4/ CD8 ratio.
- "Schauman and asteroid bodies- although characteristic, these cells are not pathognomic of sarcoidosis because they may be encountered in other granulomatous diseases.
- The granuloma is the pathologic hallmark of sarcoidosis.
- "Serum levels of anglotensin-converting enzyme (ACE) can be helpful in the diagnosis of sarcoidosis.

42. True about atrial flutter:

a) Narrow-complex tachycardia of up to 150/min

b) P wave absent

c) Associated with 2 : 1, 3 : 1 or 4 : 1 AV block

d) Best therapy is catheter ablation

e) Occur due to macro re-entry circuit within the right atrium

Correct Answer - A:C:D:E

Answer- A,Narrow-complex... C,Associated with... D,Best therapy... E,Occur due to macro re-entry...

- Atrial flutter is characterised by a large (macro) re-entry circuit, usually within the right atrium encircling the tricuspid annulus.
- The atrial rate is approximately 300/min, and is usually associated with 2 : 7, 3 : 1 or 4 : 1 AV block
- Atrial flutter should always be suspected when there is a narrow-complex tachycardia of 150/min.
- For recurrent episodes of common atrial flutter, catheter ablation of the cavotricuspid isthmus abolishes the arrhythmia in over 90% of patient.

43. Transudative pleural effusion occurs in:

a) Urinothorax

b) Dressler syndrome

c) Nephrotic syndrome

d) Myxedema

e) Congestive heart failure

Correct Answer - A:C:D:E

Answer- (A) Urinothorax (C) Nephrotic syndrome

(D) Myxedema (E) Congestive heart failure

- Congestive heart failure
- Cirrhosis
- Pulmonary embolization
- Nephrotic syndrome
- Peritoneal dialysis
- Superior vena cava obstruction
- Myxedema
- Urinothorax

44. True about primary sclerosing cholangitis:

a) Involves only intrahepatic bile duct, not extrahepatic bile duct

b) Associated with Inflammatory bowel disease

c) Causes macronodular cirrhosis

d) Periductal fibrosis of smaller bile ducts

e) None

Correct Answer - B:D

Answer- (B) Associated with Inflammatory bowel disease

(D) Periductal fibrosis of smaller bile ducts

- PSC is characterized by Inflammation and obliterative fibrosis of Intrahepatic and extrahepatic bile ducts w/ dilation of preserved segments.
- Inflammatory bowel disease , particularly ulcerative colitis, coexists in approximately 70% of individuals with PSC.
- Primary sclerosing cholangitis causes micronodular cirrhosis.
- Following changes are seen- fibrosing cholangitis, periductal fibrosis, dilation of intervening bile ducts and cholestasis with full blown picture of biliary cirrhosis"

45. True about 4th heart sound:

a) Low pitch

b) Present during early diastole

c) Absent in atrial fibrillation

d) Produced in the ventricle during ventricular filling phase

e) Present in severe left ventricular hypertrophy

Correct Answer - A:C:D:E

Answer- A,Low pitch C,Absent in atrial fibrillation D,Produced in the ventricle during ventricular filling phase E,Present in severe left ventricular hypertrophy

Fourth heart sounds (S4):

- Low pitched
- Pre-systolic sound produced in the ventricle during ventricular filling
- Produced during second rapid filling phase (before S1)
- Best heard with bell of stethoscope.
- The right-sided S4 is present in patients with right ventricular hypertrophy secondary to either pulmonic stenosis or pulmonary hypertension.

46. Photosensitivity is/ are not seen in-

a) Acute intermittent porphyria

b) Variegate porphyria

c) Porphyria cutanea tarda

d) Congenital erythropoietic porphyria

e) Erythropoietic protoporphyria

Correct Answer - B

Answer- B.Variegate porphyria

- Ferrochelatase- erythropoietic protoporphyria
- Protoporphyrinogen oxidase- Variegate porphyria
- PBG deaminase- acute intermittent
- Uroporphyrinogen synthetase- Congenital erythropoietic porphyria
- Uroporphyrinogen decarboxylase- porphyria cutanea tarda

47. True about insulinoma:

a) Encapsulated

b) Mostly multiple

c) Associated with MEN-I

d) Enucleation is the treatment of choice for benign tumour

e) Histology similar to normal (3-cells

Correct Answer - A:C:D:E

Answer- (A) Encapsulated (C) Associated with MEN-I

(D) Enucleation is the treatment of choice for benign tumour

(E) Histology similar to normal (3-cells

- Insulinoma is usually solitary and well encapsulated tumour
- 10% are multiple (always associated with MEN 1) and 10% are malignant.
- Microscopically, the tumour is composed of cords and sheet of well-differentiated Beta-cells which do not differ from normal cells.
- Enucleation is the treatment of choice for benign insulinomas.

48. Respiratory failure type II is/ are seen in-

a) Myasthenia gravis

b) Acute exacerbation in COPD

c) Acute severe Asthma

d) Pulmonary edema

e) Pulmonary embolism

Correct Answer - A:B:C

Answer- A,Myasthenia gravis B,Acute exacerbation in COPD C,Acute severe Asthma

- Acute severe asthma
- Acute exacerbation of COPD
- Upper airway obstruction
- Acute neuropathies/ paralysis
- Narcotic drugs
- Primary alveolar hypoventilation
- Flail chest injury

49. All are true Celiac disease except-

a) Antiendomysial antibody is present

b) Oat, rye and barley can be safely given

c) Associated with dermatitis herpetiformis

d) Associated with gliadin

e) No risk for development of cancer

Correct Answer - B:E

Answer- B,Oat, rye and barley can be safely given E,No risk for development of cancer

- It is an inflammatory disorder of the small bowel occurring in genetically susceptible individuals, which results from
- intolerance to wheat gluten and similar proteins found in rye, barley and, to a lesser extent, oats.
- Serum antibodies-IgA antigliadin, antiendomysial, and anti-tTG antibodies- are present.
- Celiac disease is associated with dermatitis herpetiformis (DH).
- The most important complication of celiac disease is the development of cancer.

50. True about Hypersensitivity pneumonitis:

- a) Occurs due to inorganic antigen
- b) Increased CD8+ T cells in bronchoalveolar lavage
- c) Manifests mainly as an occupational and environment disease
- d) For severe acute cases, oral steroids is given for 3-4 weeks
- e) Interstitial inflammatory infiltrate is seen in lung

Correct Answer - B:C:D:E

Answer- (B) Increased CD8+ T cells in bronchoalveolar lavage (C) Manifests mainly as an occupational and environment disease (D) For severe acute cases, oral steroids is given for 3-4 weeks (E) Interstitial inflammatory infiltrate is seen in lung

- It is manifested mainly as an occupational disease, in which exposure to inhaled organic agents leads to acute and eventually chronic pulmonary disease.
- Bronchoalveolar lavage specimens also consistently demonstrate increased numbers of both CD4+ and CD8+ T lymphocytes.
- Histology shows evidence of an interstitial inflammatory infiltrate in the lung.
- In acute cases, prednisolone should be given for 3-4weeks, starting with an oral dose of 40 mg per day.

51. Tubular proteinuria is/are seen in :

a) Multiple myeloma

b) Wilson disease

c) Lead poisoning

d) Fanconi syndrome

e) None

Correct Answer - B:C:D

Answer- B,Wilson disease C,Lead poisoning D,Fanconi syndrome

- Tubular proteinuria occurs as a result of faulty reabsorption of normally filtered proteins in the proximal tubule, such as Beta2-microglobulin and immunoglobulin light chains.
- Causes include acute tubular necrosis, toxic injury (lead, aminoglycosides), drug-induced interstitial nephritis, and hereditary metabolic disorders (Wilson disease and Fanconi syndrome).

52. All are true about SjOgren's syndrome except-

a) Bilateral parotid gland enlargement

b) Parotid gland enlargement may be painful

c) Xerostomia may present

d) Progression to lymphoma

e) Males are affected more than females

Correct Answer - E

Answer- E. Males are affected more than females

- Sjogren's syndrome is an autoimmune disorder associated with parotid glands.
- It affects women more (40- 60 years)

Clinical Features-

- Dry eyes (keratoconjunctivitis sicca)
- Xerostomia
- Vaginal dryness
- Raynaud's phenomenon
- Lymphoma
- Splenomegaly

53. High anion gap acidosis is/are associate

a) Lactic acidosis

b) Ethylene glycol poisoning

c) Aspirin overdose

d) Diarrhea

e) Renal tubular acidosis

Correct Answer - A:B:C

Answer- A,Lactic acidosis B,Ethylene glycol poisoning C,Aspirin overdose

- Lactic acidosis
- Ketoacidosis(diabetic,alcoholic,starvation)
- Toxins (ethylene glycol, methanol, glycol, pyroglutamic acid)
- Renal failure (acute and chronic)

54. Proximal renal tubular acidosis(RTA) is/are associated with:

a) Fanconi anemia

b) Multiple myeloma

c) Lead poisoning

d) Sjogren's syndrome

e) SLE

Correct Answer - A:B:C

Answer- A,Fanconi anemia B,Multiple myeloma C,Multiple myeloma

- Inherited Fanconi's syndrome Cystinosis .
- Heavy metal toxicity Lead, cadmium and mercury Poisoning
- Wilson's disease
- Drugs Carbonic anhydrase Inhibitors Ifosfamide
- Paraproteinaemia Myeloma
- Amyloidosis
- Hyperparathyroidism

55. Feature of Felty's syndrome is/ are-

a) Seropositive for rheumatoid factor

b) Splenomegaly

c) Long standing rheumatoid arthritis

d) Neutrophilia

e) Keratoconjunctivitis sicca

Correct Answer - A:B:C:E

Answer- (A) Seropositive for rheumatoid factor

(B) Splenomegaly (C) Long standing rheumatoid arthritis

(E) Keratoconjunctivitis sicca

- Felty syndrome is a potentially serious condition that is associated with rheumatoid arthritis.

Clinical features-

- Lymphadenopathy
- Vasculitis,
- leg ulcers
- Splenomegaly
- Weight loss
- Recurrent infections
- Skin pigments
- Keratoconjunctivitis sicca
- Seropositive for RF

56. True about Severe Combined Immunodeficiency(SCID):

a) Adenosine deaminase enzyme may be given for treatment

b) Haematopoietic stem cell transplant (HSCT) is curative

c) Most common inheritance is X linked recessive and autosomal recessive

d) Lymphocytosis is present in most cases

e) Increased risk of infection by pneumocystis jiroveci

Correct Answer - A:B:C:E

Answer- A,Adenosine deaminase enzyme... B,Haematopoietic stem... C,Most common inheritance... E,Increased risk of infection...

- The most common form, accounting for 50% to 60% of cases, X-linked and inherited in the autosomal recessive mode.
- Adenosine deaminase deficiency: This the first immunodeficiency disease associated with an enzyme deficiency.
- Persons with SCID have severe infections by *Candida albicans*, *Pneumocystis jiroveci*, *Pseudomonas*, cytomegalovirus, varicella.
- HSC transplantation is the mainstay of treatment.

57. Malignancies associated with AIDS-

a) Primary CNS lymphoma

b) Cervical cancer

c) Kaposi sarcoma

d) Ovarian cancer

e) Endometrial cancer

Correct Answer - A:B:C:D

**Answer- (A) Primary CNS lymphoma (B) Cervical cancer
(C) Kaposi sarcoma (D) Ovarian cancer**

- The neoplastic diseases considered to be AIDS defining conditions are Kaposi's sarcoma non-Hodgkin's lymphoma, and invasive cervical carcinoma, ovarian carcinoma.

58. Malignancy associated with hypercalcemia:

a) Breast cancer

b) Small cell lung cancer

c) Non-small lung cancer

d) Prostate cancer

e) Multiple myeloma

Correct Answer - A:C:D:E

Answer- A,Breast cancer C,Non-small lung cancer D,Prostate cancer E,Multiple myeloma

- Lung carcinoma, breast carcinoma, and multiple myeloma account for more than 50% of all cases of malignancy-associated hypercalcemia.
- Gastrointestinal tumors and prostate carcinoma are less common causes of hypercalcemia.

59. Restrictive lung disease differs from obstructive lung disease by

a) Decreased FVC

b) Decreased FEV1

c) Decreased TLC

d) Decreased RV

e) Decreased FEV1/FVC

Correct Answer - A:B:C:D

Answer- A,Decreased FVC B,Decreased FEV1 C,Decreased TLC D,Decreased RV

PET Result for Restrictive lung disease-

- FEV1- Decreased
- FVC- Decreased
- FEV1/ FVC- Normal or increased
- TLC- Decreased
- DLCO- Decreased in intrinsic restrictive lung disease

60. Fifth cranial nerve palsy causes

a) Weakness of opening of mouth

b) Weakness of closure of mouth

c) Loss of corneal reflex

d) Loss of lacrimal reflex

e) Loss of taste sensation from anterior 2/3 of tongue

Correct Answer - A:B:C:D

Answer- A,Weakness of opening of mouth B,Weakness of closure of mouth C,Loss of corneal reflex D,Loss of lacrimal reflex

- Opening of mouth is caused by both lateral pterygoid --> Supplied by mandibular branch of trigeminal nerve.
- .. One side injury to trigeminal nerve causes weakness of opening of mouth and deviation of jaw to affected side.
- ?. Both side palsy causes weakness of opening of mouth.
- Corneal reflex and lacrimal reflex pathway involve trigeminal nerve.
- Corneal reflex - Afferent limb is formed by ophthalmic nerve and efferent limb is facial nerve.

61. Patient came with complaints of Polydipsia, hypercalciurea, nephrolithiasis, metabolic alkalosis. Possible cause is

a) Bartters syndrome

b) Gittlemans syndrome

c) Addisons disease

d) Chronic diuretic use

e) None

Correct Answer - A

Answer- A. Bartters syndrome

- Bartter syndrome is an autosomal recessive disorder caused by mutation in gene coding for basolateral chloride channel (ClC-kb). There is loss of sodium, chloride, potassium and calcium in urine.
- The major clinical findings are hyponatremia, hypokalemia, polyurea, polydipsia, metabolic alkalosis, normal to low
- BP, hypomagnesemia (only in some patients), hypochloremia, hypercalciuria (causing nephrocalcinosis), and growth

62. All of the following statements about Neurofibromatosis are true, Except:

a) Autosomal Recessive Inheritance

b) Cutaneous neurofibromas

c) Cataract

d) Scoliosis

e) None

Correct Answer - A

Answer- A. Autosomal Recessive Inheritance

- Neurofibromatosis is inherited as an autosomal dominant condition.
- Peripheral Neurofibromatosis (Von Recklinghausen's syndrome)
- Most prevalent type (90%)
- Diagnostic Criteria for NF I
Diagnosed when any two of the following are present
- 1. Six or more café-au-lait macules over 5 mm in greatest diameter in prepubertal individuals and over 15 mm in greatest diameter in post-pubertal individuals.
- 2. Axillary or inguinal freckling
- 3. Two or more iris Lisch nodules
- 4. Two or more neurofibromas or one plexiform neurofibroma
- 5. A distinctive osseous lesion such as sphenoid dysplasia or cortical thinning of long bone, with or without pseudoarthrosis. 6. Optic gliomas.
- 6. A first degree relative with NFI whose diagnosis was based on the aforementioned criteria.
- Scoliosis is the most common orthopaedic manifestation NFI.

63. True about ECG findings of ventricular premature beat is/are

a) Increase R-R interval

b) ST segment depression

c) ST segment elevation

d) T wave inversion

e) Obsured P wave

Correct Answer - B:C:D:E

Answer- B,ST segment depression C,ST segment elevation D,T wave inversion E,Obsured P wave

ST-T wave

When QRS complex upight

- S-T segment is depressed and convex upwards
- T wave is inverted

When QRS complex downward

- S-T segment is elevated and concave upwards
- T wave is upright

64. Vascular changes of malignant hypertension is are -

a) Hyaline arteriosclerosis

b) Necrotizing arteriolitis

c) Hyperplastic arteriosclerosis

d) Aortic dissection

e) Onion skinning

Correct Answer - B:C:D:E

Answer- (B) Necrotizing arteriolitis (C) Hyperplastic arteriosclerosis (D) Aortic dissection (E) Onion skinning
Hypertension is associated with two forms-

1. Hyaline arteriosclerosis-

- It is characteristic of benign hypertension.

2. Hyperplastic arteriosclerosis

- It is characteristic of malignant hypertension
- Onion skinning
- There is mucinous intimal thickening and fibrous intimal thickening.
- There may be accompanied fibrinoid deposits with necrosis of the vessels wall --> fibrinoid necrosis (or necrotizing arteriolitis).

65. Patient comes with mild dyspnea. On ECG monomorphic ventricular tachycardia was found, which of the following drug is to be used

a) Adenosine

b) Lignocaine

c) Amiodarone

d) Propranolol

e) Procainamide

Correct Answer - B:C:D:E

Answer-

B,Lignocaine C,Amiodarone D,Propranolol E,Procainamide

Stable patient with monomorphic VT

1. If left ventricular function is normal-

- IV procainamide or
- IV amiodarone or
- IV sotalol/propranolol/ esmolol
- Lidocaine may also be used

2. Impaired left ventricular function

- IV amiodarone or lidocaine are preferred

66. Not true about kaposi sarcoma -

a) Caused by HHV-8

b) Classical form is associated with HIV

c) Is an angioproliferative disorder

d) Monocentric tumor

e) May involve GIT

Correct Answer - B:D

Answer- (B) Classical form is associated with HIV

(D) Monocentric tumor

- KaPosi sarcoma is multicentric vascular tumor caused by Human herpes virus-8 (HHV-8) also called Kaposi sarcoma associated herpes virus (KSHV).

There are four forms of Kaposi sarcoma-

- 1) Classical form (European or Mediterranean KS)
- There is no association with HIV. There are skin plaques and nodules.
- 2) African form (Endemic form or Equatorial form)
- There is no association with HIV. There is lymphadenopathy
- 3) Transplant associated (immunosuppression associated) KS
- 4) AIDS associated (Epidemic) KS
- It is associated with HIV infection

67. Capnography helps to know the following

a) Correct intubation

b) Pulmonary embolism

c) Adequate ventilation

d) Lung perfusion

e) Significant metabolic change

Correct Answer - A:B:C:D:E

Answer- A,Correct intubation B,Pulmonary embolism C,Adequate ventilation D,Lung perfusion E,Significant metabolic change

- Conditions that affect ET CO₂
- Increased
- Hypoventilation
- Rebreathing
- Malignant hyperthermia,
- Neuroleptic malignant syndrome
- Increased skeletal muscle activity (shivering)
- Hypermetabolism
- Hyperthyroidism & thyroid storm
- Decreased
- Hyperventilation
- Pulmonary embolism
- Hypoperfusion, hypotension, hypovolemia, shock
- Hypothermia

68. Not true regarding mucopolysaccharidosis is/are

a) They are lysosomal diseases

b) All are autosomal dominant except Sanfilippo syndrome

c) They have common skeletal feature: Dysostosis multiplex

d) Hurler syndrome is due to deficiency of Iduronate sulfatase

e) Morquio syndrome [IV] is due to deficiency of Beta-galactosidase

Correct Answer - B:D

Answer- B,All are autosomal dominant except Sanfilippo syndrome D,Hurler syndrome is due to deficiency of Iduronate sulfatase

- Mucopolysaccharidosis (MPS) represent a heterogenous group of inheritable lysosomal storage diseases in which the accumulation of undegraded glycans leads to progressive damage of affected tissues.
- Hurler (IH) syndrome- Alpha L-iduronidase
- Corneal clouding, dysostosis multiplex, organomegaly; heart disease, mental retardation
- Sanfilippo syndrome- Autosomal recessive.
- Morquio IV syndrome- Beta-galactosidase, Galactose-6- sulfatase
- Maroteaux-Lamy syndrome- N-acetylgalactosamine (Dysostosis multiplex)

69. Early diastolic murmur is seen in which condition(s) -

a) Mitral stenosis

b) Tricuspid stenosis

c) Aortic regurgitation

d) Pulmonary regurgitation

e) Atrial myxoma

Correct Answer - C:D

Answer- (C) Aortic regurgitation (D) Pulmonary regurgitation

- Aortic regurgitation- The murmur is low intensity, high-pitched, best heard over the left sternal border or over the right second intercostal space.
- An Austin Flint murmur is usually associated with significant aortic regurgitation.
- Pulmonary regurgitation- Pulmonary regurgitation is most commonly due to pulmonary hypertension (Graham- Steell murmur)
- Left anterior descending artery stenosis- This murmur, also known as Dock's murmur.

70. Continuous murmur is seen in -

a) Patent ductus arteriosus

b) Tetralogy of Fallot

c) Pregnancy

d) Coarctation of aorta

e) Ventricular septal defect

Correct Answer - A:C:D

Answer- (A) Patent ductus arteriosus (C) Pregnancy

(D) Coarctation of aorta

- Common Causes of continuous murmurs
- Systemic arteriovenous fistula (congenital /acquired)
- Coronary arteriovenous fistula
- Anomalous origin of Left coronary artery from pulmonary artery
- Communication between sinus of valsalva and right side of heart (i.e. Ruptured sinus of valsalva into right side of heart)
- Coarctation of Aorta : Continuous murmur in the back
- Patent Ductus Arteriosus (PDA)
- Surgically created shunts e.g. Blalock-Tausig shunt
- Mammary souffle (pregnancy)

71. Drugs used in bladder/urinary incontinence

a) Oxybutynin

b) Tolterodine

c) Trospium

d) Neostigmine

e) Demecarium

Correct Answer - A:B:C

Answer- A,Oxybutynin B,Tolterodine C,Trospium

- Selective M3 antagonists- Oxybutynin, darifenacin, Tolterodine
- Nonselective antagonist- Trospium, Propiverine
- Tricyclic antidepressant- Imipramine

72. Milk-alkali syndrome is associated with -

a) High PTH

b) Hypercalcemia

c) Metabolic acidosis

d) Elevated creatinine

e) Hyperphosphatemia

Correct Answer - B:D:E

Answer- (B) Hypercalcemia (D) Elevated creatinine

(E) Hyperphosphatemia

The syndrome is characterized by -

1. Hypercalcemia
2. Hyperphosphatemia
3. Metabolic alkalosis
4. Metastatic calcification
5. Progressive renal failure (increased, BUN and creatinine)

73. Which of the following is/are included in the management of stress incontinence

a) Botulinum toxin

b) Kelly procedure

c) Anticholinergic

d) Urethropexy

e) Imipramine

Correct Answer - B:C:D:E

Answer- B,Kelly procedure C,Anticholinergic D,Urethropexy E,Imipramine

There are 4 types of treatment-

1. Behavior changes
2. Medicine
 - Anticholinergic medicines help relax the muscles of the bladder.
 - Antimuscarinic drugs block bladder contractions.
 - Imipramine, an antidepressant, helps relax bladder muscles.
3. Pelvic floor muscle training
4. Surgery
 - Anterior vaginal repair (anterior colporrhaphy or Kelly procedure) helps restore weak and sagging vaginal walls.
 - Artificial urinary sphincter
 - Bulking injections make the area around the urethra thicker.
 - Burch urethropexy and Marshall-Marchetti-Krantz (MMK) procedure

74. Primaquine sensitivity is seen in anemia with following enzyme deficiency except

a) Pyruvate dehydrogenase

b) Hexokinase

c) Glucose 6 phosphate dehydrogenase

d) Glucose 6 phosphate

e) None

Correct Answer - A:B:D

Answer- A,Pyruvate dehydrogenase B,Hexokinase D,Glucose 6 phosphate

- It is active on pre and exo-erythrocytic stage. (Primaquine is the only antimalarial which is active on exoerythrocytic stage). It acts by interfering mitochondrial function.
- Those with G-6-PD deficiency are highly sensitive and hemolytic anaemia can occur.
- Therefore it should be avoided in pregnancy as fetus with G6PD deficiency may develop hemolytic anemia.

75. Solute induced diuresis is characterized by -

a) Polyuria

b) Decreased urine osmolality

c) Urine: Plasma osmolality > 0.7

d) Osmotic clearance > 3 ml/min

e) Urine output > 3 L/day

Correct Answer - A:C:D:E

Answer- (A) Polyuria (C) Urine: Plasma osmolality > 0.7

(D) Osmotic clearance > 3 ml/min (E) Urine output > 3 L/day

- Urine-to Plasma osmolality ratio > 0.7
- Osmotic clearance > 3 mL/min
- Polyuria \rightarrow Urine osmolality (> 300 mosmol) \rightarrow Solute diuresis \rightarrow Glucose, mannitol, radiocontrast, urea (from high protein feeding) medullary cystic diseases, resolving ATN, or obstruction, diuretics.

76. Red color of urine is caused by

a) Aniline dye

b) Beet root ingestion

c) Rifampicin

d) Penol intake

e) Alkaptonuria

Correct Answer - A:B:C

Answer- A,Aniline dye B,Beet root ingestion C,Rifampicin

- Hematuria
- Porphyria
- Serratia marcescens
- Aniline dyes
- Ingestion of blackberries
- Ingestion of beetroot
- Phenolphthaliene
- Phenytoin
- Rifampin (red brown orange)
- Pyridium

77. Which of the following is/are feature(s) of hypomagnesemia

a) Tremors

b) Improvement seen with calcium supplementation

c) Atheroid movements

d) Seizure

e) Bradycardia

Correct Answer - A:B:C:D

Answer- (A) Tremors (B) Improvement seen with calcium supplementation (C) Atheroid movements (D) Seizure

Clinical features are mostly:

1. Neuromuscular & CNS hyperirritability: Tetany, Seizura, tremor, muscle weakness, ataxia, nystagmus, vertigo, atheroid movement, depression, irritability, delirium and psychosis.
2. Cardiac arrhythmias : Sinus tachycardia, other supraventricular tachycardia, and ventricular arrhythmias.

78. Components of APACHE-11 score include(s)-

a) Age

b) Glassgow comma scale

c) PaO₂

d) Alanine aminotransferase (ALT)

e) Serum lactate

Correct Answer - A:B:C

Answer- A,Age B,Glassgow comma scale C,PaO₂

- APACHE II score includes Age, GCS, Physiological parameters (BP, Respiratory Rate, PaO₂) and chronic medical conditions.
- APACHE II SCORE (Acute Physiological And Chronic Health Evaluation System)
- The APACHE II scoring system is the most commonly used severity of illness scoring system in North America
- The APACHE II score is recorded as the sum of the Acute physiology score (Vital signs, oxygenation, laboratory values), GCS, Age and Chronic health points as detailed in the following table.

79. Which of the following statement(s) is/are true about myasthenia Gravis with muscle-specific tyrosine kinase (MuSK) antibodies than anti-AChR Ab -

a) Disease onset is earlier with female predominance

b) Neck and facial muscle weakness are more common

c) More proximal muscle involvement

d) Associated with thymic hyperplasia

e) Poor response with acetylcholine esterase (AChE) inhibitors

Correct Answer - A:B:C:E

Answer- (A) Disease onset is earlier with female predominance

(B) Neck and facial muscle weakness are more common

(C) More proximal muscle involvement (E) Poor response with acetylcholine esterase (AChE) inhibitors

Features are-

1. Onset is earlier with female predominance
2. Thymus histology is usually normal
3. Selective facial, bulbar neck or respiratory muscle weakness
4. Involvement of proximal muscles
5. Relative sparing of ocular muscles
6. Poor response to acetylcholinesterase inhibitors (anticholinesterase)

80. Clinical presentation of pituitary apoplexy include(s) all except -

a) Ophthalmoplegia

b) Visual impairment

c) Fever

d) Severe headache

e) Hypertension

Correct Answer - E

Answer- E. Hypertension

1. Severe hypoglycemic
2. Severe headache (usually retro orbital)
3. Impaired consciousness
4. Fever
5. Visual disturbances (visual field defect, visual acuity)
6. Ophthalmoplegia (ocular paresis) → Causing diplopia
7. Hypotension & shock
8. Nausea/vomiting
9. Meningeal sign

81. True about ventilator associated pneumonia (VAP)-

a) 2nd most common nosocomial infection in the intensive care unit

b) Colonization of the pharynx with bacteria is risk factor

c) Highest risk occur in the first 5 days

d) Gastric acid may play a role in protection against nosocomial pneumonias

e) Develops only after 1 week on mechanical ventilation

Correct Answer - A:B:C:D

Answer- (A) 2nd most common nosocomial infection in the intensive care unit (B) Colonization of the pharynx with bacteria is risk factor (C) Highest risk occur in the first 5 days (D) Gastric acid may play a role in protection against nosocomial pneumonias

- Ventilator associated pneumonia is 2nd most common nosocomial infection after urinary tract infection.
- Ventilator-associated pneumonia (VAP) is pneumonia that develops 48 hours or longer after mechanical ventilation is given by means of an endotracheal tube or tracheostomy.
- VAP results from the invasion of the lower respiratory tract and lung parenchyma by microorganism.
- Risk for VAP is greatest during the first 5 days of mechanical ventilation.
- Early onset VAP is defined as pneumonia that occurs within 4 days.
- Gastric acid may play a role in protection against nosocomial

pneumonias.

82. Feature(s) of vitamin A toxicity include(s) -

a) Hypercalcemia

b) Yellow skin

c) Anorexia

d) Poor wound healing

e) Papilledema and hepatomegaly

Correct Answer - A:B:C:E

Answer- (A) Hypercalcemia (B) Yellow skin (C) Anorexia (E) Papilledema and hepatomegaly

- Hypervitaminosis A can lead to rupture of lysosomal membrane.
- Acute toxicity- Pseudotumour cerebri (headache, dizziness, vomiting, drowsiness, blurred vision)
- Chronic toxicity- anorexia, weight loss, nausea, bone and joint pain, bone abnormalities and bony swelling.

83. Which of the following dyads are correct

a) Pulsus paradoxus-aortic regurgitation

b) Pulsus bisferiens- mitral stenosis

c) Water-hammer pulse-aortic regurgitation



d) Pulsus parvus et tardus - aortic stenosis




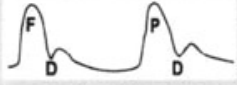
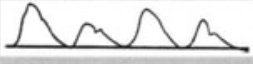
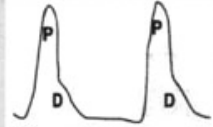

e) Collapsing pulse - aortic regurgitation

Correct Answer - C:D:E

Answer- C,Water-hammer pulse-aortic regurgitation D,Pulsus parvus et tardus - aortic stenosis E,Collapsing pulse - aortic regurgitation

Arterial & Venous Pulses

Types of Pulses		
Type	Character	Disease
Pulsus parvus/Hypokinetic pulse 	Small weak pulse, a narrow pulse pressure, and increased peripheral vascular resistance	Hypovolemia Left ventricular failure Restrictive pericardial disease Mitral valve stenosis Aortic stenosis
Pulsus tardus (Pulsus parvus-et-tardus) 	Slow rising pulse with delayed systolic peak	Severe aortic valve stenosis

<p>Hyperkinetic</p> 	<p>Large, bounding, rapid rise, wide pulse pressure</p>	<p>Complete Heart Block Hyper dynamic circulatory state (Anxiety, Anemia, Exercise, Fever, Beri beri) Patent ductus arteriosus Peripheral AV fistula Aortic & Mitral regurgitation Ventricular Septal Defect</p>
<p>Pulsus paradoxus/Pulsus normalis aggregans</p> 	<p>Decrease in Systolic pressure > 10 mm Hg during inspiration</p>	<p>Cardiac tamponade Chronic constrictive pericarditis (sometimes) Emphysema Bronchial asthma (Severe) SVC obstruction</p>
<p>Reversed pulsus paradoxus</p>	<p>Increase in systolic pressure during inspiration</p>	<p>Hypertrophic Obstructive Cardiomyopathy (HOCM), IPPV</p>
<p>Pulsus Bisfriens (Checked in radial artery)</p> 	<p>2 systolic peaks</p>	<p>Severe Aortic regurgitation Combined aortic stenosis & severe aortic regurgitation HOCM</p>
<p>Dicrotic pulse</p> 	<p>1 systolic & 1 diastolic peak</p>	<p>Dilated cardiomyopathy LVF Cardiac tamponade Typhoid Dehydration</p>
<p>Pulsus alternans (Radial artery)</p> 	<p>Alternate strong & weak beat with regular rhythm</p>	<p>Severe Left ventricular functional impairment (e.g. Acute M.I) may occur in paroxysmal tachycardia, Toxic myocarditis for several beats following a premature beat Aortic regurgitation</p>
<p>Water hammer pulse/Collapsing/Corrigan's</p> 	<p>It is an extreme form of the hyperkinetic pulse. Large bounding pulse associated with increased stroke volume & decreased peripheral vascular resistance</p>	
<p>Pulsus bigeminus</p> 	<p>Normal beat followed by premature beat followed by compensatory pause occurring in rapid succession resulting in alteration in strength of pulse (like pulsus alternans however in pulsus alternans there is no compensatory pause)</p>	<p>Digitalis toxicity</p>

84. Neurofibromatosis type 1 is/are associated with -

a) Café-au-lait spots

b) Cataracts

c) Axillary freckling

d) Facial nerve palsy

e) Optic nerve meningioma

Correct Answer - A:C

Answer- (A) Café-au-lait spots (C) Axillary freckling

- Features of Neurofibromatosis 1 are: cafe au lait spots, neurofibromas or plexiform neuroma, freckling, optic glioma and Lisch nodules.

85. Exudative pleural effusion is/are seen in all except -

a) Cirrhosis

b) Carcinoma

c) Bacterial pneumonia

d) Tuberculosis

e) Congestive heart failure

Correct Answer - A:E

Answer- (A) Cirrhosis (E) Congestive heart failure

Collagen vascular disease -

- Rheumatoid arthritis
- SLE
- Drug induced lupus
- Sjogren's syndrome
- Wegener's granulomatosis
- Churg strauss syndrome

Infectious disease-

- Bacterial infection
- Tuberculosis

Gastrointestinal infections-

- Esophageal perforation
- Pancreatic disease
- Intra abdominal abscesses
- Diaphragmatic hernia

Neoplastic-

- Metastatic

- Mesothelioma

86. Which of the following is/are true about jugular venous pressure (JVP) waveform

a) a wave occur just after electrocardiographic P wave

b) Prominent x and y descents is seen in constrictive pericarditis

c) Canon a waves occur in atrioventricular (AV) dissociation

d) v wave occur in early systole of cardiac cycle

e) Prominent x descent but an absent y descent is seen in cardiac temponade

Correct Answer - A:B:C:E

Answer- A,a wave occur just after electrocardiographic P wave B,Prominent x and y descents is seen in constrictive pericarditis C,Canon a waves occur in atrioventricular (AV) dissociation E,Prominent x descent but an absent y descent is seen in cardiac temponade

- Atrial contraction produces the first pressure peak called the a wave.
- The c wave is the transmitted manifestation of the rise in atrial pressure produced by the bulging of the tricuspid valve into the atria during isovolumetric ventricular contraction.
- The v wave mirrors the rise in atrial pressure before the tricuspid valve opens during diastole.
- a-x descent- Constrictive pericarditis, Cardiac temponade, Restrictive cardiomyopathy
- v - y descent- Tricuspid regurgitation, Constrictive pericarditis

87. Treatment of acute Hyperleukocytosis includes:

a) Hydroxyurea

b) Isotretinoin

c) Leukapheresis

d) Vincristine

e) All

Correct Answer - A:C:D

Answer- (A) Hydroxyurea (C) Leukapheresis (D) Vincristine

- Leukapheresis is the treatment of choice.
- In patients with AML, hydroxyurea should be started.
- In ALL patients, higher than 200, 000/mm³ patients may be treated with vincristine, steroids, or both.

88. True about Swan-Ganz catheter:

a) Measures right atrial pressure

b) Measures left ventricular filling pressure

c) Measure PCWP

d) Inserted through left subclavian vein

e) Inserted directly in Right atrium

Correct Answer - A:B:C:D

Answer- (A) Measures right atrial pressure (B) Measures left ventricular filling pressure (C) Measure PCWP (D) Inserted through left subclavian vein

- Continuous cardiac output monitoring.
- Central temperature monitoring
- Measurement of pulmonary artery pressure (can also measure RA and RV pressures during insertion)
- Measurement of mixed venous saturations
- Estimation of diastolic filling of left heart (normal PCWP 2-12mmHg)

89. All are true about chronic fatigue syndrome except:

a) For diagnosis, duration of fatigue should be atleast 6 month

b) Impaired memory and concentration may present

c) Fatigue relieved by rest

d) Physical examination shows no abnormalities

e) Cognitive behavioral therapy is useful for treatment

Correct Answer - C

Answer- C. Fatigue relieved by rest

- Fatigue lasts for at least 6 months
- Fatigue is of new or definite onset.
- Fatigue is not the result of an organic disease or of continuing exertion
- Fatigue is not alleviated by rest.
- Fatigue symptoms are soar throat, tender cervical or axillary lymph nodes, muscle pain, pain in several joints, headaches, malaise

90. Which of the following is/are used for assessment of carbohydrate malabsorption:

a) Schilling test

b) Steatorrhoea

c) D-xylose test

d) Glucose test

e) Urine test

Correct Answer - C

Answer- C. D-xylose test

- D-xylose absorption test is the most commonly employed test for carbohydrate absorption - Harrison
- An endoscopic mucosal biopsy is the more specific test and is now considered essential.
- D-xylose is a carbohydrate that is absorbed almost exclusively in the proximal small bowel without the help of pancreatic enzymes. A positive D-xylose test indicates malabsorption due to intestinal mucosal disease and thus be used as a test for assessment of mucosal function.

91. All are true about primary aldosteronism except:

- a) One of the most common cause of secondary hypertension
- b) Hyperkalemia
- c) Sodium retention
- d) Ratio of plasma aldosterone to plasma renin activity (PA/ PRA) is a useful screening test
- e) Tetany may occur

Correct Answer - B

Answer- B. Hyperkalemia

- Primary hyperaldosteronism is one of the most common cause of secondary hypertension.
- Excessive levels of aldosterone cause sodium retention and potassium excretion, with resultant hypertension and hypokalemia.
- Hypokalemia can cause weakness, paresthesias, visual disturbances and tetany.
- The diagnosis of primary hyperaldosteronism is confirmed by the elevated level of aldosterone and depressed levels of renin in the circulation (low PRA).
- The ratio of plasma aldosterone to plasma renin activity (PA/PRA) is a useful screening test.

92. All are true about acute pericarditis except:

a) Pain radiate to left shoulder & arm

b) Widespread elevation of the ST segments, often with upward concavity & then return to baseline

c) Pain relieved by lying supine & intensified by sitting up and leaning forward

d) Corticosteroid relieves symptoms

e) High-pitched scratching or crunching noise may heard in auscultation

Correct Answer - C

Answer- C. Pain relieved by lying supine & intensified by sitting up and leaning forward

- The characteristic pain of pericarditis is retrosternal, radiates to the shoulders and neck (retrosternal, and left precoridal).
- Characteristically, pericardial pain may be relieved by sitting up and leaning forward and is intensified by lying supine.
- A pericardial friction rub is a high-pitched superficial scratching or crunching noise, produced by movement of the inflamed pericardium.
- There are four stages of ECG changes in the evolution of acute pericarditis.
- In stage 1, there is widespread elevation of the ST segments, often with upward concavity, involving two or three standard limb leads and V2 to V6, with reciprocal depressions only in aVR and sometimes V1, as well as depression of the PR segment Usually

there are no significant changes in QRS complexes.

- In stage 2, after several days, the ST segments return to normal, and only then, or even later, do the T waves become inverted (stage 3).
- Ultimately, weeks or months after the onset of acute pericarditis, the ECG returns to normal in stage 4.
- The pain is usually relieved by aspirin.

93. All are true about hepatorenal syndrome except:

a) Creatinine level raised

b) Albumin infusion given

c) Liver transplantation improves renal functions

d) May occur in cirrhosis

e) Low dose dopamine infusion is very effective

Correct Answer - E

Answer- E. Low dose dopamine infusion is very effective

- The hepatorenal syndrome (HRS) is a form of functional renal failure without renal pathology that occurs in about 10% of patients with advanced cirrhosis or acute liver failure.
 - There are marked disturbances in the arterial renal circulation in Patients with HRS.
 - Type I HRS- a significant reduction in creatinine clearance within 1-2 weeks of presentation.
 - Type 2 HRS- an elevation of serum creatinine level.
 - HRS is often seen in patients with refractory ascites.
- Treatment-**
- dopamine or prostaglandin analogues were used as renal vasodilating medications.
 - Patients are treated with midodrine, an alpha-agonist, along with octreotide and intravenous albumin.
 - The best therapy for HRS is liver transplantation.

94. Which of the following markers suggest likely primary cancer in carcinoma of unknown primary(CUP):

a) CK7 is found in tumors of the lung, ovary, endometrium & breast

b) CK20+/CDX-2 +/CK7-, suggestive of lower gastrointestinal cancer

c) Calretinin & WT-1 for melanoma

d) Chromogranin, synaptophysin & CD56 are marker of neuroendocrine primary

e) None

Correct Answer - A:B:D

Answer- A,CK7 is found in tumors of the lung, ovary, endometrium & breast B,CK20+/CDX-2 +/CK7-, suggestive of lower gastrointestinal cancer D,Chromogranin, synaptophysin & CD56 are marker of neuroendocrine primary

- CK7, CK20, thrombomodulin- Urothelial
- CK7, CK20, CDX-2, carcinoembryonic antigen (CEA)- intestinal
- Calretinin, WT-1- Mesothelioma
- Chromogranin, synaptophysin, CD56- Neuroendocrine

95. Feature(s) of Bulbar palsy is/are:

a) Dysphagia

b) Absent jaw jerk

c) Absent gag reflex

d) Tongue atrophy

e) Tongue wasting & fasciculations

Correct Answer - A:B:C:D:E

Answer- (A) Dysphagia (B) Absent jaw jerk (C) Absent gag reflex (D) Tongue atrophy (E) Tongue wasting & fasciculations

- Paralysis or loss of function supplied by cranial nerve arising from bulb (old name of medulla oblongata).
- Affected CN are 9, 10, 11 & 12th.
- Tongue-flaccid, wasted, fasciculation may be present.
- Involvement of IX & X CN: Nasal twang, nasal regurgitation, hoarse voice, dysphagia, loss of sensation over 2/3 tongue,
- weak cough, absent gag reflex & weak cough reflex.
- In u/l lesion, there is never a complete paralysis of deglutition or of articulation.

96. Which of the following is/are feature(s) of acute interstitial nephritis:

a) Eosinophiluria

b) Peripheral eosinophilia

c) WBC cast

d) Gross haematuria

e) Significant proteinuria

Correct Answer - A:B:C

Answer- (A) Eosinophiluria (B) Peripheral eosinophilia (C) WBC cast

- Peripheral eosinophilia can occur, especially with drug induced.
- Microscopic hematuria is invariably present.
- Urinalysis can reveal white blood cell, granular or hyaline cast.
- The presence of urine eosinophils is neither sensitive or specific.
- Proteinuria can be a feature, particularly in NSAIDS-induced interstitial nephritis.

97. Which of the following is true about medication overuse headache:

a) Not associated with triptanuse

b) Restriction of analgesics should be done

c) Opioid is mainly responsible

d) Preventive therapy should be encouraged after stopping/
reducing analgesic

e) None

Correct Answer - B:C:D

Answer- (B) Restriction of analgesics should be done

(C) Opioid is mainly responsible (D) Preventive therapy should be encouraged after stopping/ reducing analgesic

- medications that are the most common culprits are compound analgesia (particularly codeine and other opiate containing preparations) and triptans, and MOH is usually associated with use on more than 10-15 days per month.
- Management is by withdrawal of the responsible analgesics
- Migraine prophylactics may be helpful in reducing the rebound headaches.

98. Which is true about thrombolysis in acute ischemic stroke:

- a) Most effective if used within 3 hour
- b) Contraindicated in h/o prior intracranial haemorrhage
- c) Use of heparin within 48 hr is not a contraindication
- d) Contraindicated if platelets <100, 000per microliter
- e) All

Correct Answer - A:B:D

Answer- A,Most effective if used within 3 hour B,Contraindicated in h/o prior intracranial haemorrhage D,Contraindicated if platelets <100, 000per microliter

- Intravenous thrombolysis with recombinant tissue plasminogen activator (rt-PA) increases the risk of haemorrhagic transformation of the cerebral infarct with potentially fatal results. However, if it is given within 4.5 hours of symptom onset to carefully selected patients, the haemorrhagic risk is offset by an improvement in overall outcome.

99. High anion gap metabolic acidosis is/are present in:

a) Asthma

b) COPD with CO₂ retention

c) Poorly controlled diabetes

d) Renal tubular acidosis

e) All

Correct Answer - C

Answer- C. Poorly controlled diabetes

- Ketoacidosis
- Diabetic
- Alcoholic
- Starvation

100. Extrathyroid feature of hypothyroidism includes:

a) Pretibial myxedema

b) Carpal tunnel syndrome

c) Bradycardia

d) Thyroid acropathy

e) Peripheral edema

Correct Answer - B:C:E

Answer- (B) Carpal tunnel syndrome (C) Bradycardia (E) Peripheral edema

- Common symptoms are- Weight gain, Fatigue, Dry skin and hair, Menorrhagia, Hoarseness, coldness
- CVS- Bradycardia, Myxoedema, hypertension
- Nervous system- Carpal tunnel syndrome,
- Facial features- purplish lips, malar flush, periorbital oedema
- Yellowing of skin occurs due to accumulation of increase carotene.

101. True about McCune-Albright syndrome:

a) Occur in children & during puberty

b) Precocious puberty in female

c) Involve long bone of limb

d) Associated with hypothyroidism

e) All

Correct Answer - A:B:C

Answer- A,Occur in children & during puberty B,Precocious puberty in female C,Involve long bone of limb

- McCune-Albright syndrome (MAS) is characterized by the triad of polyostotic fibrous dysplasia, cafe au lait skin pigmentation, and peripheral precocious puberty.
- Albright syndrome is precocious sexual development, which occurs most often in girls.
- The average age at onset in affected girls is about 3 yr and puberty.

102. Increased portal vein pressure & normal hepatic vein pressure can be seen in all except:

a) Alcoholic cirrhosis

b) Alcoholic hepatitis

c) Budd Chiari syndrome

d) Portal vein thrombosis

e) Inferior vena cava obstruction

Correct Answer - C:E

Answer- C,Budd Chiari syndrome E,Inferior vena cava obstruction

- "Budd-Chiari syndrome (Obstruction of hepatic veins at any site from efferent vein of the lobule to the entry of the IVC into right atrium.
- Posthepatic- Budd-Chiari syndrome, Inferior vena caval webs

103. True about multiple sclerosis:

a) Corticosteroids are used in acute attack

b) Intravenous Immunoglobulin is effective mode of treatment

c) IFN α - used in recurrence

d) IFN-P- used in recurrence

e) Plasmapheresis may be used in severe relapses

Correct Answer - A:D:E

Answer- (A) Corticosteroids are used in acute attack (D) IFN-P- used in recurrence (E) Plasmapheresis may be used in severe relapses

- Main drugs used for treating multiple sclerosis include Interferon- β 1a
- Frequency of relapses in multiple sclerosis patient is decreased by beta-interferon/glatiramer.
- Newer drug approved for relapse in multiple sclerosis patients is Fingolimod.
- Glucocorticoids are used to manage either first attacks or acute exacerbations.
- Natalizumab is a monoclonal antibody against α 4 subunit of α 4 β 1 integrin on lymphocytes, useful in treating multiple sclerosis.
- It reduces the relapse rate when given intravenously once monthly.

104. Which of the following statement(s) is/are regarding American Heart Association(AHA) Guideline-2015 for cardiopulmonary resuscitation(CPR) & Emergency cardiovascular care(ECC):

a) Chest compression: ventilation Compression ventilation ratio without advanced airway – rate 30:2 irrespective of rescuer & age of patient

b) Compression rate- at least 100/min

c) Failure to achieve an ETCO₂ of 10 mm Hg by waveform capnography after 20 minutes of resuscitation has been associated with an extremely poor chance of return of spontaneous circulation(ROSC)

d) Limit interruptions in chest compressions to less than 10 seconds

e) None

Correct Answer - C:D

Answer- C,Failure to achieve an ETCO₂ of 10 mm Hg by waveform capnography after 20 minutes of resuscitation has been associated with an extremely poor chance of return of spontaneous circulation(ROSC) D,Limit interruptions in chest compressions to less than 10 seconds

- Compression rate is modified to a range of 100 to 120/min.
- Compression ventilation ratio without advanced airway- 1 or 2 rescuers 30: 2

- Failure to achieve an ETCO₂ of 10 mm Hg by waveform capnography after 20 minutes of resuscitation has been associated with an extremely poor chance of ROSC and survival.
- The clarified recommendation for chest compression depth for adults is at least 2 inches (5 cm) but not greater than 2.4 inches (6 cm) .

105. Hain test is/are used for:

a) Detection of INH resistance only

b) Detection of rifampicin resistance only

c) Detection of both rifampicin & INH resistance

d) Detection of resistance of all drugs of first line ATT

e) All

Correct Answer - C

Answer- C. Detection of both rifampicin & INH resistance

- "Genotype MTBDR plus ("HAIN test") qNAA and hybridization-based test use immobilized DNA probes on nitrocellulose membranes (line probe assay LPA) & Colorimetric change indicates hybridization.
- Identifies M.tuberculosis and detects Rif & INH resistance in a day.

106. True about Pulmonary artery catheterization (Swan-Ganz catheter placement):

a) Measures right atrial pressure

b) Measures left ventricular filling pressure

c) Measure PCWP

d) Inserted through left subclavian vein

e) Measures central venous pressure

Correct Answer - A:B:C:D

Answer- (A) Measures right atrial pressure (B) Measures left ventricular filling pressure (C) Measure PCWP (D) Inserted through left subclavian vein

- Continuous cardiac output monitoring
- Central temperature monitoring
- Measurement of pulmonary artery pressure (can also measure RA and RV pressures during insertion)
- Measurement of mixed venous saturations.
- Estimation of diastolic filling of left heart
- It measures the pressure at three different places: right atrium, pulmonary artery and pulmonary capillaries.

107. Presentation of tabes dorsalis includes:

a) Lancinating pain in leg

b) Loss of proprioception

c) Sensory defect

d) No involvement of bladder & bowel

e) Sensory ataxia

Correct Answer - A:B:C:E

**Answer- (A) Lancinating pain in leg (B) Loss of proprioception
(C) Sensory defect (E) Sensory ataxia**

- Symptoms are
- Ataxic wide-based gait
- Foot drop
- Paresthesia;
- Bladder disturbances;
- Impotence;
- Areflexia; and
- Loss of positional, Deep-pain, and Temperature sensations.
- Trophic joint degeneration (Charcot's joints) can result from loss of pain sensation.
- Optic atrophy occurs in tabes.

108. True about Prinzmetal's angina:

a) May present at rest

b) Occurs due atherosclerotic obstruction of coronary arteries

c) Smoking is a risk factor

d) Nitrates are used for treatment

e) CCBs are used for treatment

Correct Answer - A:C:D:E

Answer- (A) May present at rest (C) Smoking is a risk factor (D) Nitrates are used for treatment (E) CCBs are used for treatment

- This syndrome is due to focal spasm of an epicardial coronary artery, leading to severe myocardial ischemia leading to severe myocardial ischemia.
- The right coronary artery is the most frequent site, followed by the left anterior descending coronary artery.
- Acetylcholine released by the parasympathetic system at rest will simply cause contraction of the vascular smooth muscle.
- It usually occurs at rest and is associated with transient ST- segment elevation.
- Etiology
- cigarette smokers
- **Treatment-**
- Nitrates and calcium channel blockers are the main treatments for patients with variant angina.

109. Which of the following is/are true about Revised Jones Criteria 2015 of AHA for diagnosis of acute rheumatic fever -

a) Polyarthrititis in low-risk populations is a major criteria

b) Polyarthralgia in moderate- and high-risk populations is a minor criteria

c) Monoarthrititis in moderate- and high-risk populations is a major criteria

d) Echocardiography with Doppler study should be performed in all cases of confirmed and suspected ARF

e) Echocardiography/Doppler study should be performed to assess whether carditis is present in the absence of auscultatory findings

Correct Answer - A:C:D:E

Answer- (A) Polyarthrititis in low-risk populations is a major criteria (C) Monoarthrititis in moderate- and high-risk populations is a major criteria (D) Echocardiography with Doppler study should be performed in all cases of confirmed and suspected ARF (E) Echocardiography/Doppler study should be performed to assess whether carditis is present in the absence of auscultatory findings

Clinical manifestations and diagnosis

2015 Revised Jones Criteria for diagnosis of Rheumatic Fever

B. Major Criteria

Low-risk populations

Moderate-and high-risk population

Carditis

- Clinical and/or subclinical carditis

Arthritis

- Polyarthrititis

Chorea

Erythema marginatum

Subcutaneous nodules

Carditis

- Clinical and/or subclinical carditis

Arthritis

- Monoarthritis or polyarthrititis
- Polyarthralgia

Chorea

Erythema marginatum

Subcutaneous nodules

C. Minor criteria

Low-risk populations

Polyarthralgia

Fever (>38.5°)

ESR .60 mm in 1^t hour
and/ CRP>3.0 mg/dl

4. Prolonged PR interval, after accounting for age variability (unless carditis is a major criterion) in all population.

Moderate-and high-risk populations

Monoarthralgia

Fever (>38°C)

ESR 30 mm/h and/or CRP >3.0
or mg/dL

110. Feature(s) of increased ICP is/are:

a) Hypotension

b) Decrease HR

c) Increase HR

d) Hypertension

e) Decreased level of consciousness

Correct Answer - B:D:E

Answer- (B) Decrease HR (D) Hypertension (E) Decreased level of consciousness

- Cushing's triad is the triad of widening pulse pressure (rising systolic, declining diastolic), change in respiratory
- Pattern (irregular respirations), and bradycardia. It is sign of increased intracranial pressure, and, it occurs as a result of the Cushing reflex.

111. All are true about Hepatitis E except:

a) May be fatal in pregnant women

b) Caused by non-enveloped, positive-sense, single stranded RNA genomic ,HAV like virus

c) Carrier state is common

d) Majority progress to chronicity

e) Feco-oral transmission

Correct Answer - C:D

Answer- (C) Carrier state is common (D) Majority progress to chronicity

- HEV is transmitted via the faecal-oral route.
- It is caused by non-enveloped, positive-sense, single-stranded RNA genomic, HAV like virus.
- Hepatitis E is a waterborne disease, and contaminated water or food supplies have been implicated in major outbreaks. In general, hepatitis E is a self-limiting viral infection followed by recovery. Prolonged viraemia or faecal shedding are unusual and chronic infection does not occur.
- Occasionally, a fulminant form of hepatitis develops, with overall patient population mortality rates ranging between 0.5 - 4.0%. Fulminant hepatitis occurs more frequently in pregnancy and regularly induces a mortality rate of 20% among pregnant women in the 3rd trimester.
- Since cases of hepatitis E are not clinically distinguishable from other types of acute viral hepatitis, diagnosis is made by blood tests which detect elevated antibody levels of specific antibodies to hepatitis E in the body or by reverse transcriptase polymerase chain

reaction (RT-PCR). Unfortunately, such tests are not widely available.

112. Which of the following cranial nerve is/are involved in Gag reflex :

a) 9

b) 10

c) 11

d) 12

e) 7

Correct Answer - A:B

Answer- (A) 9 (B) 10

- Gag reflex
- Afferent
- Glossopharyngeal nerve
- Efferent
- Vagus nerve

113. Which of the following is/are true about Duchene muscular dystrophy:

a) Mental impairment may present

b) T Serum CK levels

c) Cardiomyopathy may be present

d) Autosomal recessive disorder

e) Onset during puberty

Correct Answer - A:B:C

Answer- (A) Mental impairment may present (B) T Serum CK levels (C) Cardiomyopathy may be present

- Duchenne Muscular Dystrophy: This X-linked recessive disorder sometimes also called pseudohypertrophic muscular dystrophy.
- Age- Before 5 years
- C/F
- Progressive weakness of girdle muscles
- Unable to walk after age 12
- Progressive kyphoscoliosis
- Respiratory failure in 2d or 3d decade
- Cardiomyopathy
- Mental impairment

114. True about acute intermittent porphyria:

a) Occur due to deficiency of enzyme HMB-synthase

b) Uroporphyrin is present in urine

c) Abdominal pain is common symptom

d) T Porphobilinogen in the urine

e) Leukocytosis is often present

Correct Answer - A:B:C:D

Answer- (A) Occur due to deficiency of enzyme HMB-synthase (B) Uroporphyrin is present in urine (C) Abdominal pain is common symptom (D) T Porphobilinogen in the urine

- Deficient enzyme- HMB- synthase
 - Inheritance- Autosomal dominant
 - Abdominal pain, the most common symptom.
 - Cramping, ileus, abdominal distention, and decreased bowel sound.
 - Peripheral neuropathy
 - Abdominal tenderness, fever, and leukocytosis are usually absent or mild
 - Nausea, vomiting, constipation, tachycardia, hypertension, mental symptoms, pain in the limbs, head, neck, or chest;
 - Muscle weakness, sensory loss, dysuria, and urinary retention are characteris
 - Tachycardia, hypertension, restlessness, tremors, and excess sweating are due to sympathetic overactivity.
- Investigation-**
- The diagnosis can be confirmed by demonstrating an increased amount of porphobilinogen in the urine, ALA, Uroporphyrin.

115. Child Pugh A criteria for clinical severity of cirrhosis includes:

a) Bilirubin < 2.0 mg/dL

b) Prothrombin time >70 (% of control)

c) Serum albumin 2.0-3.0 g/dl

d) Presence of encephalopathy

e) Absence of ascites

Correct Answer - A:B:E

Answer- (A) Bilirubin < 2.0 mg/dL (B) Prothrombin time >70 (% of control) (E) Absence of ascites

Parameter	Assign 1 point	Assign 2 points	Assign 3 points
Ascitis	Absent	Slight	Moderate
Bilirubin (mg/dL)	<2	2-3	>3
Albumin (g/dL)	>3.5	2.8-3.5	<2.8
Prothrombin time (second over control) or INR	<4 <1.7	4-6 1.7-2.3	>6 >2.3
Encephalopathy	None	Grade 1-2 (Mild to moderate)	Grade 3-4 (Severe)

116. All are true about Abdominal aneurysm except:

a) Atherosclerosis is the commonest cause

b) Most commonly arises from above the level of renal artery

c) For asymptomatic aneurysms, repair is indicated if the diameter is >5.5 cm

d) Endovascular placement of an aortic stent is use for repair

e) Mostly asymptomatic

Correct Answer - B

Answer- B. Most commonly arises from above the level of renal artery

- 90% of abdominal aortic aneurysm (AAA) of size > 4 cm in diameter is due to atherosclerosis.
- Male are more frequently affected than female.
- The aneurysm most commonly arises below the level of renal artery.

117. A patient diagnosed with cushing's syndrome. Dexamethasone suppression test showed decrease in cortisol levels and corticotrophin-releasing hormone (CRH) administration causes increased cortisol levels. Treatment option(s) for this patient is/are:

a) Adrenalectomy

b) Pituitary irradiation

c) Adrenal gland removal

d) Stereotactic pituitary radiosurgery

e) Surgical removal of ectopic tissue producing ACTH in different organs

Correct Answer - A:B:C:D

Answer- (A) Adrenalectomy (B) Pituitary irradiation (C) Adrenal gland removal (D) Stereotactic pituitary radiosurgery

- Treatment of choice- removal of pituitary corticotrope tumour (transphenoidal approach)
- Pituitary irradiation
- Metyrapone and ketoconazole
- Adrenocortical carcinoma-mitotane

118. In which of the following vasculitis lung involvement does not occur:

a) Eosinophilic granulomatosis with vasculitis

b) Polyarteritis nodosa (PAN)

c) Microscopic polyangiitis

d) Granulomatosis with polyangiitis

e) Bechet syndrome

Correct Answer - B

Answer- B. Polyarteritis nodosa (PAN)

- Microscopic polyangiitis (microscopic polyarteritis, hypersensitivity, or leukocytoclastic vasculitis): This type of necrotizing vasculitis generally affects arterioles, capillaries, and venule.
- Wegener granulomatosis (Granulomatosis with polyangiitis)- is a necrotizing vasculitis characterized by the triad of
 1. acute necrotizing granulomas
 2. necrotizing or granulomatous vasculitis
 3. renal disease in the form of focal necrotizing often crescentic, glomerulitis
- "Churg- Strauss syndrome(allergic granulomatosis and angiitis) is a multisystem diseases with cutaneous involvement gastrointestinal tract bleeding, and renal disease.

119. Drug causing scleroderma is/are:

a) Bleomycin

b) Pentazocin

c) Polyinyl chloride

d) Steroid

e) Tetracycline

Correct Answer - A:B:C

Answer- (A) Bleomycin (B) Pentazocin (C) Polyinyl chloride

- Vinyl chloride, bleomycin, pentazocin, organic solvents, carbidopa, tryptophan, rapeseed oil.

120. A patient of asthma was on inhaled short acting 13-agonist. But there was no significant relief. After that he added low dose of inhaled steroid from last 5 day by MDI, but still not responding. What you will advise him for next line of treatment:

a) Continue inhaled short acting P-agonist

b) Add inhaled long acting 13-agonist

c) Increase dose of inhaled corticosteroid

d) Start oral corticosteroid

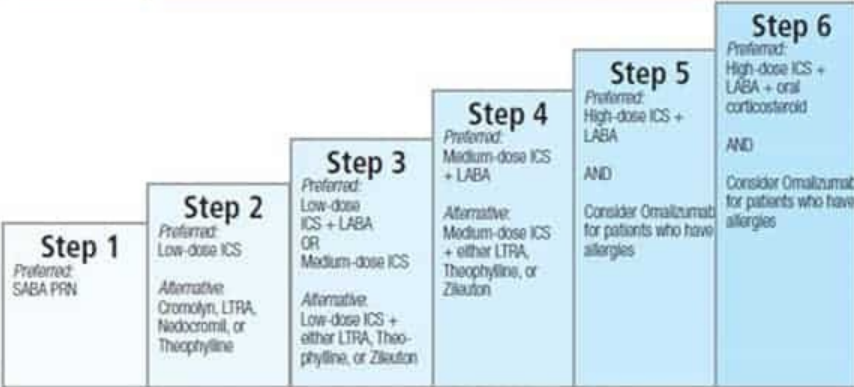
e) Start parenteral corticosteroid

Correct Answer - A:B:C

Answer- (A) Continue inhaled short acting P-agonist (B) Add inhaled long acting 13-agonist (C) Increase dose of inhaled corticosteroid

Intermittent Asthma

Persistent Asthma: Daily Medication
Consult with asthma specialist if step 4 care or higher is required.
Consider consultation at step 3.



Each step: Patient education, environmental control, and management of comorbidities.
Steps 2-4: Consider subcutaneous allergen immunotherapy for patients who have allergic asthma (see notes).

Quick-Relief Medication for All Patients

- SABA as needed for symptoms. Intensity of treatment depends on severity of symptoms: up to 3 treatments at 20-minute intervals as needed. Short course of oral systemic corticosteroids may be needed.
- Use of SABA >2 days a week for symptom relief (not prevention of EIB) generally indicates inadequate control and the need to step up treatment.

↑

Step up if needed.
(first, check adherence, environmental control, and comorbid conditions)

Assess control

Step down if possible
(and asthma is well controlled at least 3 months)

↓

121. Which of the following clinical criteria belongs to HIV stage I :

a) Asymptomatic patient

b) Persistent generalised lymphadenopathy

c) Unexplained chronic diarrhoea for > 1 mth

d) Unexplained persistent fever (> 37.5°C for > 1 mth)

e) Neutropenia

Correct Answer - A:B

Answer- (A) Asymptomatic patient (B) Persistent generalised lymphadenopathy

- World Health Organization (WHO) clinical stage-
- Asymptomatic
- Persistent generalised lymphadenopathy

122. Pulmonary blood flow increased in all except:

a) ASD

b) VSD

c) TOF

d) Transposition of great arteries (TGA)

e) PDA

Correct Answer - C

Answer- (C) TOF

Truncus Arteriosus, complete TGA and TAPVC are associated with increased pulmonary blood flow.

TOF- When the RV outflow obstruction is severe, pulmonary blood flow is reduced marked.

123. Cauda equina is differentiated from conus medullaris by presence of:

a) Ankle jerk may lost

b) Knee jerk may lost

c) Motor changes

d) Bladder & bowel involvement as initial presentation

e) Root pain

Correct Answer - B:C:E

Answer-(B) Knee jerk may lost (C) Motor changes (E) Root pain

Conus Medullaris vs. Cauda Equina Syndromes

	Conus medullaris syndrome	Cauda equina syndrome
Vertebral level	L1-L2	L2-sacrum
Spinal level	Sacral cord segment and roots	Lumbosacral nerve roots
Presentation	Sudden and bilateral	Gradual and unilateral
Radicular pain	Less severe	More severe
Low back pain	More	Less
Motor strength	Symmetrical, less marked hyperreflexic distal paresis of LL, fasciculation	More marked asymmetric areflexic paraplegia, atrophy more common
Reflexes	Ankle jerks affected	Both knee and ankle jerks affected

Sensory	Localized numbness to perianal area, symmetrical and bilateral	Localized numbness at saddle area, asymmetrical, unilateral
Sphincter dysfunction	Early urinary and fecal incontinence	Tend to present late
Impotence	Frequent	Less frequent

124. Which of the following is/are the feature (s) of headache due to increase in intracranial pressure:

a) Increase on supine position

b) Most commonly presents as severe acute headache

c) Pulsatile in nature

d) Throbbing character

e) Analgesics are not very helpful

Correct Answer - A:E

Answer- (A) Increase on supine position (E) Analgesics are not very helpful

"Headache due to intracranial pathologr or raised intracranial tension worsens during coughing straining or adopting the head in low posture.

Generalized headache that is present on waking and improves as the day goes on.

Headache on rising in the morning or nocturnal headache is ako characteristic of obstructive sleep apnea or poorly controlled hypertension.

Corticosteroid are recommended in acute headache due to raised ICP.

125. All are true about use of triptans in migraine except:

a) Used in prophylaxis of migraine

b) Efficacy increased with concomitant use of ergot

c) Can be given for long term where NSAIDS is not effective

d) Given when NSAIDS is not effective

e) None

Correct Answer - A:B:C

Answer- (A) Used in prophylaxis of migraine (B) Efficacy increased with concomitant use of ergot (C) Can be given for long term where NSAIDS is not effective

TriPtans are rapidly effective agent for aborting attacks.

Oral Stimulation of S-HT_{1B/1D} receptors can stop an acute migraine attack.

Triptans are selective 5-HT_{1B/1D} receptor agonists.

126. All are true about renal artery stenosis except:

- a) ACE inhibitors can be used in bilateral renal artery stenosis
- b) ACE inhibitors can be used in unilateral renal artery stenosis
- c) ACE inhibitors are best drug to control DM associated hypertension
- d) Excision & Grafting is treatment of choice
- e) Angioplasty with or without stenting, and surgical bypass used only in refractory cases

Correct Answer - A:D

Answer- (A) ACE inhibitors can be used in bilateral renal artery stenosis (D) Excision & Grafting is treatment of choice

ACE inhibitors are contraindicated in bilateral renal artery stenosis.

ACE inhibitors are useful in renovascular hypertension.

ARF is precipitated by ACE inhibitors in patients with b/l renal stenosis

Atherosclerotic is chronic renal disease accounts for nearly all cases of renal artery stenosis.

Renal angiography is the gold standard for diagnosis.

127. Which of the following causes glomerular proteinuria:

a) DM

b) Amyloidosis

c) Multiple myeloma

d) ACE inhibitors decreases proteinuria

e) All

Correct Answer - A:B:D

Answer- (A) DM (B) Amyloidosis (D) ACE inhibitors decreases proteinuria

Nephrotic syndrome

Membranoproliferative glomerulonephritis, membranous nephropathy

Hepatitis B and C nephropathy, HIV nephropathy

Reflux nephropathy

Amyloidosis

Postinfectious glomerulonephritis, IgA, nephropathy, Henoch-Schonlein nephritis, lupus nephritis, Alport ,syndrome

128. All are true about Chylous pleural effusion except:

a) Stain positive with sudan III

b) Cutoff level of triglyceride for chylous effusion is > 150 mg/dl

c) Cutoff level of triglyceride for chylous effusion is > 50 mg/ dl

d) Milky colour disappears with alkali

e) Milky colour disappears with ether

Correct Answer - B:C

Answer- (B) Cutoff level of triglyceride for chylous effusion is > 150 mg/dl (C) Cutoff level of triglyceride for chylous effusion is > 50 mg/ dl

Pleural fluid- milky white, triglyceride levels > 110 mg/ dL

Chylomicrons is also diagnostic of a chylothorax & can be used as a confirmatory test if the triglyceride levels are equivocal.

On microscopy, fat globule will clear with alkali or ether & will stain with Sudan III.

The most common cause of chylothorax is trauma.

129. Chylous pleural effusion occur in:

a) T. B

b) Malignancy

c) SLE

d) Thoracic duct injury

e) Congestive heart failure

Correct Answer - A:B:D

Answer- (A) T. B (B) Malignancy (D) Thoracic duct injury

- TB
- Malignancy
- Lymphoma
- Filariasis
- Myxoedema
- Trauma

130. Which of the following causes massive splenomegaly:

a) CLL

b) Multiple myeloma

c) Follicular lymphangitis

d) Gaucher's disease

e) Sjogren's syndrome

Correct Answer - A:D

Answer- (A) CLL (D) Gaucher's disease

The causes of massive splenomegaly include:

- Thalassemia
- Visceral leishmaniasis (Kala Azar)
- Schistosomiasis
- Chronic myelogenous leukemia
- Chronic lymphocytic leukemia
- Lymphomas
- Hairy cell leukemia
- Myelofibrosis
- Polycythemia vera
- Gauchers disease
- Niemann Pick disease
- Sarcoidosis
- Autoimmune hemolytic anemia
- Malaria
- Syphilis

131. ACTH dependent cushing syndrome is/are caused by:

a) Pituitary adenoma

b) Adrenal adenoma

c) Adrenocortical carcinoma

d) Pheochromocytoma

e) All

Correct Answer - A:D

Answer- (A) Pituitary adenoma (D) Pheochromocytoma

Cushing syndrome is caused to ACTH- producing adenoma.

ETIOLOGY

- Pituitary corticotrope adenomas
- Iatrogenic hypercortisolism (most common)
- Ectopic tumour ACTH production
- Cortisol- producing adrenal adenomas
- Adrenal carcinoma
- Adrenal hyperplasia
- Pheochromocytoma

132. Hyperglycemic Hyperosmolar state (HHS) is characterized by:

a) Hyperglycemia

b) Acidosis

c) Dehydration

d) Coma

e) None

Correct Answer - A:C:D

Answer- (A) Hyperglycemia (C) Dehydration (D) Coma

This is a life threatening complication of diabetes mellitus characterized by marked hyperglycemia, dehydration, coma and hyperosmolarity with or without mental obtundation in the absence of significant ketoacidosis

133. Which of the following is true about Pheochromocytoma:

a) Sestabimi scan is done before surgery

b) Mostly are malignant

c) Surgery is mainstay of treatment

d) Prior a blocker is given

e) Prior p blocker is given

Correct Answer - C:D:E

Answer- (C) Surgery is mainstay of treatment (D) Prior a blocker is given (E) Prior p blocker is given

Sestambi scanning is the preferred way in which to localize diseased parathyroid glands prior to operation.

Pheochromocytoma & paraganglioma are catecholamines producing tumours derived from sympathetic and parasympathetic nervous system.

They are derived from Chromaffin cells.

Treatment-

- Laproscopic resection
- Alpha adrenoreceptor blocker (phenoxybenzamine)- block catecholamine excess
- Beta blockade- tachycardia or arrhythmias
- Central venous catheter & invasive arterial monitoring used.
- Adult Dose of Clonidine for Clonidine Suppression test is 0.3 mg (0.3mg/70kg) administered orally. Clonidine Suppression Test
- Complete tumor removal is the ultimate therapeutic goal, can be achieved by partial or total adrenalectomy.

134. Treatment of crohn's disease includes:

a) Steroid

b) 5-Aminosalicylic acid agents

c) Azathioprine

d) Daclizumab

e) Adalimumab

Correct Answer - A:B:C:E

Answer- (A) Steroid (B) 5-Aminosalicylic acid agents

(C) Azathioprine (E) Adalimumab

Treatment-

- 5-ASA agents (mesalamine) not used now
- Mild to moderate disease involving terminal ileum or ascending colon– Budesonide
- Severe disease involving proximal small intestine or distal colon – Prednisone
- Immunomodulators (Azathioprine, mercaptopurine, methotrexate) and for maintenance of remission or
- induction of remission along with steroids in severe disease
- Anti-TNF therapy (Infliximab, adalimumab, certolizumab) -first-line agents to induce remission in moderate to severe disease and to maintain remission
- Anti-integrins: Natalizumab (anti- $\alpha 4$ integrin) – if no response to anti-TNF agents

135. Energy selection in CPR according to AHA 2010 guideline is/are:

a) Monophasic 120-200J, Biphasic 360 J

b) Monophasic 200 J, Biphasic 360J

c) Monophasic 120 J, Biphasic 200J

d) Monophasic 360 J, Biphasic 120-200 J

e) Monophasic 360J, Biphasic 220J

Correct Answer - D

Answer- (D) Monophasic 360 J, Biphasic 120-200 J

2010 AHA guideline for CPR Contrary to previous recommendation of 3 successive shocks (200, 300, 360J) nowadays 1st & all subsequent shocks are of 360 Joules with monophasic & 120-200 Joules with biphasic.

136. Which of the following lesion represent tertiary syphilis:

a) Condylomata lata

b) Matted lymph node

c) Condylomata acuminata

d) Tabes dorsalis

e) Gumma formation

Correct Answer - D:E

Answer- (D) Tabes dorsalis (E) Gumma formation

Gumma, neurosyphilis/tabes dorsalis

Ostitis, periostitis

Aortitis, aortic insufficiency, coronary stenosis and nocturnal angina

137. Which of the following statement (s) is/are correct regarding syphilis in pregnancy & congenital syphilis:

a) Foetus has more chance of infection in 3rd T. M

b) Syphilis can be prevented by giving penicillin in neonate

c) If infant showing signs of syphilis, he/she should be given single dose of crystalline penicillin

d) If infant does not have any signs of syphilis, he/she should be given benzathine penicillin

e) Foetus is most likely affected if mother is suffering from primary or secondary syphilis than late syphilis

Correct Answer - A:B:D:E

Answer- (A) Foetus has more chance of infection in 3rd T. M

(B) Syphilis can be prevented by giving penicillin in neonate

(D) If infant does not have any signs of syphilis, he/she should be given benzathine penicillin (E) Foetus is most likely affected if mother is suffering from primary or secondary syphilis than late syphilis

Congenital Syphilis

(a) Early Congenital Syphilis:

- Snuffles (rhinitis) is the earliest feature.
- Lesions are vesiculobullous and snail track ulcers on the mucosa

(b) Late Congenital Syphilis:

- Characterized by Hutchinson's triad interstitial keratitis
- 8th nerve deafness
- Hutchinson's teeth i.e. pegged central upper incisors

- Saddle nose, sabre tibia, mulberry molars
- Bull dog's jaw (protrusion of jaw)
- Rhagades (linear fissure at mouth, nares)
- Frontal bossing, hot cross bun deformity of skull
- Clutton's joint (painless swelling of joints, most commonly both knee)

Syphilis in pregnancy-

- All pregnant women should have a nontreponemal serologic test for syphilis at the time of the first prenatal visit.
- The only acceptable treatment for syphilis in pregnancy is penicillin in dosage schedules appropriate for the stage of disease.
- Penicillin prevents congenital syphilis in 90% of cases, even when treatment is given late in pregnancy.
- Syphilitic women to her foetus may occur at any stage of pregnancy.

138. Ascitic fluid with T SAAG & Talbumin is/are found in:

a) T. B

b) CHF

c) Cirrhosis

d) Pancreatitis

e) Nephrotic syndrome

Correct Answer - B

Answer- B. CHF

Serum-ascites albumin gradient (SAAG) is useful for distinguishing ascites caused by portal hypertension from nonportal hypertensive ascites.

A SAAG >1.1 g/dl- reflects the presence of portal hypertension

A SAAG <1.1 g/dl- tuberculous peritonitis, peritoneal carcinomatosis, or pancreatic ascites.

For high-SAAG (>1.1) ascites-

An ascitic protein level of >2.5 g/dl indicates that the hepatic sinusoids occurs in cardiac ascites, sinusoidal obstruction syndrome, or early Budd-Chiari syndrome.

An ascitic protein level <2.5 g/dl, indicates cirrhosis, late Budd-Chiari syndrome, or massive liver metastases.

139. For cancer pain, ladder 2 step in WHO's pain step ladder includes:

a) Oral morphine

b) Injectable morphine

c) Codeine

d) Fentanyl

e) Tramadol

Correct Answer - C:E

Answer- (C) Codeine (E) Tramadol

Second step: Intermediate strength opioids: codeine, tramadol or dextropropoxyphene.

140. True about peptic ulcer:

a) H. pylori causes peptic ulcer

b) Eradication therapy better than PPI therapy

c) Eradication therapy also contain PPI

d) Duodenum ulcer is more commonly associated with H. pylori than gastric ulcer

e) Gastric ulcer is more commonly associated with H. pylori than duodenal ulcer

Correct Answer - A:B:C:D

Answer- (A) H. pylori causes peptic ulcer (B) Eradication therapy better than PPI therapy (C) Eradication therapy also contain PPI (D) Duodenum ulcer is more commonly associated with H. pylori than gastric ulcer

H pylori infection.

Medical treatment: Proton pump inhibitors or H2 blockers; H.pylori eradication

Eradication of H. pylori and therapy/prevention of NSAID-induced disease is the mainstay of treatment.

Combination regimens that use two or three antibiotics with a proton pump inhibitor.

141. Features of Constrictive pericarditis which differentiate with restrictive cardiomyopathy:

a) Prominent y descent more common

b) Pericardial knock

c) Third heart sound

d) Thickened pericardium

e) Right ventricular hypertrophy

Correct Answer - A:B:D

Answer- (A) Prominent y descent more common (B) Pericardial knock (D) Thickened pericardium

Diastolic pressure are equalized in constrictive pericarditis but not in Restrictive cardiomyopathy Thickened pericardium is seen in constrictive pericarditis but not in Restrictive cardiomyopathy Right ventricular size is usually normal in both and pericardial effusion is usually absent in both, RV size and pericardial effusion, therefore can not distinguish between constrictive pericarditis and Restrictive cardiomyopathy.

142. CURB-65 criteria for severe pneumonia includes:

a) Confusion

b) Uremia

c) Respiratory rate 30/min

d) Systolic Blood pressure 80 mmHg

e) Diastolic blood pressure, systolic 50 mmHg

Correct Answer - A:B:C

Answer- (A) Confusion (B) Uremia (C) Respiratory rate 30/min

The CURB-65 assesses five-

- Confusion
- Uremia
- Respiratory rate
- Blood pressure
- Age >65

143. Which of the following feature favours emphysema rather than interstitial fibrosis:

a) TFEV1

b) LFEV1/FEV6

c) TRV

d) TTLC

e) 4, Peak expiratory flow

Correct Answer - B:C:D:E

Answer- (B) LFEV1/FEV6 (C) TRV (D) TTLC (E) 4, Peak expiratory flow

Interstitial lung disease like interstitial fibrosis are characterized by a normal or elevated FEV/FVC ratio which is characteristically > 0.7. PFT results comparing obstructive and restrictive disease (may not be applicable for all forms of lung (disease))

FEV1=forced expiratory volume in one second; FVC=Forced Vital Capacity; FEV25_75=Forced Expiratory Flow at 25%=75% vital capacity; TLC= Total Lung Capacity; DLCO= Diffusion Capacity of the Lung for Carbon monoxide.

144. Feature of unstable angina:

a) T Troponin

b) Transient elevation of ST segment

c) Depression of ST segment

d) Q wave

e) T wave inversion

Correct Answer - B:C:E

Answer- (B) Transient elevation of ST segment (C) Depression of ST segment (E) T wave inversion

In UA, ST-segment depression, transient ST-segment elevation, and/or T- wave inversion occur in 30 to 50% of patients.

The Presence of new ST-segment deviation.

T-wave changes are sensitive for ischemia deep T- wave inversions.

145. All are true about rheumatoid factor except:

a) Also found in Sjogren syndrome

b) May also present normally

c) It is basically IgM

d) Its presence is diagnostic of rheumatoid arthritis

e) None

Correct Answer - A:B:C

Answer- (A) Also found in Sjogren syndrome (B) May also present normally (C) It is basically IgM

-IgM, IgG, and IgA isotypes of RF occur in sera from patients with RA.

Serum IgM RF has been found in 75-80% of patients with RA.

Found in other connective tissue diseases, such as primary Sjogren's syndrome, systemic lupus erythematosus, and type II mixed essential cryoglobulinemia.

Anti-CCP antibodies are the most specific blood test for rheumatoid arthritis

146. Feature (s) of TICT include:

a) Constricted pupil

b) Tachycardia

c) Bradycardia

d) Hypertension

e) Respiratory depression

Correct Answer - C:D:E

Answer- (C) Bradycardia (D) Hypertension (E) Respiratory depression

Blood pressure elevation accompanied by bradycardia and respiratory slowing classically results from raised intracranial pressure.

Loss of the normal autoregulation of blood pressure and pulse, called the Cushing's reflex is a hallmark of severe brain injury or imminent crisis.

Anisocoria, unequal pupil size, is another sign of serious traumatic brain injury.

147. True about Kallman syndrome:

a) Amenorrhoea

b) Hypergonadotrophic state

c) Anosmia

d) Failure of secondary sexual development

e) None

Correct Answer - A:C:D

Answer- (A) Amenorrhoea (C) Anosmia (D) Failure of secondary sexual development

Kallmann syndrome is caused from defective gonadotropin releasing hormone (GnRH) synthesis.

Clinical features-

- Anaemia & hyposmia due to olfactory bulb agenesis & hypoplasia.
- Color blindness, optic atrophy, nerve deafness.
- Cleft palate, cryptorchidism & mirror movements (neurological defects)
- In males- delayed puberty, micropenis.
- In females- primary amenorrhea, failure of secondary sexual development.
- Low LH & FSH levels & sex steroids.

148. Which of the following is/are true regarding Asthma & COPD:

a) COPD shows less reversibility to bronchodilators while asthma shows significant improvement

b) Asthma has a gradual progression of dyspnea on exertion, punctuated by acute exacerbations of shortness of breath. while most COPD patients have normal breathing the majority of the time

c) COPD patients may have acute exacerbations while asthmatic patients have recurrent episode

d) Steroid therapy is more beneficial to asthma patients than COPD patients

e) Neutrophils have primary a role in pathogenesis of asthma & eosinophils have primary role in COPD

Correct Answer - A:C:D

Answer- (A) COPD shows less reversibility to bronchodilators while asthma shows significant improvement (C) COPD patients may have acute exacerbations while asthmatic patients have recurrent episode (D) Steroid therapy is more beneficial to asthma patients than COPD patients

Patients with COPD has a gradual progression of dyspnea on exertion, punctuated by acute exacerbations of shortness of breath. Most asthmatics have normal breathing with recurrent episodes of dyspnea due to triggering factor.

COPD is seen specifically in smokers.

Asthmatics often show an acute response to inhaled bronchodilators.

COPD is generally not responsive to oral corticosteroid therapy. Inhaled corticosteroids are one of the most effective ways of controlling asthma.

Eosinophilic infiltration is a characteristic feature of asthmatic airway. In COPD there is macrophage activation & neutrophil recruitment in airway.

149. All are true about acute radiation pneumonitis except:

a) Fever not present

b) Steroid is beneficial

c) X-ray chest finding correlates poorly with symptom

d) Develop immediately after radiotherapy

e) All

Correct Answer - A:D

Answer- (A) Fever not present (D) Develop immediately after radiotherapy

Two phases of the pulmonary response to radiation are apparent:

- acute phase (radiation pneumonitis)
- chronic phase (radiation fibrosis)
- Clinical features-
- manifested by fever, dyspnea out of proportion to the volume of lung irradiated, pleural effusion.
- With steroid therapy, these symptoms may resolve completely in some patients without long-term effects.
- Epithelial cell atypia and foam cell within vessel walls are also characteristic of radiation damage.

150. Which of the following is/are true about Subarachnoid Hemorrhage (SAH):

- a) Saccular aneurysm is most common cause of SAH after head trauma
- b) Severe headache may present
- c) CT angiography help in localizing aneurysm
- d) CT scan is investigation of choice for acute SAH
- e) Digital subtraction angiography is better than CT angiography for SAH

Correct Answer - B:C:D

Answer- (B) Severe headache may present (C) CT angiography help in localizing aneurysm (D) CT scan is investigation of choice for acute SAH

Sudden loss of consciousness may be preceded by a brief moment of excruciating headache.

The hallmark of aneurysmal rupture is blood in the CSF.

Cases have enough blood to be visualized on a high quality non contrast CT scan & bind within 72 hrs.

A lumbar puncture should b performed to establish the presence of subarachnoid blood.

151. Which of the condition cause pericarditis due to hypersensitivity:

a) SLE

b) Rheumatic fever

c) Dressler syndrome

d) Uraemia

e) Myxedema

Correct Answer - A:B:C

Answer- (A) SLE (B) Rheumatic fever (C) Dressler syndrome

A. Rheumatic fever

B. Collagen vascular disease (systemic lupus erythematosus, rheumatoid arthritis, ankylosing spondylitis, scleroderma, acute rheumatic fever, granulomatosis with polyangiitis (Wegener's)

C. Drug-induced (e.g., procainamide, hydralazine, phenytoin, isoniazide, minoxidil, anticoagulants, methysergide)

D. Post-cardiac injury

.. Postmyocardial infarction (Dressler's syndrome)

2. Postpericardiotomy

3. Posttraumatic

152. ECG change (s) in pulmonary embolism may includes:

a) ST elevation in VI & aVR

b) T wave inversion in VI to V4

c) S1Q3T3 pattern

d) Left axis deviation

e) Right bundle branch block

Correct Answer - A:B:C:E

Answer- (A) ST elevation in VI & aVR (B) T wave inversion in VI to V4 (C) S1Q3T3 pattern (E) Right bundle branch block

Sinus tachycardia is the most frequent and nonspecific finding on electrocardiography in acute pulmonary embolism.

Features suggesting acute right heart strain on the ECG occur relatively infrequently, these include.

Acute right axis deviation

P pulmonale

Right bundle branch block

Inverted T waves

ST segment changes in right sided leads.

Earlier the following E.C.G. changes were considered highly predictive of acute pulmonary embolism, but these observations were found in less than 12% of patients with pulmonary emboli in recent studies.

These E.C.G. features are -

- S wave in lead I
- Q wave in lead III

- Inverted T in lead III (S1Q31.3)
- S waves in lead I, II and III ("S1, S2 S3)

153. All are true about "a" wave except:

a) It is often the largest positive wave visible

b) Giant wave in atrial fibrillation

c) Tricuspid stenosis produces giant wave

d) Heart block diminish magnitude of a wave

e) Produced by right atrial contraction

Correct Answer - B:D

Answer- (B) Giant wave in atrial fibrillation (D) Heart block diminish magnitude of a wave

A wave reflects right atrial presystolic contraction and occurs just after the electrocardiographic P wave, preceding the first heart sound (S1). A prominent alpha wave is seen in patients with reduced right ventricular compliance; a cannon a wave occurs with atrioventricular (AV) dissociation and right atrial contraction against a closed tricuspid valve.

In a patient with a wide complex tachycardia, the appreciation of cannon a waves in the jugular venous waveform identifies the rhythm as ventricular in origin.

The A wave is not present with atrial fibrillation.

154. A patient has short h/o increased jugular venous pressure, weak peripheral pulse & low B.P. Likely condition (s) may be:

a) Tension pneumothorax

b) Venous gas embolism

c) Pulmonary embolism

d) Cardiac tamponade

e) Septic shock

Correct Answer - A:B:C:D

Answer- (A) Tension pneumothorax (B) Venous gas embolism (C) Pulmonary embolism (D) Cardiac tamponade

"Septic shock has low CVP with high cardiac output.

Venous gas embolism: It can cause acute cor pulmonale & cardiovascular collapse.

Tension pneumothorax: There is decreased venous return to the heart dt cardiac output falls leading to hypotension.

Cardiac tamponade (Pericardial effusion) should be considered in any patient with hypotension, low volume pulse & raised IVP.

155. A 40 year old lady from Himanchal Pradesh has fever & eschar on body. Blood investigation revealed: Hb=12 gm%, TLC=9800/1.11, Platelet 80000. Which of the following drug (s) may be used in her treatment:

a) Oral Doxycycline

b) Meropenem

c) Azithromycin

d) Tetracycline

e) Chloramphenicol

Correct Answer - A:C:D:E

Answer- (A) Oral Doxycycline (C) Azithromycin (D) Tetracycline (E) Chloramphenicol

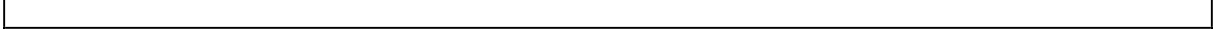
The clinical manifestations of all the acute presentations are similar during the first 5 days: fever headache, and myalgias with or without nausea, vomiting, and cough.

Clinical manifestations-including occurrence of a macular, maculopapular, or vesicular rash; eschar; pneumonitis; and meningoencephalitis.

Doxycycline is the drug of choice for most of these infections.

Tetracycline is drug of choice for specific treatment of all rickettsial diseases.

Long acting (doxycycline, minocycline) now make single dose treatment possible.



156. Which of the following is true regarding pseudobulbar palsy:

a) Dysphagia

b) Jaw jerk brisk

c) Absent gag reflex

d) Tongue fasciculation present

e) Plantar reflex is extensor

Correct Answer - A:B:E

Answer- (A) Dysphagia (B) Jaw jerk brisk (E) Plantar reflex is extensor

Dysarthria

Dysphagia

Gag reflex

Jaw jerk hyperactive

Emotional lability

Intellectual impairment

157. Which of the following is true regarding adrenocortical carcinomas:

a) Increased urinary excretion of VMA

b) Does not cause metastasis

c) Surgery is mainstay treatment

d) Associated with Li-Fraumeni syndrome

e) None

Correct Answer - C:D

Answer- (C) Surgery is mainstay treatment (D) Associated with Li-Fraumeni syndrome

Increased VMA excretion into the urine can occur in Neuroblastomas, pheochromocytomas, and other neuroendocrine tumors.

Two rare inherited causes of adrenal cortical carcinomas are Li-Fraumeni syndrome and Beckwith- Wiedenann syndrome.

Metastases to regional and periaortic nodes are common.

ACC carries a poor prognosis and cure can be achieved only by complete surgical removal.

158. A patient presented with high pH, low arterial CO₂ & low plasma HCO₃-level. Which of the following statement is true regarding the presentation & various causes:

a) Compensated respiratory alkalosis

b) Chronic renal failure

c) Persistent vomiting

d) Cerebro-vascular accident

e) Hepatic failure

Correct Answer - A:D:E

Answer- (A) Compensated respiratory alkalosis (D) Cerebro-vascular accident (E) Hepatic failure

High pH means-alkalosis

Decrease CO₂, means respiratory alkalosis

Low HCO₃⁻ level means metabolic acidosis

Therefore it is a case of respiratory alkalosis with metabolic acidosis (Compensated respiratory alkalosis)

159. MIBG (metaiodobenzyl guanithidine) is analogue to:

a) Epinephrine

b) Adenine

c) Norepinephrine

d) Guanine

e) Phenylephrine

Correct Answer - C

Answer- (C) Norepinephrine

Pheochromocytoma can be localized using radioactive tracers including ^{131}I -or ^{123}I - metaiodobenzyl guanithidine (MIBG), ^{111}In -somatostatin analogues, or ^{18}F -dopa (or dopamine) Positron-emission tomography (PET).

160. Presentation (s) of Bechet syndrome may include:

a) Erosive arthritis

b) Recurrent aphthous ulcers of the mouth

c) Uveitis

d) Genital ulcer

e) Pathergy test

Correct Answer - B:C:D:E

Answer- (B) Recurrent aphthous ulcers of the mouth (C) Uveitis (D) Genital ulcer (E) Pathergy test

Behcet's syndrome is a multisystem disorder presenting with recurrent oral and genital ulcerations as well as ocular involvement. Non-deforming arthritis or arthralgias are seen in 50% of patients and affects the knees and ankles.

Recurrent oral ulceration plus two of the following:

- Recurrent genital ulceration
- Eye lesions
- Skin lesions
- Pathergy test

The hallmark of Behcet disease is painful aphthous ulceration in the mouth.

Either anterior or posterior uveitis posterior uveitis may be asymptomatic

161. Brain death can be assessed by:

a) Apnoea test

b) CT scan

c) MRI scan

d) Cerebral angiography

e) Transcranial Doppler

Correct Answer - A:D:E

**Answer- (A) Apnoea test (D) Cerebral angiography
(E) Transcranial Doppler**

Spinal cord reflexes may be preserved in coma & re- examination (not < 2hour apart) is optional.

Apnea test should be done at last because of its harmful effects on intracranial pressure.

Isoelectric EEG, absent brain stem auditory evoked potentials & absence of cerebral perfusion (on angiography, radioisotope scan or transcranial Doppler) are confirmatory but not required tests.

162. According to Surviving Sepsis Guidelines 2013, which of the following is/are correct regarding sepsis & septic shock treatment guideline:

a) Urine output should be $> 2\text{mL/kg}$

b) Mean arterial pressure goal should be 65 mm Hg

c) Dopamine as the first choice vasopressor

d) Colloid is initial fluid of choice in the resuscitation

e) Administration of effective intravenous antimicrobials within the first hour of recognition

Correct Answer - B:E

**Answer- (B) Mean arterial pressure goal should be 65 mm Hg
(E) Administration of effective intravenous antimicrobials within the first hour of recognition**

Crystalloids as the initial fluid of choice in the resuscitation of severe sepsis and septic shock.

Norepinephrine as the first choice vasopressor.

Dopamine as an alternative vasopressor agent to norepinephrine only in highly selected patients.

The goals during the first 6 hours of resuscitation should be (Grade IC):

- Mean arterial pressure (MAP) ≥ 65 mm Hg;
- Central venous pressure (CVP) 8-12 mm Hg (12-15 mm Hg in Patients receiving mechanical ventilation or with known preexisting decreased ventricular compliance)
- Urine output ≥ 0.5 mL/kg/hr (35 mL/hr for someone weighing 70 kg)

or 154 lbs)

- Central venous oxygen saturation (from the superior vena cava) $\geq 70\%$, or mixed venous oxygen saturation (from a pulmonary artery catheter) $\geq 65\%$

163. All are true about Menetrier's disease except:

a) Increased gastric acid secretion

b) Protein-losing gastropathy

c) Mainly affects body & fundus

d) No malignant potential

e) Transforming growth factor- α is overexpressed

Correct Answer - D

Answer- (D) No malignant potential

Menetrier's disease is an unusual condition characterised by hypertrophy of the gastric mucosal folds, mucus production & hypochohydria.

It is a premalignant condition.

The mucosal folds in Menetrier's disease are often most prominent in the body and fundus.

Caused by excessive secretion of TGF α .

Clinical features-

- Hypoproteinaemia
- Anaemia
- Increased risk of gastric adenocarcinoma associated with protein losing enteropathy.
- May get confused with Zollinger- Ellison syndrome.

164. Which of the following is true about treatment of asthma:

a) Long acting P2 agonist for acute attack

b) Long acting 32 agonist for long term treatment

c) Short acting (32 agonist for acute attack

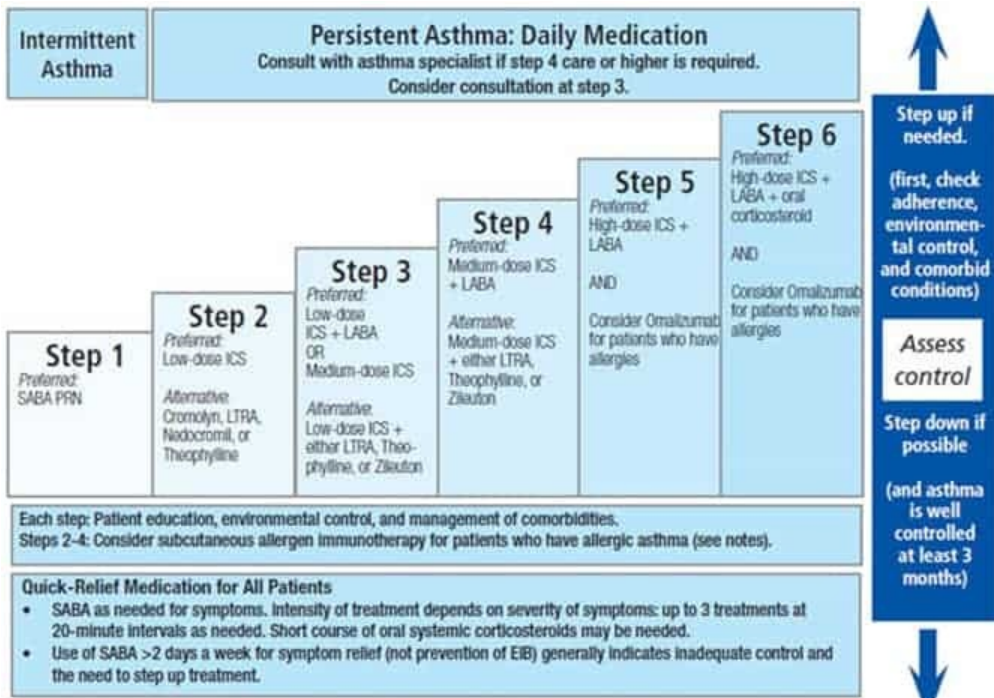
d) I.V Steroid for severe asthma exacerbation

e) Inhaled steroid for persistent asthma

Correct Answer - B:C:D:E

Answer- (B) Long acting 32 agonist for long term treatment (C) Short acting (32 agonist for acute attack (D) I.V Steroid for severe asthma exacerbation (E) Inhaled steroid for persistent asthma

Oral corticosteroids should generally be prescribed for early administration at home in patients with moderate to severe asthma



NAEPP 3 recommendations emphasize daily anti-inflammatory therapy with inhaled corticosteroids as the cornerstone of treatment of persistent asthma.

165. Side-effect (s) of inhalational steroid is/are all except:

a) Adrenal suppression

b) Cataract

c) Osteoporosis

d) Hypoglycemia

e) Skin thinning

Correct Answer - D

Answer- D. Hypoglycemia

Local side effects include hoarseness (dysphonia) and oral candidiasis

growth retardation in children or to osteoporosis in adults.

bruising, petechiae

Hyperglycemia & pituitary- adrenal suppression

166. Which of the following dyads of disease-neurotransmitter is correct:

a) Myasthenia gravis-Acetylcholine receptor

b) Spasticity-GABA

c) Lambert-Eaton myasthenic syndrome -Acetylcholine

d) Stiff-person syndrome-Glycine

e) Parkinson's disease -Dopamine

Correct Answer - A:C:E

Answer- (A) Myasthenia gravis-Acetylcholine receptor

(C) Lambert-Eaton myasthenic syndrome -Acetylcholine

(E) Parkinson's disease -Dopamine

Acetylcholine (ACh)- Myasthenia gravis, Lambert-Eaton syndrome, Botulism, Alzheimer's disease

Dopamine- Parkinson's disease

Norepinephrine (NE)- Mood disorder, anxiety, Orthostatic tachycardia syndrome

Serotonin- Mood disorder ,Migraine pain pathway

GABA- Stiff-person syndrome, epilepsy

Glycine- Spasticity

167. All are true about syncope except:

- a) Consciousness is lost
- b) More common in standing than lying position
- c) Vasovagal type is common
- d) Return of consciousness is slow & take hours
- e) Short duration

Correct Answer - D

Answer- D. Return of consciousness is slow & take hours

Syncope is a transient, self-limited loss of consciousness due to acute global impairment of cerebral blood flow.

A syncopal attack begins when the patient is usually in an upright position (sitting or standing) Return of consciousness is prompt.

Vasovagal syncope is due to excessive vagal tone or impaired reflex control of the peripheral circulation.

The most frequent type of vasodepressor syncope is vasovagal hypotension or the common faint.

168. Drug (s) given in thyroid crisis:

a) Esmolol

b) Iodine

c) Hydrocortisone

d) Aspirin

e) Propylthiouracil

Correct Answer - A:B:C:E

**Answer- (A) Esmolol (B) Iodine (C) Hydrocortisone
(E) Propylthiouracil**

TREATMENT-

- Propylthiouracil (drug of choice)
- Stable iodide blocks thyroid hormone synthesis via Wolff- Chaikoff effect.
- Potassium iodide
- Propranolol, esmolol
- Glucocorticoids, Hydrocortisone
- Calcium channel blocker

169. Unequal pulse in upper & lower extremities (i.e., radio-femoral delay) is/are seen in:

a) Aortic dissection

b) Post-ductal coarctation of aorta

c) Supra-valvular Aortic stenosis

d) Sub-valvular Aortic stenosis

e) Takayasu's syndrome

Correct Answer - B

Answer- (B) Post-ductal coarctation of aorta

Inequality between Two Radial Pulse (Radio-Radial Delay)

- Thoracic inlet syndrome (cervical rib' scalene syndrome)
- Aneurysm of aorta
- Takayasu's disease
- Pre-subclavian coarctation
- SuPravalvular aortic stenosis
- Atherosclerosis of aorta

170. Non-exertional classic heat stroke is/are predisposed in:

a) Person with previous chronic illness

b) Elderly

c) Young & healthy person

d) Adolescent

e) All

Correct Answer - A:B

Answer- (A) Person with previous chronic illness (B) Elderly

Heat stroke presents with a hyperthermia of greater than 40.6 °C (105.1 °F) in combination with confusion and a lack of sweating.

There are two forms of heatstroke- Classic (epidemic) & exertational
Patients with CHS commonly have chronic diseases that predispose to heat-related illness.

If cooling is delayed, severe hepatic dysfunction, renal failure, disseminated intravascular coagulation, and fulminant multisystem organ failure may occur.

Classic heat stroke is older patient.

171. Which of the following cause(s) motor neuropathy:

a) GBS

b) Diphtheria

c) Diabetes

d) Frideric ataxia

e) All

Correct Answer - A:B:D

Answer- (A) GBS (B) Diphtheria (D) Frideric ataxia

Parkinson's disease is characterized by rest tremor, rigidity, bradykinesia, and gait impairment, known as the "cardinal features" of the disease.

Can include freezing of gait, postural instability, speech dfficulty, autonomic disturbances, sensory alterations, mood disorders, sleep dysfunction, cognitive impairment, and dementia.

172. Which of the following is/are feature of Pre-renal ARF in comparison to intrinsic renal failure:

a) Fractional excretion of Sodium <1

b) Renal failure index > 1

c) Urine osmolality >500 mosmol/kg H₂O

d) Urine creatinine/ plasma creatinine > 40

e) Plasma BUN/creatinine ratio <20

Correct Answer - A:C:D

Answer- (A) Fractional excretion of Sodium <1 (C) Urine osmolality >500 mosmol/kg H₂O (D) Urine creatinine/ plasma creatinine > 40

Comparison of lab findings in AKI (1)

Test	Prerenal AKI	Intrinsic AKI
Urine specific gravity	>1.020	≤1.010
Urine sodium, mEq/L	<20	>40
Fractional excretion of sodium	<1%(neonates <2%)	>2%(neonates >2.5%)
Fractional excretion of urea	<35%	>50%
Urine osmolality, mOsm/kg	>500	<350
Urea nitrogen - creatinine ratio	>20	10-50

173. Drug causing pulmonary fibrosis is/are :

a) Amiodarone

b) Cisplatin

c) Gold

d) Bleomycin

e) All

Correct Answer - A:C:D

Answer- (A) Amiodarone (C) Gold (D) Bleomycin

Nitrofurantoin

Bleomycin

Busulfan

Cyclophosphamide Methysergide

Phenytoin

174. Which of the following causes hyperkalemia:

a) Bartter syndrome

b) RTA I

c) RTA II

d) Tumor lysis syndrome

e) Addison's disease

Correct Answer - D:E

Answer- (D) Tumor lysis syndrome (E) Addison's disease

Inadequate excretion

A. Advanced renal insufficiency

- 1. Chronic kidney disease
- 2. End-stage renal disease
- 3. Acute oliguric kidney injury

B. Primary adrenal insufficiency

- 1. Autoimmune: Addison's disease, polyglandular endocrinopathy
- 2. Infectious: HIV, cytomegalovirus, tuberculosis, disseminated fungal infection
- 3. Infiltrative: amyloidosis, malignancy, metastatic cancer
- 4. Drug-associated: heparin, low-molecular-weight heparin
- 5. Hereditary: adrenal hypoplasia congenita, congenital lipoid adrenal hyperplasia, aldosterone synthase deficiency
- 6. Adrenal hemorrhage or infarction, including in antiphospholipid syndrome

175. Treatment of Hyperkalemia includes:

a) Insulin

b) CaHCO₃

c) Hemodialysis

d) p2 agonist

e) 50 ml of 50% dextrose with insulin

Correct Answer - A:C:D:E

Answer- (A) Insulin (C) Hemodialysis (D) p2 agonist (E) 50 ml of 50% dextrose with insulin

Calcium supplementation (calcium gluconate)

Insulin intravenous injection along with dextrose to prevent hypoglycemia, will lead to a shift of potassium ions into cells, secondary to increased activity of the sodium-potassium ATPase.

Bicarbonate therapy

Salbutamol

Sodium Polystyrene sulfonate

Non-emergency hyperkalemia treatment:

- Loop diuretics - By renal K⁺ excretion.
- Resins [Sodium polystyrene sulfonate] - By binding K⁺
- Hemodialysis - By extracorporeal K⁺ removal

176. Neoplastic lesion in AIDS includes:

a) Anal carcinoma

b) Non-Hodgkin's lymphoma

c) Esophageal carcinoma

d) Burkitt's lymphoma

e) Cervical carcinoma

Correct Answer - A:B

Answer- A,Anal carcinoma B, Non-Hodgkin's lymphoma

Kaposi sarcoma(Multifocal tumor of vascular origin)(HHV - 8)

Non Hodgkin lymphoma

Primary lymphoma of brain

Invasive cancer of uterine cervix

Immunoblastic lymphoma (most common lymphoma)

Primary Effusion Lymphoma (PEL)

Plasmacytic lymphoma of the oral cavity

Burkitt's lymphoma(EB virus)

177. Treatment of facio-cervical actinomycosis includes:

a) Surgery is treatment of choice

b) Drug of choice is penicillin G

c) Metronidazole

d) Amoxicillin

e) All

Correct Answer - B:D

Answer- B,Drug of choice is penicillin G D, Amoxicillin

1st choice-Penicillin or amoxicillin for six to twelve months

2nd choice- Doxycycline

Surgery if the disease is extensive

178. Which of the following is/are not feature of anorexia nervosa:

a) Strict dieting

b) Hallucination

c) Amenorrhoea

d) Distortion of body image

e) Endocrine abnormalities

Correct Answer - B

Answer- B. Hallucination

PSYCHOLOGICAL SYMPTOMS:

- Distorted Body Image.

EMOTIONAL:

- Mood swings
- Increased commitment to work
- BEHAVIORAL -Excessive exercise, starvation.
- PHYSICAL: Extreme weight loss and stunted growth, amenorrhea, nipple discharge, dehydration, hypothermia, osteoporosis.

179. Community acquired pneumonia is/are caused by:

a) Staph. aureus

b) Mycoplasma pneumoniae

c) Streptococcus pneumoniae

d) Influenza virus

e) Neisseria gonorrhoeae

Correct Answer - A:B:C:D

Answer- A,Staph. aureus B,Mycoplasma pneumoniae C,Streptococcus pneumoniae D, Influenza virus

Strep toco ccus pneumoniae

Haem ophilus influenzae

Moraxella catarrhalis

Staphylococcus aureus

L e gi o n ell a p n e um o ph il a

Enterobacteriaceae (Klebsiella pneumoniae) and Pseudomonas sPP.

Mycoplasma pneumoniae

Chlamydia sPP.

Influenza A

180. Which of the following investigation is useful for Zollinger-Ellison Syndrome (gastrinoma):

a) USG

b) MRI

c) CT scan

d) OctreoScan

e) Endoscopic ultrasound

Correct Answer - A:B:C:D:E

Answer- A,USG B,MRI C,CT scan D,OctreoScan E, Endoscopic ultrasound

Investigations-

- Serum gastrin elevated
- Patient should first undergo an abdominal CT scan, MRI, or OctreoScan to exclude metastatic disease.
- Endoscopic ultrasound (EUS) permits imaging of the pancreas with a high degree of resolution
- Radiolabelled somatostatin receptor scintigraphy.
- Gastrinoma patients have fasting gastrin level >150- 200 pg/ml
- BAO >15 meq/h in the presence of hypergastrinemia is pathognomonic of ZES.
- BAO/ MAO ratio >0.6 being highly suggestive of ZES.
- The most sensitive and specific gastrin provocative test for the diagnosis of gastrinoma is the secretin study. (An increase in gastrin of ≥ 120 pg within 15 min of secretin injection has a sensitivity and specificity of >90% for ZES.)

181. Paraneoplastic syndromes of lung carcinoma include:

a) Hypercalcemia

b) SIADH

c) Hypocalcemia

d) Hypoglycemia

e) Hypernatremia

Correct Answer - A:B:C

Answer- A,Hypercalcemia B, SIADH C, Hypocalcemia

Hypercalcemia of malignancy

- SIADH
- Cushing's syndrome
- Hypoglycemia
- Male feminization
- Diarrhoea or intestinal hypermotility
- Osteomalacia
- Acromegaly
- Hyperthyroidism
- Hypertension

182. A person's X-ray chest showing homogenous opacity on right side with shifting of mediastinum on opposite side. Most probable diagnosis is/are:

a) Collapse

b) Pleural effusion

c) Pneumothorax

d) Consolidation

e) Post-pneumectomy

Correct Answer - B

Answer- (B) Pleural effusion

Pneumectomy chest (Early sip: within 24 hr): Partial filling of thorax, ipsilateral mediastinal shift & diaphragmatic elevation.

Homogenous opacity

Shift of mediastinum to the opposite side

Concave upper border (Ellis's curve)

183. Which of the following is/are true about pneumothorax:

a) Decreased chest movement

b) Dull on percussion

c) Decrease breathing sound

d) Hyper-resonant note on percussion

e) End-expiratory crepitation

Correct Answer - A:C:D

Answer- A,Decreased chest movement C,Decrease breathing sound D,Hyper-resonant note on percussion

In pneumothorax, intra-pleural pressure equilibrates with the ambient barometric pressure and the lung's natural recoil tendency causes it to collapse.

Pneumothorax tends to cause collapse of the lungs and a decreased compliance.

Closed Pneumothorax-

- Reduced chest movement
- Hyper-resonant note on percussion
- Absent air entry
- Mediastinal shift to opposite side
- Coin test

Open Pneumothorax-

- Crackpot sound on percussion
- Amphoric breath sounds
- Displacement of mediastinum with respiration
- Increasing breathlessness, cyanosis & tachycardia

184. Which of the following included in ATP III criteria for Metabolic syndrome:

a) B.P 130/85

b) Triglyceride 150 mg/dl

c) Fasting glucose 100

d) Waist circumference in female >80 cm

e) None

Correct Answer - A:B:C

Answer- A,B.P 130/85 B,Triglyceride 150 mg/dl C,Fasting glucose 100

Criteria	WHO (1998)	NCEP (2001)	IDF (2005)	Harmonized (2009)
Prerequisite	DM, IFG, IGT, IR	None	None	None
No. of other criteria	and 22 of:	23 of:	23 of:	23 of:
Obesity	BMI: ≥ 30 & for WHR: >0.9 (men) & >0.85 (women)	WC: ≥ 102 cm (men) & ≥ 88 cm (women)	WC: ≥ 94 cm (men) & ≥ 80 cm (women)	WC: ≥ 94 cm (men) & ≥ 80 cm (women)
BP (mmHg)	$\geq 140/90$	$\geq 130/135$ or $\geq 130/85$	$\geq 130/85$	$\geq 130/85$ or $\geq 130/85$

		Rx	or Rx	Rx
HDL-C (mg/dl)	<35 (men) & <39 (women) or	<40 (men) & <50 (women) or Rx	<40 (men) & <50 (women) or Rx	<40 (men) & <50 (women) or Rx
TG (mg/dl)	≤150	150 or Rx	2150 or Rx	kis() or Rx
Fasting glucose (mg/dl)	≤110, la	2100 or Rx	2100 or No	2100 or fix
Microalbuminuria	Urinary albumin 220 ug/min or albumin-creatinine ratio >30 mg/g			
<p>tRecommended waist circumference thresholds for the abdominal obesity in people of Asian origin.</p>				

185. Which of the following is/are true about inflammatory bowel disease:

- a) Smoking decreases risk of Crohn's disease & increases risk of ulcerative colitis
- b) PANCA - ulcerative colitis
- c) Linear ulcer- Crohn's disease
- d) Pseudopolyp- Crohn's disease
- e) Cobble stoning- ulcerative colitis

Correct Answer - B:C

Answer- (B) PANCA - ulcerative colitis (C) Linear ulcer- Crohn's disease

ULCERATIVE COLITIS

Watery or bloody diarrhea

Rectal discharge of mucus, perforation

Proctitis

Colitis

Proctosigmoiditis

Toxic megacolon, severe hemorrhage

CROHN'S DISEASE

Chronic diarrhea

Abdominal pain

Weight loss, pyrexia, abdominal mass

Acute intestinal obstruction

Multiple perianal fissures, fistula & abscess

Fat wrappings {creeping mesentery}

ULCERATIVE COLITIS

CROHN'S DISEASE

Gross-

Gross?

- Only the mucosa involved
- Superficial ulceration
- Exudation
- Pseudopolyps
- Inflammatory involves full thickness of bowel wall thickness of bowel wall involving serosa
- Cobble stone appearance
- Deep fissured ulcers
- Lymphadenopathy
- Fistula present
- Skip areas

Micro-

- Crypt abscess common
- Inflammatory polyps
- Pipe stem colon
- Micro?
- Non caseating giant cell granuloma present

ULCERATIVE COLITIS

CROWN'S DISEASE

Age-2nd to 4th & 7th to 9th decade

Age- 2nd to 4th decade

Gender- both are equally affected

Females are more affected

Etiology-

Etiology?

- More common in non/ex smokers
- More common in smokers

Anatomical distribution-

Anatomical distribution?

- Always involves rectum & descending colon/sigmoid
- Commonest in ileum (60%)
- Anal lesions are common

186. Herpes encephalitis findings are:

- a) Most commonly involves frontal & temporal lobe
- b) Commonly involves basal ganglia
- c) Hyperintense lesion in temporal lobe on T1-weighted images
- d) Hyperintense lesion in temporal lobe on T2-weighted images
- e) None

Correct Answer - A:D

Answer- (A) Most commonly involves frontal & temporal lobe (D) Hyperintense lesion in temporal lobe on T2-weighted images

HSV encephalitis-

Examples of focal findings include:

- 1. areas of increased signal intensity in the frontotemporal
 - 2. focal areas of low absorption, mass effect, and contrast enhancement on CT
 - 3. periodic focal temporal lobe spikes on a background of slow or low-amplitude ("flattened") activity on EEG
- 80% will have abnormalities in the temporal lobe.
Hyperintense on T2- images.

187. Paradoxical/ reverse splitting of second heart sound is/are seen in:

a) AS

b) PS

c) Complete left bundle branch block

d) Pulmonary arterial hypertension

e) All

Correct Answer - A:C

Answer- (A) AS (C) Complete left bundle branch block

Left Bundle Branch Block (LBBB) is typically associated with Reversed or Paradoxical Splitting of S2

Paradoxical splitting of second heart sound is caused by delayed A2 or early P2. Left Bundle Branch Block (LBBB) is associated with delayed Aortic closure (delayed A2) due to delayed electrical activation of the left ventricle.

ASD and RBBB are associated with a wide physiological (non-paradoxical) split of second heart sound due to delayed pulmonic closure (Delayed P2) while VSD is associated with a wide physiological (non-paradoxical) split second heart sound from early aortic closure (Early A2).

188. Which of the following causes acute pancreatitis:

a) Hypertriglyceridemia

b) Hypercalcemia

c) Steroid

d) Stavudine

e) Gall stone

Correct Answer - A:B:C:E

Answer- (A) Hypertriglyceridemia (B) Hypercalcemia (C) Steroid (E) Gall stone

Gall stones (most common)

Alcohol abuse is the second cause of acute pancreatitis.

Occult disease of the biliary tree or pancreatic ducts, especially microlithiasis, sludge.

Hypertriglyceridemia

Pancreas divisum

Pancreatic cancer

Sphincter of Oddi dysfunction

Cystic fibrosis

Drugs- Steroids, Azathioprine, Valproate, Estrogens, L-

Asparaginase, 6-mercaptopurine, Sulfonamides, Tetracycline, Anti-retroviral agents, Thiazide diuretics

Familial or genetic

Hyperparathyroidism

Hypercalcemia

Post ERCP

Most common causes in children: blunt abdominal injuries.

...common causes of cholelithiasis, multisystem disease (hemolytic uremic syndrome and inflammatory bowel disease) biliary stones or microlithiasis (sludging), and drug toxicity