

1.) A 23-year-old female presents with a sore throat lasting 3 weeks. She now complains of fever, difficulty swallowing, and difficulty opening her mouth. Her voice is muffled. On exam, her right tonsil is bulging. Which of the following is the most appropriate management?

- A. Steroid administration
- B. Duoneb therapy
- C. Nasotracheal intubation
- D. Needle aspiration
- E. Antifungal therapy

Answer Explained

Peritonsillar abscess, the most common deep infection of the head and neck that occurs in adults, is typically formed by a combination of aerobic and anaerobic bacteria. The presenting symptoms include fever, throat pain, and trismus. Ultrasonography and computed tomographic scanning are useful in confirming a diagnosis. **Needle aspiration** remains the gold standard for diagnosis and treatment of peritonsillar abscess. After performing aspiration, appropriate antibiotic therapy (including penicillin, clindamycin, cephalosporins, or metronidazole) must be initiated. Am Fam Physician. 2002 Jan 1;65(1):93-97.

2.) A 35-year-old woman complains of episodic chest pain that usually lasts for 5-10 minutes. The pain does not radiate. It is sometimes related to exercise but has also occurred at rest. She is a nonsmoker and has no history of HTN. Two other family members have died of heart disease, one at age 50, the other at 56. On physical examination, her BP is 120/70, pulse is 70, and cardiac exam shows an II/VI systolic ejection murmur heard along the left sternal border that increases in intensity when she stands up. Her point of maximum impulse is forceful. ECG shows nonspecific ST segment and T wave abnormalities. Which of the following tools would be best to use to confirm your diagnosis?

- A. Chest radiograph
- B. Cardiac Catheterization
- C. Echocardiography
- D. Chest CT scan
- E. Exercise Stress Test

Answer Explained

Two-dimensional and Doppler **echocardiography** is the imaging modality of choice to diagnose and determine the severity of aortic stenosis. <http://emedicine.medscape.com/article/150638-workup>.

3.) Which of the following would be most helpful in establishing the diagnosis of iron deficiency anemia?

- A. Increased reticulocyte count
- B. Decreased serum iron and decreased TIBC
- C. Normochromic macrocytic anemia
- D. Decreased serum iron and increased TIBC
- E. Decreased reticulocyte count

Answer Explained

Serum iron is a test that measures how much iron is in your blood. **Low serum iron suggests iron deficiency anemia.** TIBC is usually higher-than-normal when the body's iron stores are low. **Higher-than-normal TIBC may mean iron deficiency anemia.** Am J Med. 2008;121:943-948.

4.) A 30-year-old pregnant female presents at 34 weeks gestation complaining of bright red vaginal bleeding without pain or fever. The most likely etiology is

- A. Abruptio placentae
- B. Placenta previa
- C. This is normal for 34 weeks gestation
- D. Pre-eclampsia
- E. Eclampsia

Answer Explained

The classic presentation of **placenta previa** is painless vaginal bleeding. This hemorrhage often stops spontaneously and then recurs with labor. Placenta previa often leads to preterm delivery, with 44% of pregnancies with placenta previa delivered before 37 weeks. Am J Perinatol. Jan 2011;28(1):45-50.

5.) A 30-year-old female has a 1 week history of dyspnea and bilateral ankle edema. BP is 170/68, pulse is 122/min, and respirations 28/min. Exam shows warm skin, lid lag, bounding pulses, bibasilar rales, and fine tremor. Which of the following is the most likely diagnosis?

- A. Myasthenia gravis
- B. Essential tremor
- C. Mercury poisoning
- D. Hyperthyroidism
- E. Decreased reticulocyte count

Answer Explained

Individuals suffering from **hyperthyroidism** exhibit different common symptoms like hair loss, heat intolerance and anxiety. Although patients can experience significant increase in appetite, the loss of weight is evident. Additional signs include fatigue, weakness and muscle aches that affect the entire body. Furthermore, patients can also experience apathy, irritability, and hyperactivity. It is also quite common for patients to have polydipsia, polyuria as well as depression. Aside from sweating, they can also experience pretibial myxedema, tremor, and delirium. Patients are more likely to have dyspnea or shortness of breath, arrhythmias, and palpitations. These signs are also accompanied by diarrhea, vomiting, nausea and loss of libido. When left untreated, this condition can even lead to more health problems, one of which is osteoporosis. Patients with hyperthyroidism may also show some minor ocular symptoms. These include the lid-lag, extra-ocular muscle weakness, and eyelid retraction. The last symptom of which is often referred to as the hypothyroid stare.

6.) Which of the following is the preferred urgent treatment for an episode of panic disorder with terror and chest pressure?

- A. Sublingual nitroglycerin
- B. Oral temazepam (Restoril)

- C. Oral hydroxyzine (Vistaril)
- D. Oral phenobarbital
- E. Sublingual lorazepam (Ativan)

Answer Explained

The most commonly-prescribed class of drugs for panic disorders are the benzodiazepines (such as clonazepam, **lorazepam**, alprazolam). Copyright 2012 Mental Health Disorders.

7.) What is the test of choice to diagnose cystic fibrosis?

- A. Physical exam
- B. Genetic testing
- C. Serum potassium and chloride levels
- D. Chest radiograph
- E. Sweat chloride concentration testing

Answer Explained

The **sweat test** has been the gold standard diagnostic test for CF for many years. The sweat test is a quick, non-invasive, painless test that measures the levels of sodium and chloride excreted in sweat. Bilton, D (2008).Cystic fibrosis. Medicine. 36, 273-278.

8.) A patient complains of abdominal pain, low-grade fever, weight loss, nausea, vomiting and diarrhea. Abdominal radiography shows a string sign. Colonoscopy reveals skip lesions, a cobblestone appearance, and deep and longitudinal fissures. Which of the following diagnosis do you suspect?

- A. Crohn's disease
- B. Diverticulitis
- C. Irritable bowel syndrome
- D. Ischemic colitis

E. Ulcerative colitis

Answer Explained

Low-grade fever, prolonged diarrhea with abdominal pain, weight loss, and generalized fatigability are usually reported in **Crohn's disease**. The ulcerations of Crohn's disease may appear aphthoid, but they could also be deep and serpiginous. Skip areas, a cobblestone appearance, pseudopolyps, and rectal sparing are characteristic findings.

<http://www.clevelandclinicmeded.com>.

9.) Increased potassium concentrations may be found in which of the following conditions?

A. Prolonged vomiting

B. Metabolic alkalosis

C. Primary aldosteronism

D. Renal Insufficiency

E. None of the above

Answer Explained

The kidneys normally remove excess potassium from the body. **Renal insufficiency** can have high potassium levels when the kidneys are not working properly and are less able to get rid of potassium. Seifter JL. Potassium disorders. In: Goldman L, Schafer, AI, eds. Cecil Medicine. 24th ed. Philadelphia, Pa: Saunders Elsevier; 2011:chap 119..

10.) The most common bone malignancy that typically occurs in adolescents and presents with pain or swelling in the bone or joint and commonly affects the knee is

A. Osteoid osteoma

B. Ewing's sarcoma

C. Osgood-Schlatter

D. Osteosarcoma

E. Chondroblastoma

Answer Explained

Osteosarcoma is the most common cancerous (malignant) bone tumor in kids. Osteosarcoma tends to occur in the bones of the knee, shin (near the knee) or thigh (near the knee). Lerner A, Antman KH. Primary and metastatic malignant bone lesions. In: Goldman L, Schafer AI, eds. Cecil Medicine. 24th ed. Philadelphia, PA: Saunders Elsevier; 2011:chap 208.

11.) A child comes to the clinic with left ear pain and itching. On exam, you see edema and erythema in the left ear canal with purulent exudate. Pushing on the tragus causes increased pain. You cannot visualize the tympanic membrane very well. What is the treatment of choice?

- A. Amoxicillin
- B. Augmentin
- C. Irrigation of ear canal
- D. Polymyxin B sulfate
- E. ENT consult

Answer Explained

Otitis externa is usually treated empirically with topical neomycin/**polymyxin B**/hydrocortisone. The predominant pathogens associated with this infection are *Pseudomonas aeruginosa* and *Staphylococcus aureus*. South Med J. 2004 May;97(5):465-71.

12.) National guidelines state blood pressure targets should be lower for patients with diabetes and

- A. History of stroke
- B. Liver disease
- C. Renal disease
- D. Thyroid disease
- E. Hyperlipidemia

Answer Explained

The most recent scientific guideline statements from foundations and societies dealing with diabetes and kidney disease (**renal disease**) argue for blood pressure goals lower than 130/80 mm/HG. *Curr Hypertens Rep.* 2011 Dec;13(6):452-455.

13.) A 23-year-old college student presents to the urgent care complaining of a sore throat for 2 weeks. He also notes significant fatigue for the same amount of time. On exam, there is exudative pharyngitis and tender enlarged posterior cervical lymphadenopathy. His spleen is also enlarged. Rapid strep screen is negative. Which of the following is the most appropriate next step in diagnosis?

- A. Throat culture
- B. Repeat strep screen in 24 hours
- C. Mono spot
- D. Serology for anti-EBV antibodies
- E. Trial of amoxicillin

Answer Explained

Symptoms of mono include fatigue, sore throat, swollen lymph nodes, and fever. Enlargement of the spleen and inflammation of the liver may also occur. More specific blood tests, such as the **mono spot** and heterophile antibody tests, can confirm the diagnosis of mono. *AM J Med* 109.7(2000): 531.

14.) A postmenopausal woman reports vaginal soreness and painful intercourse. Pelvic examination reveals thin, pale vaginal walls. No malodorous discharge, cervical motion tenderness or vulvar lesions are noted. Wet prep is negative. Which of the following is the most likely diagnosis?

- A. Atrophic vaginitis
- B. Bacterial vaginosis
- C. Cervicitis
- D. Endometrial carcinoma
- E. Uterine prolapse

Answer Explained

A woman may experience one or several of these symptoms of **atrophic vaginitis**, to varying degrees: vaginal dryness, pain during sex (dyspareunia), changes in appearance of the labia and vagina (it looks paler and thinner), irritation when wearing certain clothes such as tight jeans or when doing certain activities, and an increase in urinary tract infections. MediLexicon, Intl., 20 May. 2010. Web.

15.) A patient with type 2 diabetes and hypertension should be treated with which agent??

- A. Alpha blocker
- B. Beta blocker
- C. Calcium channel blocker
- D. ACE Inhibitor
- E. Hydrochlorothiazide

Answer Explained

Hypertension is a common comorbidity in patients with diabetes, and adequate control of blood pressure significantly reduces the risk of macrovascular and microvascular complications. Patients with diabetes should achieve a target blood pressure of less than 130/80 mm Hg. The use of **angiotensin-converting enzyme inhibitors (ACE)** may slow progression to kidney failure and cardiovascular mortality; these agents are the preferred therapy for managing coexisting diabetes and hypertension. Am Fam Physician. 2008 Dec 1; 78(11):1277-1282.

16.) Which of the following statements about depression and cardiovascular disease is NOT correct??

- A. Screening for depression is recommended for secondary prevention in patients with STEMI
- B. SSRIs generally should be avoided in older patients with cardiac conditions
- C. Depression after an acute coronary event increases the risk of future cardiovascular events and death
- D. About 20 percent of patients with myocardial infarction develop major depression
- E. All the above are correct

Answer Explained

Selective serotonin reuptake inhibitors (SSRIs) and venlafaxine are preferred to other antidepressants because of their positive profile as regards side effects. More specifically, the action of SSRIs involves an increase in serotonin in the receptors, a reduction in platelet activation, and a restoration of heart rate variability. These drugs show a low anticholinergic effect and almost zero arrhythmogenesis. *Hellenic J Cardiol* 2010; 51: 142-152.

17.) Which of the following causes of pneumonia is most likely to be complicated by diarrhea?

- A. Pneumococcal
- B. Mycoplasma
- C. Fungal
- D. Legionella
- E. Tuberculosis

Answer Explained

Although the pneumonia affects the lungs, **Legionnaires'** disease (which is caused by **Legionella**) is accompanied by symptoms that affect other areas of the body. About half the victims experience diarrhea and a quarter have nausea and vomiting and abdominal pain. *World of Microbiology and Immunology*, ©2003 Gale Cengage.

18.) A patient complains of burning retrosternal pain after eating a large meal. Bending over aggravates his symptoms. The history is consistent with which diagnosis?

- A. Acute cholecystitis
- B. Angina pectoris
- C. Esophageal spasm
- D. Peptic ulcer
- E. Gastroesophageal reflux disease

Answer Explained

Factors that contribute to the development of **reflux esophagitis** include the caustic nature of the refluxate, the inability to clear the refluxate from the esophagus, the volume of gastric contents, and local mucosal protective functions. The main symptom of reflux esophagitis is heartburn, with or without regurgitation of gastric contents into the mouth, which worsens on bending over. Health Encyclopedia – Diseases and Conditions.

19.) A 55-year-old male comes in for a physical and his urinalysis reveals hematuria. He denies any symptoms but has smoked a pack of cigarettes daily for the past 32 years. What is the next most appropriate step?

- A. CBC and chemistry profile
- B. Pelvic and abdominal CT scan
- C. Retrograde pyelography
- D. Cystoscopy and biopsy
- E. Intravenous urogram

Answer Explained

Most patients present with unexplained hematuria (gross or microscopic). Some patients present with anemia, and hematuria is detected during evaluation. Bladder cancer is suspected clinically. Urine cytology, which may detect malignant cells, may be done. **Cystoscopy and biopsy** of abnormal areas are usually also done initially because these tests are needed even if urine cytology is negative. The Merck Manual.

20.) Most long bones show a fine white line located near the end of the bone on X-rays. What does this correspond to?

- A. Haversian canal
- B. Intramembranous bone
- C. Medullary cavity
- D. Epiphyseal disc scar
- E. Periosteal membrane

Answer Explained

The epiphyses is the end of a long bone that is originally separated from the main bone by a layer of cartilage but later becomes united to the main bone through ossification. This process results in an **epiphyseal disc scar**. Farlex Medical Dictionary.

21.) A 60-year-old patient complains of significant right eye pain with decreased vision in that eye for 4 hours. She also notes a mild headache and nausea. Which of the following will you most likely see on exam?

- A. Hyphema
- B. Conjunctivitis
- C. Moderately dilated, nonreactive pupil
- D. Cotton wool spots
- E. Normal eye exam

Answer Explained

Closed-angle glaucoma accounts for less than 10% of glaucoma cases in the United States, but as many as half of glaucoma cases in other nations (particularly Asian countries). About 10% of patients with closed angles present with acute angle closure crises characterized by sudden ocular pain, seeing halos around lights, red eye, very high intraocular pressure (>30 mmHg), nausea and vomiting, suddenly decreased vision, and a **fixed, mid-dilated pupil**. It is also associated with an oval pupil in some cases. Acute angle closure is an emergency. Merck.com. Retrieved 2011-01-24.

22.) Which of the following is not a diagnostic criteria of metabolic syndrome?

- A. High Triglycerides
- B. Low HDL
- C. High LDL
- D. Fasting Hyperglycemia
- E. Hypertension

Answer Explained

This constellation of metabolic risk factors is strongly associated with type 2 diabetes mellitus or the risk for this condition. The metabolic risk factors consist of atherogenic dyslipidemia (elevated triglycerides and apolipoprotein B, **numerous small LDL particles**, and low HDL cholesterol [HDL-C] concentrations), elevated blood pressure, elevated plasma glucose, a prothrombotic state, and a proinflammatory state. December 2005 issue of Critical Pathways in Cardiology .

23.) Which laboratory finding is the hallmark for acute myelogenous leukemia?

- A. Auer rods
- B. Heinz bodies
- C. Hirano bodies
- D. Howell-Jolly bodies
- E. Philadelphia chromosome

Answer Explained

The presence of **Auer rods** in myeloid blasts is considered a hallmark of acute myeloid leukemia. Low Blast Count Myeloid Disorders With Auer Rods, A Clinicopathologic Analysis of 9 Cases Monte S. Willis, MD, PhD,¹ Robert W. McKenna, MD,¹ LoAnn C. Peterson, MD,² James E. Coad, MD,³ and Steven H. Kroft, MD¹ .

24.) Which one of the following SSRIs used to treat PMS and PMDD should be avoided in women of childbearing age without reliable contraception?

- A. Citalopram (Celexa)
- B. Fluoxetine (Prozac)
- C. Sertraline (Zoloft)
- D. Paroxetine (Paxil)
- E. None of the above

Answer Explained

In 2005, the US FDA listed **Paroxetine (Paxil)** as pregnancy category D based on studies demonstrating increased risk of major congenital heart defects from first-trimester exposure. US Food and Drug Administration. MedWatch safety alerts. Paroxetine HCl-Paxil and generic paroxetine. December 2005. <http://www.fda.gov/Safety/MedWatch/ucm152062.htm>. Accessed May 14, 2011.

25.) A 25-year-old type 1 diabetic on insulin T1D presents with the following blood sugars:
bedtime = 94 mg/dL 3:00 am = 50 mg/dL 7:00am = 220 mg/dL.

Which of the following is the most likely cause?

- A. Dawn phenomenon
- B. Insulin resistance
- C. Somogyi effect
- D. Primary hypoglycemia
- E. Insulin allergy

Answer Explained

Somogyi effect is a rebound phenomenon occurring in diabetes: overtreatment with insulin induces hypoglycemia, which initiates the release of epinephrine, ACTH, glucagon, and growth hormone, which stimulate lipolysis, gluconeogenesis, and glycogenolysis, which, in turn, result in a rebound hyperglycemia. Farlex Medical Dictionary.

26.) Schizoid personality is characterized by all the following EXCEPT

- A. Avoidance of close relationship with others
- B. Inability to express aggression
- C. Autistic thinking
- D. Double personality
- E. Shy, obedient childhood

Answer Explained

Schizoid personality disorder (SPD) is a personality disorder characterized by a lack of interest in social relationships, a tendency towards a solitary lifestyle, secretiveness, emotional coldness, and apathy. Affected individuals may simultaneously demonstrate a rich, elaborate and exclusively internal fantasy world (**double personality**). Ball, Jeff. "Schizoid Personality Disorder". Psychological Care & Healing Treatment Center. 12/18/2010.

27.) A 42-year-old female comes to the Urgent Care because of increasing shortness of breath. Vital signs reveal she is afebrile with respirations of 22, blood pressure 130/90 and heart rate 100 and regular. Physical exam of the chest reveals decreased fremitus with a prolonged expiration phase and low diaphragms. Which of the following is the most likely diagnosis?

- A. Pneumothorax
- B. Acute asthma attack
- C. Pleural effusion
- D. Atelectasis
- E. Lobar pneumonia

Answer Explained

Asthma is predominantly a disease of inflammation with superimposed bronchospasm, leading to air trapping. As such, the normally resonant thorax becomes hyperresonant, reflecting the less dense quality of the air-filled thoracic tissue, and tactile fremitus is diminished. Additional asthma findings include prolonged expiration phase and hyperinflation reported on the chest x-ray. Prolonged inspiration phase of respiration is usually found in upper airway obstruction such as epiglottitis or tonsillar abscess. Tactile fremitus is typically increased when there is increased lung tissue density in conditions including pneumonia with consolidation.

28.) A 60-year-old female smoker complains of weight loss and progressive dysphagia. Which of the following diagnosis is the most consistent with the history?

- A. Achalasia
- B. Esophageal varices
- C. Esophageal cancer

D. Mallory-Weiss tear

E. Zenker's diverticulum

Answer Explained

Signs and symptoms of **esophageal cancer** include difficulty swallowing (dysphagia), weight loss without trying, chest pain/pressure/burning, fatigue, frequent choking while eating, indigestion, heartburn, coughing or hoarseness.

<http://www.mayoclinic.com/health/esophagealcancer/DS00500/DSECTION=symptoms>.

29.) A cardinal manifestation of the nephrotic syndrome is

A. Granular casts

B. Proteinuria

C. Pyuria

D. Hematuria

E. Anuria

Answer Explained

Nephrotic syndrome is characterized by high protein excretion, peripheral edema, and metabolic abnormalities. **Proteinuria** in nephrotic syndrome is due to increased permeability of the glomerular basement membrane to albumin and arises in response to alterations in both the size and charge barriers of the glomerular filtration apparatus. Albumin is the predominant protein excreted. Am Fam Physician – 15-NOV-2009; 80(10): 1129-34.

30.) A 39-year-old female corporate secretary is evaluated for a 2-month history of proximal interphalangeal and wrist joint swelling and pain. Her joints are stiffer in the morning. She reports that her grandma had something similar. Physical exam shows symmetrical synovitis of the MCP, wrist and knee joints. Lab results show: Hemoglobin 10.9 g/dL, Rheumatoid Factor negative, ANA negative. What is the most likely diagnosis?

A. Osteoarthritis

B. Psoriatic arthritis

C. Calcium pyrophosphate deposition disease

D. Rheumatoid Arthritis

E. Systemic Lupus Erythematosus

Answer Explained

Early **rheumatoid arthritis** tends to affect your smaller joints first — particularly the joints that attach your fingers to your hands and your toes to your feet. As the disease progresses, symptoms often spread to the knees, ankles, elbows, hips, and shoulders. In most cases, symptoms occur in the same joints on both sides of your body. If a member of your family has rheumatoid arthritis, you may have an increased risk of the disease. There is no one test or physical finding to confirm the diagnosis. Mayo Clinic; Ferri's Clinical Advisor 2011.

31.) A 25-yo man presents with nasal obstruction, mild facial pain, and a low-grade fever lasting more than one week. He has no drug allergies. Which of the following antibiotics is considered first-line therapy?

A. Cefuroxime (Ceftin)

B. Azithromycin (Zithromax)

C. Amoxicillin

D. Levofloxacin (Levaquin)

E. Amoxicillin/clavulanate (Augmentin)

Answer Explained

The standard first-line antibiotic treatment for acute uncomplicated bacterial sinusitis is a 10 – 14-day course of **Amoxicillin**.

http://www.umm.edu/patiented/articles/how_acute_sinusitis_treated_000062_8.htm#ixzz2DklfrVoa.

32.) A 27-year-old female comes to the Urgent Care with complaints of palpitations. She feels that her heart rate has been speeding up and then slowing down for approximately the past 6 hours. She denies any caffeine intake or significant stress. On ECG you find a variable heart rate with normal P, QRS and T waves. The PR interval is 0.12 seconds and the P to QRS ratio is 1:1. The R-to-R interval does appear to accelerate and then decelerate during the normal respiratory cycle. Which of the following is the most likely diagnosis?

A. Sinus arrhythmia

- B. Atrial fibrillation
- C. Atrial flutter
- D. First degree heart block
- E. Premature junctional contractions

Answer Explained

Respiratory sinus arrhythmia (RSA) is a naturally occurring variation in heart rate that occurs during a breathing cycle. Heart rate increases during inhalation and decreases during exhalation. A term frequently used to describe a normal heart rhythm in which the heart rate varies by more than 10 beats in a minute. equimedcorp.com/patient-resources/information/glossary/.

33.) A college student with suspected meningitis undergoes a lumbar puncture. The CSF reveals an elevated white blood cell count of 5,000/mcl with > 90% neutrophils, decreased glucose level of 30 mg/d, and elevated protein level of 150 mg/dL. What is the most likely diagnosis?

- A. Bacterial meningitis
- B. Viral meningitis
- C. Fungal meningitis
- D. Tuberculosis meningitis
- E. Aseptic meningitis

Answer Explained

A suspected case of **bacterial meningitis** when CSF examination shows at least one of the following: turbid appearance; leukocytosis (> 100 cells/mm³); leukocytosis (10-100 cells/mm³) AND either an elevated protein (> 100 mg/dl) or decreased glucose (< 40 mg/dl.) World Health Organization: <http://www.who.int/en/>.

34.) All of the following are associated with being pregnant EXCEPT

- A. Breast tenderness

- B. Increased urinary frequency
- C. Quickening
- D. Vaginal erythema
- E. Softening of the cervix

Answer Explained

Breast tenderness is often the first sign of pregnancy for many women. Quickening is defined as the first time you feel your baby move. Since your uterus puts pressure on your bladder most heavily in the third trimester, this means you'll probably have to go to the bathroom more than you ever did before. **Vaginal erythema** is not associated with pregnancy. www.babyzone.com; www.webmd.com.

35.) An 8-day post op CABG patient has lower extremity edema, elevated JVD that does not fall with inspiration, a positive Kussmaul sign and reduced mitral inflow velocities with inspiration. What do you think he has?

- A. Kawasaki disease
- B. Pulmonary hypertension
- C. Constrictive pericarditis
- D. Hypertrophic cardiomyopathy
- E. Pleural effusion

Answer Explained

Constrictive pericarditis is most commonly caused by conditions or events that cause inflammation to develop around the heart, including heart surgery, radiation therapy and tuberculosis. A physical exam may show that your neck veins stick out, suggesting increased blood pressure in the area. This is called Kussmaul's sign. The doctor may note weak or distant heart sounds when listening to your chest with a stethoscope. The physical exam may also reveal liver swelling and fluid in the belly area. Lower extremity edema is common. Textbook of Cardiovascular Medicine. 9th ed. Philadelphia, Pa: Saunders Elsevier; 2011:chap 75.

36.) A 6-year-old boy is brought in by his mom with a very pruritic rash for the past week. There are excoriations on the boy's lower abdomen, buttocks, and hands with red papules. A few small burrows are noted. What is the most likely diagnosis and treatment plan?

- A. Seborrheic dermatitis, steroid cream
- B. Dyshidrotic eczema, antiparasitics
- C. Seborrheic dermatitis, antihistamines
- D. Pityriasis rosea, antihistamines
- E. Scabies, antiparasitics

Answer Explained

Scabies produces a skin rash composed of small red bumps and blisters and affects specific areas of the body. Scabies may involve the webs between the fingers, the wrists and the backs of the elbows, the knees, around the waist and umbilicus, the axillary folds, the areas around the nipples, the sides and backs of the feet, the genital area, and the buttocks. Textbook descriptions of scabies always mention "burrows" or "tunnels." Medicine Net.Com 5% permethrin cream: This is the most common treatment for scabies. <http://www.aad.org/skin-conditions/dermatology-a-to-z/scabies/diagnosis-treatment>.

37.) A 60-year-old man with history of chronic bronchitis presents with 3 days of increased dyspnea and cough with purulent sputum production. Which medication is NOT warranted for treatment at this time?

- A. Systemic corticosteroids
- B. Albuterol
- C. Domiodol
- D. Antibiotic
- E. Theophylline

Answer Explained

Theophylline

While therapy with short bursts of high-dose parenteral steroids is a mainstay of hospital management of acute exacerbations, rapid dosage reduction to the lowest oral dosage possible for long-term management is necessary to minimize long-term side effects. Inhaled ipratropium bromide (Atrovent) and sympathomimetic agents are for most patients the mainstays of therapy to provide relief of bronchospasm. Sympathomimetic agents such as albuterol (Proventil, Ventolin) provide more rapid bronchodilation. Antibiotics are probably helpful only in acute exacerbations of chronic bronchitis. <http://www.aaafp.org/afp/1998/0515/p2365.html>. Mucomyst is used to treat chronic bronchitis. Mucomyst contains the medicine N-acetylcysteine which thins or loosens mucus in the airways or breathing tubes, making it easier to cough up. <http://www.patienthealthinternational.com/content/product/mucomyst>

38.) Excruciating abdominal pain, profound shock, abdominal distention, and some abdominal rigidity and agonizing back pain are most characteristic of

- A. Acute appendicitis
- B. Aortic aneurysm
- C. Ruptured corpus luteum
- D. Biliary colic
- E. Renal colic

Answer Explained

The symptoms of **aortic aneurysm** include pain in the abdomen or back — severe, sudden, persistent, or constant. The pain may spread to the groin, buttocks, or legs. Symptoms include clammy skin, dizziness, nausea/vomiting, rapid heart rate and shock. *Ann Intern Med.* 2007; 146:735-741.

39.) All of the following are signs and symptoms of aortic stenosis EXCEPT

- A. Angina
- B. Syncope
- C. Systolic murmur
- D. Hemoptysis

E. Dyspnea

Answer Explained

Hemoptysis

Aortic valve stenosis signs and symptoms typically develop when narrowing of the valve is severe and can include chest pain (angina) or tightness, feeling faint or fainting with exertion, shortness of breath, especially with exertion, fatigue, especially during times of increased activity, heart palpitations and heart murmur. <http://www.mayoclinic.com/health/aortic-valve-stenosis/DS00418/DSECTION=symptoms>.

40.) A 30-year-old female presents with thickened skin, telangiectasias, loss of normal skin folds and fingertip ulcerations. She denies any constitutional symptoms, fever, arthritis, muscle weakness, or other symptoms. Which of the following is the most likely diagnosis?

- A. Rheumatoid arthritis
- B. Polymyalgia rheumatica
- C. Wegener granulomatosis
- D. Scleroderma (systemic sclerosis)
- E. Reactive arthritis (reiter syndrome)

Answer Explained

Skin involvement in **systemic sclerosis** can include hair loss, calcium deposits, open sores, swelling, gangrene, changes in skin color, itching, small mouth, swollen or hardened skin on fingers or elsewhere, loss of skin folds and dry skin. Telangiectasias may appear on the hands or face. Systemic scleroderma and Raynaud's can cause painful ulcers on the fingers or toes, which are known as digital ulcers. Sclero.org.

41.) A patient with newly diagnosed macular degeneration comes in for a 3 month follow up exam. On fundoscopic exam you see tiny to small yellowish round spots with hard edges. This is most consistent with?

- A. Cotton wool spots
- B. Drusen

C. Normochromic macrocytic anemia

D. AV nicking

E. Papilledema

Answer Explained

Drusen are tiny yellow or white deposits in a layer of the retina called Bruchs membrane. They are the most common early sign of dry age-related macular degeneration. Drusen are made up of lipids. <http://www.amd.org/what-is-amd/dry-amd/119-drusen.html>.

42.) An opening snap is heard in

A. Aortic stenosis

B. Aortic regurgitation

C. Mitral stenosis

D. Mitral regurgitation

E. Tricuspid regurgitation

Answer Explained

Opening Snap of **mitral stenosis**: you can hear the opening snap near the cardiac apex, but more easily appreciate it along the lower left sternal border. Tension in the mitral leaflets and delayed opening of the valve causes a high frequency opening snap in early diastole. The timing of the opening snap is important as it indicates the severity of the lesion. texasheartinstitute.org and Auscultation.com.

43.) A patient with left-sided extremity weakness and right-sided weakness of the face has a lesion in the

A. Cerebellum

B. Brainstem

C. Cerebral hemisphere

D. Basal ganglia

E. Cervical spine

Answer Explained

If weakness of a limb is associated with lower facial weakness on the same side, the problem is above the **brainstem**. If there is weakness of muscles on one side of the head and opposite limb, then a lesion in the brainstem is suggested. Monrad-Krohn, G.H. and Refsum, S.: The Clinical Examination of the Nervous System, ed. 12, London, H.K. Lewis & Co.

44.) A 39-year-old male policeman comes to the clinic complaining of fatigue for the past 6 months. He admits to often having a headache and states his wife notes he is more irritable. He has started taking afternoon naps despite getting 8 hours of sleep nightly. On examination, he is mildly overweight with a normal heart rate, blood pressure, temperature, thyroid size, and resting oxygen saturations. Which of the following tests should be considered?

- A. Echocardiogram
- B. Pulmonary function tests
- C. Electrocardiogram
- D. Polysomnography
- E. Electroencephalogram

Answer Explained

Polysomnography, also called a sleep study, is a test used to diagnose sleep disorders. Polysomnography records your brain waves, the oxygen level in your blood, heart rate and breathing, as well as eye and leg movements during the study. Mayo Clinic.

45.) What is the recommended treatment for a patient admitted to the hospital with an exacerbation of multiple sclerosis symptoms?

- A. Blood transfusion
- B. Methylprednisolone
- C. Interferon
- D. Baclofen

E. Oxygen and IV fluids

Answer Explained

Acute attacks of MS are usually treated with glucocorticoids. Three-to-seven-day courses of intravenous **methylprednisolone**, 500 to 1000 mg daily, with or without a short prednisone taper, are used most commonly. UpToDate.

46.) Which is the best initial treatment for a pregnant woman who was just bitten by a black widow spider?

A. Hospital admission for symptomatic care

B. Antivenom

C. IV steroids

D. Antibiotic

E. Incision and drainage of the area

Answer Explained

When pregnant women have been bitten by a black widow, it can result in contractions or early labor. According to the American Family Physician, pregnant women should be **hospitalized** for observation following a black widow bite for risk of threatened abortion.

<http://www.aafp.org/afp/2007/0315/p869.html>.

47.) A 40-year-old male presents for evaluation of sleep apnea. Polysomnography reveals numerous apneic episodes each lasting over 30 seconds throughout the night, and all are associated with decreased oxygen saturations. Exam shows no evidence of deviated septum. Which of the following is the first-line treatment for this patient?

A. Increased reticulocyte count

B. Antidepressants

C. Nasal septoplasty

D. Continuous positive airway pressure

E. Decreased reticulocyte count

Answer Explained

Nasal **CPAP** is the preferred treatment for all sleep disordered breathing including snoring, upper airway resistance syndrome and obstructive sleep apnea.

<http://health.ucsd.edu/specialties/sleep/Pages/treatment.aspx>.

48.) A patient was recently treated with a course of clindamycin and now complains of abdominal pain and persistent, foul-smelling, watery diarrhea since she finished the course of antibiotics. Which of the following pathogens most likely is responsible for her new symptoms?

- A. *Giardia lamblia*
- B. *Cryptosporidium parvum*
- C. *Saccharomyces boulardii*
- D. *Clostridium difficile*
- E. *Clostridium perfringens*

Answer Explained

The antibiotics that most often lead to **C. difficile** infections include fluoroquinolones, cephalosporins, clindamycin and penicillins. www.mayoclinic.com/health/c-difficile.

49.) Overstimulation of the parasympathetic nervous system would result in which of the following?

- A. Mydriasis
- B. Bradycardia
- C. Blood vessel constriction
- D. Decreased peristalsis
- E. Decreased salivary gland secretions

Answer Explained

Over-stimulation of the parasympathetic nervous system can result in low blood pressure, **bradycardia**, and fatigue. <http://lifeforcetampa.com/Autonomic-Nervous-System>.

50.) A 31-year-old rodeo rider comes into the ER complaining of left foot drop, severe exacerbation of lower back pain with some radiation into the left lateral calf, and urinary retention for the past 24 hours. Which of the following should be immediately evaluated?

- A. Cauda equina syndrome
- B. Myofascial back pain
- C. Left sacroiliitis
- D. Lumbar spondylosis without myelopathy
- E. Lumbar degenerative disk disease without herniation

Answer Explained

It may be hard to diagnose **cauda equina syndrome**. Symptoms vary and may come on slowly. They also mimic other conditions. Frequent symptoms include: severe low back pain; pain, numbness, or weakness in one or both legs that causes you to stumble or have trouble getting up from a chair; loss of or altered sensations in your legs, buttocks, inner thighs, backs of your legs, or feet that is severe or gets worse and worse; you may experience this as trouble feeling anything in the areas of your body that would sit in a saddle (called saddle anesthesia); recent problem with bladder or bowel function, such as trouble eliminating urine or waste (retention) or trouble holding it (incontinence). <http://www.webmd.com>.

51.) A migrant farm worker presents to the clinic with a 4-week worsening pruritic rash on his upper extremities and interdigital spaces. Exam reveals excoriated, erythematous papules with numerous tiny tracts spreading from the papules. What is the most appropriate treatment?

- A. Prednisone
- B. Permethrin
- C. Ceftriaxone
- D. Acyclovir

E. Fluconazole

Answer Explained

Irritated skin often appears as a rash and skin sores that look like tiny curving tracks. These symptoms are a result of the mite tunneling under the upper layers of the skin. Symptoms are most likely to develop between the fingers and on the palm side of the wrists, on the outside surfaces of the elbows, and in the armpits. Prescription **permethrin**, such as Elimite cream, is the most used medicine to treat scabies. <http://www.webmd.com/skin-problems-and-treatments/tc/scabies>.

52.) Which one of the following statements about the use of antihypertensive agents in patients with coronary artery disease is correct?

A. Beta blockers should be avoided because they increase heart rate and decrease diastolic filling

B. Angiotensin receptor-blockers are preferred over angiotensin-converting enzyme inhibitors because of their more favorable adverse effect profile

C. Calcium channel blockers are preferred as a first-line agent because of their more favorable adverse effect profile, compared to beta blockers

D. Beta blockers are the recommended first-line anti-hypertensive agent

E. None of the above

Answer Explained

Beta blockers have many uses in medicine, chief among these is in the treatment of patients with coronary artery disease (CAD). The benefits provided by beta blockers have made them the drugs of first choice in treating patients with CAD. angina.<http://heartdisease.about.com/od/coronaryarterydisease/a/betablockers.htm>.

53.) A patient presents to the ER with stroke symptoms including homonymous hemianopsia of the right half

A. Middle cerebral artery

B. Anterior cerebral artery

C. Anterior cerebral artery

D. Internal carotid artery

E. Temporal artery

Answer Explained

Patients with **middle cerebral artery (MCA)** stroke syndrome may have some basic physical findings, as follows. Superior division infarcts lead to contralateral deficits with significant involvement of the upper extremity and face and partial sparing of the contralateral leg and foot. Inferior division infarcts of the dominant hemisphere lead to Wernicke aphasia. Such infarcts on either side yield a superior quadrantanopsia or homonymous hemianopia, depending on the extent of infarction. Right inferior branch infarcts also may lead to a left visual neglect. Finally, resultant temporal lobe damage can lead to an agitated and confused state.

<http://emedicine.medscape.com>.

54.) A 48-year-old male develops mild to moderate shortness of breath postoperative day 3 after a complete hip replacement. He denies any cough, hemoptysis, or chest pain. Vital signs are all within normal limits, and his lung sounds are clear without wheezes, rales, or rhonchi. Diagnostics reveal a normal CXR and ECG, but chest CT shows a thrombus in the left pulmonary artery. Which of the following is the best management option?

A. Start IV heparin or subcutaneous low-molecular weight heparin

B. Start thrombolytic therapy

C. Insert inferior vena cava filter

D. Obtain bilateral lower extremity ultrasound

E. Start warfarin therapy

Answer Explained

Pulmonary embolism is a blockage of the main artery of the lung or one of its branches by a substance that has traveled from elsewhere in the body through the bloodstream (embolism). Treatment is typically with anticoagulant medication, including **heparin** and warfarin. Harrison's Principles of Internal Medicine (16th ed.). New York, NY: McGraw-Hill. pp. 1561–65.

55.) A 46-year-old female just moved to your town and comes to the clinic with an active migraine headache. She was diagnosed 10 years ago with migraines by a Neurologist. Three months ago, the patient underwent coronary artery bypass surgery. Which medication is contraindicated in this patient?

- A. Propranolol
- B. Sumatriptan
- C. Oxycodone
- D. Ibuprofen
- E. Droperidol

Answer Explained

Do not take Treximet (generic **Sumatriptan**) if you are scheduled to have, or have recently undergone, heart bypass (CABG) surgery. <http://www.pdrhealth.com>. Some of the cardiovascular effects might be severe, including life endangering arrhythmias, Prinzmetal angina pectoris or myocardial infarction. Sumatriptan should not be used in patient with coronary artery disease. http://ic.steadyhealth.com/side_effects_of_sumatriptan.html.

56.) Which of the following is associated with hyperelastic skin and poor wound healing?

- A. Porphyria
- B. Xeroderma pigmentosum
- C. Dermatomyositis
- D. Ehlers-Danlos syndrome
- E. Sweet's syndrome

Answer Explained

Ehlers-Danlos syndromes are a group of disorders which share common features including easy bruising, joint hypermobility (loose joints), skin that stretches easily (skin hyperelasticity or laxity), and weakness of tissues. http://www.medicinenet.com/ehlers-danlos_syndrome/article.htm.

57.) A patient has dull, almost inaudible breath sounds, and decreased tactile fremitus in the right hemithorax. Which of the following would frequently cause these findings?

- A. Atelectasis of the right lower lobe

- B. Right tension pneumothorax
- C. Pneumonia in the right posterior basilar segment
- D. Right pleural effusion
- E. Pulmonary emphysema

Answer Explained

Based on the limited number of studies, dullness to percussion and tactile fremitus are the most useful findings for pleural effusion. Dull chest percussion makes the probability of a **pleural effusion** much more likely but requires a chest radiograph to confirm the diagnosis. When the pretest probability of pleural effusion is low, the absence of reduced tactile vocal fremitus makes pleural effusion less likely so that a chest radiograph might not be necessary depending on the overall clinical situation. JAMA. 2009 May 20; 301(19):1989.

58.) A 46-year-old obese woman complains of RUQ pain and nausea with vomiting that started after eating a large fatty meal. Which of the following is the most appropriate test to confirm the diagnosis?

- A. Complete blood count
- B. CT scan
- C. Flat and upright radiographs
- D. Serum bilirubin
- E. Ultrasound

Answer Explained

Risk factors for the formation of cholesterol gallstones include the following: female gender, being overweight, age > 40, losing a lot of weight quickly on a “crash” or starvation diet, or taking certain medications such as birth control pills or cholesterol lowering drugs. The most common symptom is pain in the right upper part of the abdomen. The pain usually starts within 30 minutes after a fatty or greasy meal. **Ultrasound** is the best test to examine the gallbladder for stones. <http://emedicine.medscape.com/article/774352-overview>.

59.) The hepatojugular reflux can be used as a sign of

- A. Ascites
- B. Portal hypertension
- C. Chronic hepatitis with cirrhosis
- D. Right ventricular failure
- E. Aortic aneurysm

Answer Explained

The hepatojugular reflux sign is useful in diagnosing **right ventricular failure**. Am J Med 2000 Jul;109(1):59-61.

60.) A 70-year-old woman is evaluated for a 4-week history of aching bilateral pain and morning stiffness around the proximal muscles of her arms, shoulders, and hips. She does not have a rash, neck pain, visual symptoms, cough, headache, or jaw stiffness or claudication. Although her muscles are sore, she does not have weakness. Her physical exam is unremarkable. ROM is good throughout. Lab studies reveal a ESR of 55 mm/h. Which of the following is the most appropriate management currently?

- A. Ibuprofen
- B. Acetaminophen with codeine
- C. Corticosteroid injection into the glenohumeral joint
- D. Amitriptyline and aerobic exercise program
- E. Prednisone

Answer Explained

Polymyalgia rheumatica is an inflammatory disorder that causes muscle pain and stiffness. The pain and stiffness often occur in your shoulders, neck, upper arms, and hips. Symptoms of polymyalgia rheumatica usually begin quickly, within two weeks. Most people who develop polymyalgia rheumatica are older than 65. It rarely affects people younger than 50. Anti-inflammatory drugs called **corticosteroids** improve the symptoms of polymyalgia rheumatica,

but these drugs require careful monitoring for serious side effects.
<http://www.mayoclinic.com/health/polymyalgia-rheumatica/DS00441>.

61.) Which of the following is the most common cause of tinnitus?

- A. Antibiotics
- B. Salicylates
- C. Normochromic macrocytic anemia
- D. Steroids
- E. Tranquilizers

Answer Explained

Aspirin contains **salicylate**, and its effect of temporarily aggravating or causing tinnitus has been known about for many years. Salicylate is recognized as an ototoxic drug. It can induce reversible hearing loss and tinnitus, probably by its action on the outer hair cell system of the cochlea (inner ear). It sometimes causes side-effects such as ringing in the ears, nausea, stomachache, dizziness, and sweating. You will only suffer permanent damage if you take large doses for quite a long time. In most cases, tinnitus caused by aspirin disappears once you stop taking the aspirin. <http://vestcollective.ca/aspirin-tinnitus.php>.

62.) The first ECG sign of hyperkalemia is usually

- A. Prolonged PR interval
- B. Widening of the QRS complex
- C. Normochromic macrocytic anemia
- D. Tall, peaked T waves
- E. Flat and inverted T waves

Answer Explained

The first ECG sign of hyperkalemia is **peaked T waves** and usually appears once K level go around 6 meq/L. Emerg Med J 2002; 19:74-77.

63.) A 32-year-old female complains of dizziness and vertigo when she rolls out of bed in the morning. She denies previous trauma or medical problems. On exam, you note lateral nystagmus. What treatment should be performed next?

- A. MRI of the brain
- B. Fluid challenge
- C. Meclizine
- D. Repositioning maneuvers
- E. Lumbar puncture

Answer Explained

Benign paroxysmal positional vertigo is characterized by brief episodes of mild to intense dizziness. Symptoms of benign paroxysmal positional vertigo are triggered by specific changes in the position of your head, such as tipping your head up or down, and by lying down, turning over, or sitting up in bed. You may also feel out of balance when standing or walking. To help relieve benign paroxysmal positional vertigo (BPPV), your doctor, audiologist or physical therapist may treat you with a series of movements known as the canalith **repositioning procedure**. <http://www.mayoclinic.com/health/vertigo/DS00534>.

64.) Presence of which of the following differentiates polycystic ovarian syndrome from metabolic syndrome?

- A. Insulin resistance
- B. Elevated serum estrogen
- C. Reduced serum testosterone
- D. Elevated serum luteinizing hormone
- E. Low serum LDL cholesterol

Answer Explained

Elevated serum luteinizing hormone - The emphasis doctors place on the ratio of luteinizing hormone (LH) to follicle stimulating hormone (FSH) varies. Most pre-menopausal women have a ratio close to 1:1. In PCOS, the LH level may rise above the FSH, sometimes significantly. Any

case where the LH is higher may be suggestive of PCOS and further investigation may be warranted. Some doctors say that an LH: FSH greater than 2:1 or 3:1 indicates PCOS. <http://www.inciid.org/faq.php?cat=infertility101&id=2#80>.

65.) A patient started on an Angiotensin-converting enzyme inhibitor (ACE-I) should be counseled to

- A. Look for signs of angioedema in 6-8 months
- B. Take the medication with milk
- C. Avoid taking with Tylenol
- D. Avoid pregnancy
- E. Prepare for an increased risk of atrial fibrillation

Answer Explained

Avoid pregnancy - In pregnant women, ACE inhibitors taken during the first trimester have been reported to cause major congenital malformations, stillbirths, and neonatal deaths. Laurence L. Brunton, ed. (2006). "Chapter 30. Renin and Angiotensin – Edwin K. Jackson". Goodman & Gilman's The Pharmacological Basis of Therapeutics. McGraw-Hill.

66.) A 28-year-old male notes a non-painful mass on his upper back that has grown slowly over the past 6 months. He denies trauma or other medical problems. On exam, you note a 5 cm firm but very mobile subcutaneous mass without redness or skin changes. What is the most likely diagnosis?

- A. Melanoma
- B. Hemangioma
- C. Lipoma
- D. Keratoacanthoma
- E. Epidermoid cyst

Answer Explained

A **lipoma** is a slow-growing, fatty lump that's most often situated between your skin and the underlying muscle layer. Often a lipoma is easy to identify because it moves readily with slight finger pressure. It's doughy to touch and usually not tender. You may have more than one lipoma. Lipomas can occur at any age, but they're most often detected during middle age. <http://www.mayoclinic.com/health/lipoma/DS00634>.

67.) Which type of lung cancer is typically centrally located?

- A. Adenocarcinoma
- B. Bronchoalveolar
- C. Mesothelioma
- D. Large cell
- E. Squamous cell

Answer Explained

Squamous cell carcinoma (SCC) of the lung is more common in men than in women. It is closely correlated with a history of tobacco smoking, more so than most other types of lung cancers. It most often arises centrally in larger bronchi, and while it often metastasizes to locoregional lymph nodes (particularly the hilar nodes) early in its course, it generally disseminates outside the thorax somewhat later than other major types of lung cancer. Tobacco Control 17 (3): 198–204.

68.) A patient is diagnosed with Barrett's esophagus. The endoscopic exam showed which of the following?

- A. Esophageal varices
- B. Peptic stricture
- C. Columnar epithelium-lined lower esophagus
- D. Schatzki's ring
- E. Squamous cell carcinoma

Answer Explained

Barrett's esophagus refers to an abnormal change (metaplasia) in the cells of the inferior portion of the esophagus. A positive diagnosis generally requires observing specific macroscopic and microscopic changes. The normal squamous epithelium lining of the esophagus is replaced by metaplastic columnar and goblet cells. **Columnar epithelium** refers to a cell type that is typically found in more distal parts of the gastrointestinal system. Only the presence of goblet cells equates a diagnosis of Barrett esophagus. *Dysphagia* 8 (3): 276–88.

69.) A 25-year-old female has week long diarrhea from enteritis. Which of the following is the best indicator of hypovolemia?

- A. Serum sodium level
- B. Urine specific gravity
- C. Central venous pressure
- D. Orthostatic hypotension
- E. Resting heart rate

Answer Explained

Orthostatic hypotension is a condition of abnormal blood pressure regulation upon standing. The blood pressure dramatically decreases, more than 20/10 mm Hg, when rising from a lying down or sitting position to a standing position. Orthostatic hypotension has several causes. Hypovolemia is the most common cause.

<http://www.bidmc.org/YourHealth/ConditionsAZ.aspx?ChunkID=34315>.

70.) A patient with rheumatoid arthritis is started on Methotrexate. Which of the following should be advised?

- A. Eat a high-purine diet
- B. Avoid antacids
- C. Have annual bone marrow examination
- D. Have liver function tests and a complete CBC at least every 12 weeks
- E. Have thyroid function tests every 4 weeks

Answer Explained

It's important to have **liver function tests and a complete CBC at least every 12 weeks** to look for any liver-related side effects. Methotrexate can cause abnormal liver function. Current Medical Diagnosis and Treatment 2017

71.) The most important clinical method of evaluating the severity of the hypertensive process is

- A. The level of the diastolic pressure
- B. The level of the BUN
- C. Ophthalmoscopic examination
- D. The plasma renin concentration
- E. The level of the systolic pressure

Answer Explained

Because hypertension can cause damage to the blood vessels in the eyes, the eyes may be checked with an instrument called an **ophthalmoscope**. The physician will look for thickening, narrowing, or hemorrhages in the blood vessels. <http://medical-dictionary.thefreedictionary.com/hypertension>.

73.) Which of the following is NOT a condition caused by AIDS?

- A. Primary CNS lymphoma
- B. Hypertrophic Cardiomyopathy
- C. Pneumocystis jiroveci pneumonia
- D. Kaposi's sarcoma
- E. Esophagitis

Answer Explained

Hypertrophic cardiomyopathy: Most cases have a genetic origin, caused by a few possible genotypic abnormalities. A variant form of the gene encoding the β -cardiac myosin heavy chain

is the most commonly identified cause. Certain mutations may be associated with an increased risk of sudden death. Dilated cardiomyopathy is associated with HIV. Am J Med - 01-AUG-2008; 121(8): 674-81.

74.) A woman who was started on an oral medication for ovarian stimulation presents to the ER with a sharp pain in her pelvis and light, persistent vaginal bleeding. On exam, a right adnexal mass is palpated. Which of the following is the most likely diagnosis?

- A. Ectopic pregnancy
- B. Endometrial carcinoma
- C. Endometriosis
- D. Pelvic inflammatory disease
- E. Uterine prolapse

Answer Explained

There is an increased chance of **ectopic pregnancy** (including tubal and ovarian sites) in women who conceive following CLOMID therapy. products.sanofi.ca/en/clomid.pdf.

75.) A 30-year-old female presents with a 15 hour history of palpitations, dyspnea and extreme anxiety and irritability. She notes a 7 lb unintentional weight loss over the past 3 weeks. On exam, her skin is warm and moist, and she has a fine tremor in both hands. ECG reveals atrial fibrillation. What is your diagnosis?

- A. Anorexia nervosa
- B. Panic disorder
- C. Hyperparathyroidism
- D. Thyrotoxicosis
- E. Hypothyroidism

Answer Explained

Major clinical signs of **thyrotoxicosis** include weight loss (often accompanied by an increased appetite), anxiety, intolerance to heat, hair loss, muscle aches, weakness, fatigue, hyperactivity,

irritability, hypoglycemia, apathy, polyuria, polydipsia, delirium, tremor, pretibial myxedema, and sweating. In addition, patients may present with a variety of symptoms such as palpitations and arrhythmias (the notable ones being atrial fibrillation), shortness of breath (dyspnea), loss of libido, amenorrhea, nausea, vomiting, diarrhea, gynecomastia, and feminization. "Gynecomastia as a presenting feature of thyrotoxicosis". *Postgrad Med J.* 882 (75): 229–31.

76.) A 23-year-old female is out of control according to her mom. She states that over the past few weeks, her daughter has not been sleeping and has been spending money recklessly. She has also been fired from 3 jobs in the past 3 months. On exam, you notice the daughter's pressured speech, lack of focus and distractibility. Which of the following is the most likely diagnosis?

- A. Avoidant disorder
- B. Schizophrenia
- C. Generalized anxiety disorder
- D. Histrionic disorder
- E. Bipolar disorder

Answer Explained

Bipolar symptoms include euphoria or irritability, excessive talk; racing thoughts, inflated self-esteem, unusual energy; less need for sleep, impulsiveness, a reckless pursuit of gratification (shopping sprees, impetuous travel, more and sometimes promiscuous sex, high-risk business investments, fast driving). WebMD.com/bipolar.

77.) A 30-year-old man presents with a history of recurrent pneumonia and a chronic cough producing foul-smelling, purulent sputum, occasionally blood-tinged, which is worse in the morning and on lying down. On exam, you find clubbing of the fingers and inspiratory rales in both bases. What is the diagnosis?

- A. Chronic Bronchitis
- B. Bronchiectasis
- C. Tuberculosis
- D. Pulmonary neoplasm

E. COPD

Answer Explained

The most common signs and symptoms of **bronchiectasis** include a cough which occurs daily for months, or even years; the cough may get worse when lying on one side; enormous amounts of sputum (phlegm, spit) are produced daily. The sputum may contain mucus, trapped particles, and even pus; the sputum may be foul-smelling; wheezing; shortness of breath; clubbing – the flesh under the fingernails and toenails become thicker. The nails curve downward and are shaped like the round part of an upside-down spoon; abnormal lung sounds (when listened to with a stethoscope). <http://www.medicalnewstoday.com/releases/185765.php>.

78.) Colonoscopy reveals hundreds of polyps varying in size and configuration throughout the colon and rectum. Which of the following is the most likely diagnosis?

- A. Benign lymphoid polyps
- B. Familial adenomatous polyposis
- C. Hyperplastic polyps
- D. Inflammatory polyps
- E. Lipomas

Answer Explained

Patients with **familial adenomatous polyposis coli** (FAP) experience the growth of hundreds to thousands of polyps (an abnormal mushroom-shaped growth of tissue) in the lower intestine (including the colon and rectum). Growth of polyps may be seen in a patient's upper intestine as well. The number of polyps usually increases with age, and they typically grow from 1-2 to 4-5 millimeters in size. Brosens LA, Keller JJ, Offerhaus GJ, et al. Prevention and management of duodenal polyps in familial adenomatous polyposis. *Gut*. 2005 Jul;54(7):1034-43.

79.) Which of the following conditions are indications for nephrology referral in patients with chronic kidney disease?

- A. Anemia of Chronic Kidney Disease
- B. Uncontrolled hyperkalemia
- C. Stage 3 Chronic Kidney Disease

D. A & B

E. All the above

Answer Explained

Indications for Nephrology referral for CKD include acute, complex, or severe cardiovascular disease, **anemia of CKD**, Bone and mineral disorder of CKD, Difficult to manage adverse effects of medications, **hyperkalemia** (> 5.5 despite treatment), Refractory proteinuria, resistant hypertension, Stage 4 CKD or unexplained decrease in estimated GFR (>30% over 4 months) National Kidney Foundation. K/DOQI clinical practice guidelines for chronic kidney disease: evaluation, classification, and stratification. AM J Kidney Dis. 2002;39(2 suppl 1):S1-S266.

80.) An injury in which a ligament is torn is termed

A. sprain

B. strain

C. avulsion

D. contracture

E. fracture

Answer Explained

A **sprain** is a stretching or tearing of ligaments — the tough bands of fibrous tissue that connect one bone to another in your joints. The most common location for a sprain is in your ankle.

<http://www.mayoclinic.com/health/sprains-and-strains/DS00343>.

81.) Following thyroidectomy, hoarseness of the voice may occur due to damage of the

A. Vocal cords

B. Phrenic nerve

C. Thyroarytenoid muscle

D. Internal laryngeal nerve

E. Recurrent laryngeal nerve

Answer Explained

Recurrent laryngeal nerves innervate the vocal cords and if injured would cause hoarseness.

82.) Subacute bacterial endocarditis (SBE) is most commonly caused by

- A. Streptococcus faecalis
- B. Proteus mirabilis
- C. Staphylococcus epidermidis
- D. Streptococcus viridans
- E. Haemophilus influenzae

Answer Explained

Streptococcus viridans.

83.) A patient with a sustained reticulocytosis, an elevated bilirubin level, and a rapid aggravation of the anemia most likely has which of the following?

- A. Aplastic anemia
- B. Folic acid deficiency
- C. Iron deficiency
- D. Hemorrhagic anemia
- E. Hemolytic anemia

Answer Explained

Hemolytic anemia involves the following: Abnormal and accelerated destruction of red cells, increased breakdown of hemoglobin resulting in increased bilirubin and hyperplasia with accelerated production of red cells, reflected by reticulocytosis, and slight macrocytosis in peripheral blood anemias. Current Medical Diagnosis and Treatment 2009 By Stephen J. McPhee, Maxine A. Papadakis page (436).

84.) A 38-year-old pregnant woman is in her 11th week of gestation. She presents with nausea, vomiting and uterine bleeding. On exam, a larger uterus is noted than expected for the 11th week of gestation. An ultrasound reveals a snowstorm appearance, an enlarged uterus, and a lack of fetus. What is the diagnosis?

- A. Ectopic pregnancy
- B. Hemorrhage
- C. Hydatidiform mole
- D. Spontaneous abortion
- E. Intrauterine infection

Answer Explained

Molar pregnancies usually present with painless vaginal bleeding. The uterus may be larger than expected, or the ovaries may be enlarged. There may also be more vomiting than would be expected. The diagnosis is strongly suggested by ultrasound, but definitive diagnosis requires histopathological examination. On ultrasound, the mole resembles a bunch of grapes (“cluster of grapes” or “honeycombed uterus” or “snow-storm”). Aust N Z J Obstet Gynaecol 23 (2)103–7.

85.) All of the following are signs/symptoms of hypothyroidism EXCEPT

- A. Bradycardia
- B. Constipation
- C. Cold intolerance
- D. Weight loss
- E. Carpal tunnel syndrome

Answer Explained

Hypothyroidism signs and symptom may include: fatigue, increased sensitivity to cold, constipation, dry skin, unexplained weight gain (not **weight loss**), heavier than normal or irregular menstrual periods, thinning hair, slowed heart rate and depression.

<http://www.mayoclinic.com/health/hypothyroidism/DS00353/DSECTION=symptoms>.

86.) Bupropion (Wellbutrin) is contraindicated for treatment in which of the following conditions?

- A. Anorexia nervosa
- B. Binge eating disorder
- C. Obesity
- D. Bulimia nervosa
- E. Body dysmorphic disorder

Answer Explained

Bupropion (Wellbutrin) is contraindicated for treatment of **anorexia nervosa** because it may exacerbate the anorexic condition and lower the seizure threshold for patients with anorexia.

87.) The most common cause of croup is

- A. Bacterial
- B. Viral
- C. Mycoplasma pneumoniae
- D. Foreign body
- E. Decreased reticulocyte count

Answer Explained

Croup may be caused by **viral infection** (most common); bacterial infection; allergies; breathing in something that irritates your airway; acid reflux

<http://www.nlm.nih.gov/medlineplus/ency/article/000959.htm>.

88.) The iliopsoas sign is useful in making the diagnosis of

- A. Regional ileitis
- B. Ulcerative colitis
- C. Acute cholecystitis

D. Appendicitis

E. Acute salpingitis

Answer Explained

Iliopsoas sign is right lower-quadrant pain that is produced with either the passive extension of the patient's right hip (patient lying on left side, with knee in flexion) or by the patient's active flexion of the right hip while supine. The pain elicited is due to inflammation of the peritoneum overlying the iliopsoas muscles and inflammation of the psoas muscles themselves.

Straightening out the leg causes pain because it stretches these muscles, while flexing the hip activates the iliopsoas and therefore also causes pain. A positive Iliopsoas sign is an indication of **appendicitis**. Am J Med Sci (92): 321–46.

89.) Impotence in males is most commonly caused by

A. Phimosis

B. Psychological factors

C. Vitamin A deficiency

D. Vasectomy

E. Condoms

Answer Explained

Psychological factors are responsible for about 20% of all cases of erectile dysfunction. In some cases, the psychological effects of ED may stem from childhood abuse or sexual trauma. However, the most common psychological causes of ED include stress, anxiety, depression, indifference, and low self-esteem. WebMD.

90.) A 28-year-old woman is evaluated for pain in her arms and legs of 7 years duration that has recently worsened. She denies fever, rash, or weight loss. She admits to increasing fatigue. On exam, there is mild interosseous muscle wasting but no synovitis, swelling or warmth. ROM is good throughout. Positive reproducible pain is noted to palpation of trapezius muscles, bicipital tendons, lateral epicondyles, and gluteal muscles. Lab studies are all normal. What is your initial management?

A. Start methotrexate

- B. Start low-dose amitriptyline
- C. Start prednisone
- D. Start aspirin
- E. Start ibuprofen

Answer Explained

The sore points over the body are noticeable in specific areas, such as on the outer side of the elbows, top of the shoulders, upper part of the front of the chest, inner side of the knees, etc. For a definitive diagnosis to be made, many experts say there should be at least eight tender sites present on the body. Amitriptyline and Fluoxetine are two commonly prescribed medications in fibromyalgia. **Amitriptyline** must be started at a low dose and slowly built up to the required level. <http://www.netdoctor.co.uk/diseases/facts/fibromyalgia.htm#ixzz2lY8j9Hle>.

91.) Which of the following is a common cause of conductive hearing loss in an adult?

- A. Diabetes mellitus
- B. Otosclerosis
- C. Head trauma
- D. Inflammation of cranial nerve VIII
- E. Cerumen impaction

Answer Explained

Common causes of conductive hearing loss are **cerumen impaction** and otitis externa. Merck Manual.

92.) A patient taking nicotinic acid complains of hot flashes and pruritus after ingestion. What do you recommend?

- A. Take niacin with orange juice
- B. Take niacin every other day
- C. Take aspirin before niacin

- D. Take Benadryl after niacin
- E. Take fish oil with niacin

Answer Explained

Niacin frequently causes flushing, itching, and tingling about 20 minutes after swallowing it. Some doctors suggest taking a **low-dose aspirin 30 minutes before niacin** to diminish the hot flashes. <http://www.peoplespharmacy.com/2012/04/09/niacin-side-effects-hot-flashes-are-nasty/>.

93.) The expansion of erythema around a tick bite by *Borrelia burgdorferi* is called

- A. Erysipelas
- B. Erythema toxicum neonatorum
- C. Erythema chronicum migrans
- D. Erythema multiforme
- E. Erythema nodosum

Answer Explained

Erythema chronicum migrans refers to the rash often (though not always) seen in the early stage of Lyme disease. It can appear anywhere from one day to one month after a tick bite. This rash does not represent an allergic reaction to the bite, but rather an actual skin infection with the Lyme bacteria, *Borrelia burgdorferi sensu lato*. "The clinical assessment, treatment, and prevention of Lyme disease, Human Granulocytic Anaplasmosis, and Babesiosis: Clinical Practice Guidelines by the Infectious Diseases Society of America". *Clin. Infect. Dis.* 43 (9): 1089–134.

94.) The most frequent cause of amenorrhea in young female adults is

- A. Primary Ovarian Failure
- B. Hypothyroidism
- C. Pituitary failure
- D. Psychoneurosis

E. Pregnancy

Answer Explained

The single most common cause of secondary amenorrhea in reproductive age group women is **pregnancy**. McIver B, Romanski SA, Nippoldt TB Evaluation and Management of Amenorrhea, Mayo Clinic Proc 1997; 72: 1161-1169..

95.) A diabetic with severe peripheral vascular disease undergoes amputation of his foot. The tissues of the surgically removed foot will most likely show which of the following?

- A. Carcinoma
- B. Gangrenous necrosis
- C. Caseous necrosis
- D. Fat necrosis
- E. Hemosiderosis

Answer Explained

The primary cause of **gangrene** is reduced blood supply to the affected tissues, which results in cell death. Diabetes and long-term smoking increase the risk of suffering from gangrene. "Gangrene – Causes". NHS Health A–Z. National Health Service.

96.) Zoloft (sertraline) is being prescribed for a patient with depression. Which of the following should she be advised to avoid taking?

- A. Omega-3 fish oil
- B. Spinach
- C. Ginseng
- D. St. John's wort
- E. Aluminum-containing antacids

Answer Explained

St. John's wort increases a brain chemical called serotonin. Some medications for depression also increase the brain chemical serotonin. Taking St. John's wort along with these medications for depression might increase serotonin too much and cause serious side effects including heart problems, shivering, and anxiety. Do not take St. John's wort if you are taking medications for depression. <http://www.webmd.com>.

97.) In the postoperative period, which of the following complications occurs earliest?

- A. Parotitis
- B. Pulmonary embolus
- C. Atelectasis
- D. Pneumonia
- E. Wound disruption

Answer Explained

The highest incidence of post-operative complications is between 1 and 3 days after the operation. However, specific complications occur in the following distinct temporal patterns: early post-operative, several days after the operation, throughout the post-operative period, and in the late post-operative period. General post-operative complication occurring immediately: Primary hemorrhage, **basal atelectasis**: minor lung collapse, hock: blood loss, acute myocardial infarction, pulmonary embolism or septicemia and low urine output: inadequate fluid replacement intra- and post-operatively. Arch Surg. 2003 Jun;138(6):596-602.

98.) Iron absorption occurs in which part of the intestine?

- A. Stomach
- B. Duodenum
- C. Jejunum
- D. Ileum
- E. Colon

Answer Explained

The stomach absorbs mainly alcohol and some drugs. The small intestine is broken into three sections: the duodenum, jejunum, and ileum respectively. The **duodenum** absorbs primarily calcium, magnesium, iron, fat-soluble vitamins, and some glucose. The jejunum absorbs fat, sucrose, glucose, lactose, fat-soluble vitamins A & D, water-soluble vitamins B, and certain proteins and amino acids. The ileum absorbs water-soluble vitamins like folic acid and B12. The large intestine absorbs water, potassium, and sodium chloride. wiki.answers.com.

99.) While reviewing a nuclear scan of the testicles for swelling, you notice a doughnut sign. This is a classic finding on imaging for

- A. Testicular atrophy
- B. Orchitis
- C. Testicular cancer
- D. Epididymitis
- E. Testicular torsion

Answer Explained

Testicular torsion has a classic doughnut sign on nuclear medicine testicular scan due to increased uptake of tracer surrounding a photopenic testicle.

100.) Acute hematogenous osteomyelitis is most commonly caused by

- A. Staph aureus
- B. Strep pneumoniae
- C. Staph epidermidis
- D. Haemophilus influenzae
- E. Pseudomonas aeruginosa

Answer Explained

Acute osteomyelitis is the clinical term for a new infection in bone. This infection occurs predominantly in children and is often seeded hematogenously. In adults, osteomyelitis is usually a subacute or chronic infection that develops secondary to an open injury to bone and

surrounding soft tissue. The specific organism isolated in bacterial osteomyelitis is often associated with the age of the patient or a common clinical scenario (i.e., trauma or recent surgery). **Staphylococcus aureus** is implicated in most patients with acute hematogenous osteomyelitis. Am Fam Physician. 2001 Jun 15;63(12):2413-2421.

101.) A 66-year-old man presents to the ER complaining of frequent nosebleeds. What is the most like site of acute epistaxis?

- A. Superior turbinate
- B. Septum
- C. Maxillary sinus
- D. Frontal sinus
- E. Inferior turbinate

Answer Explained

Anterior nosebleeds make up more than 90% of all nosebleeds. The bleeding usually originates from a blood vessel on the nasal **septum**, where a network of vessels converges (Kiesselbach plexus). http://www.emedicinehealth.com/nosebleeds/article_em.htm.

102.) All of the following are cardiovascular consequences of hyperthyroidism except

- A. Increased myocardial contractility
- B. Increased heart rate
- C. Increased left ventricular afterload
- D. Increased myocardial oxygen consumption
- E. Increased cardiac output

Answer Explained

Increased left ventricular afterload - Thyroid hormone has important effects on cardiac muscle, the peripheral circulation, and the sympathetic nervous system that alter cardiovascular hemodynamics in a predictable way in patients with hyperthyroidism. The main changes are increases in heart rate, cardiac contractility, systolic and mean pulmonary artery pressure,

cardiac output, diastolic relaxation, and myocardial oxygen consumption and reductions in systemic vascular resistance and diastolic pressure.

<http://www.uptodate.com/contents/cardiovascular-effects-of-hyperthyroidism>

103.) Which of the following is not a vitamin K dependent factor?

A. IX

B. II

C. X

D. VII

E. XII

Answer Explained

XII - The vitamin K – dependent coagulation proteins are synthesized in the liver and comprise factors II, VII, IX, and X, which have a hemostatic role (i.e., they are procoagulants that arrest and prevent bleeding), and proteins C and S, which have an anticoagulant role (i.e., they inhibit the clotting process). <http://www.fao.org>

104.) Hyperemesis gravidarum is a serious complication of pregnancy and can cause

A. Severe liver damage

B. Dehydration

C. Acidosis

D. Depression

E. All of the above

Answer Explained

All of the above - If inadequately treated, HG can cause dehydration causing ketosis, renal failure, central pontine myelinolysis, coagulopathy, atrophy, Mallory–Weiss syndrome, hypoglycemia, liver damage with jaundice, malnutrition, Wernicke’s encephalopathy, pneumomediastinum, rhabdomyolysis, deconditioning, deep vein thrombosis, pulmonary

embolism, splenic avulsion, and vasospasms of cerebral arteries. Depression is a common secondary complication of HG. *Obstet Gynecol.* 107 (2 Pt 1): 285–92

105.) A patient in Addisonian crisis may exhibit

- A. Hypertension
- B. Marked hyponatremia
- C. Marked hypokalemia
- D. Hypopigmentation
- E. Nervousness

Answer Explained

Addisonian crisis, also commonly referred to as adrenal crisis, occurs when the cortisol produced by the adrenal glands is insufficient to meet the body's acute needs. **Hyponatremia** occurs in both primary and secondary adrenal insufficiency, although it has different causes. *QJM* 2000;93:323–33. [PubMed]

106.) Tricyclic antidepressants should be avoided in patients with

- A. Senile Dementia
- B. Urinary retention
- C. Depression
- D. Sleep disturbance
- E. Fibromyalgia

Answer Explained

Side effects of cyclic antidepressants vary somewhat from medication to medication. They can include drowsiness, dry mouth, blurred vision, constipation, **urinary retention**, dizziness, delayed orgasm and low sex drive, particularly in men, decreased heart rate, disorientation or confusion, low blood pressure, which can cause lightheadedness, increased appetite, fatigue, headache, light sensitivity and seizures. [http://www.mayoclinic.com/\[toggle\]](http://www.mayoclinic.com/[toggle])

107.) You diagnose obstructive sleep apnea in a patient with a body mass index of 35 kg/m². Which one of the following is recommended as the primary treatment?

- A. Uvulopalatoplasty
- B. Positive airway pressure
- C. Oxygen therapy
- D. Protriptyline
- E. Oral appliances fitted to move the mandible forward

Answer Explained

Continuous Positive Airflow Pressure (CPAP) is the most common treatment for moderate to severe obstructive sleep apnea. http://www.helpguide.org/life/sleep_apnea.htm

108.) Pseudomembranous enterocolitis develops in a 29-year-old woman during a 3-week course of clindamycin therapy for sinusitis. The most likely pathogen causing this condition is

- A. Clostridium tetani
- B. Vibrio cholerae
- C. Yersinia pestis
- D. Rotavirus
- E. Clostridium difficile

Answer Explained

People in good health don't usually get sick from **C. difficile**. Your intestines contain millions of bacteria, many of which help protect your body from infection. But when you take an antibiotic to treat an infection, the drug can destroy some of the normal, helpful bacteria as well as the

bacteria causing the illness. Without enough healthy bacteria, *C. difficile* can quickly grow out of control. The antibiotics that most often lead to *C. difficile* infections include fluoroquinolones, cephalosporins, clindamycin and penicillins.

<http://www.mayoclinic.com/health/c-difficile/DS00736/DSECTION=causes>

109.) Which medication may help a female patient with a small kidney stone stuck in the ureter?

- A. Atenolol
- B. Flomax/Tamsulosin
- C. Vasopressin
- D. Lasix/Furosemide
- E. Hydrochlorothiazide

Answer Explained

Kidney stones also restrict the flow of fluid in the urinary tract. However, taking **Flomax** can assist in passing stones because when it relaxes the smooth muscle, water can pass through more easily. This may reduce the pain of passing kidney stones and speed up their exit from the body. http://www.ehow.com/how-does_4967565_flomax-work-kidney-stones_.html

110.) Which of the following should be checked for a patient with recurrent attacks of gout to determine the primary factor that determines whether probenecid or allopurinol should be prescribed?

- A. 24-hour urinary excretion of uric acid
- B. Serum uric acid
- C. Urinary pH after overnight fast
- D. Urinary osmolality after overnight fast
- E. 24-hour urinary protein

Answer Explained

A **24-hour urine uric acid** collection may help distinguish overproduction from underexcretion (>800 mg of uric acid/24 hours indicates overproduction). This information determines medical treatment of recurrent gout attacks. *Kidney Int.* 2001;60:266-271.

111.) A 3-day old infant presents with bilateral conjunctival hyperemia, mild swelling and nonpurulent discharge. Which one of the following is the most common etiology of this condition?

- A. Chemical conjunctivitis
- B. Herpes simplex virus
- C. *Chlamydia trachomatis*
- D. *Neisseria gonorrhoeae*
- E. *Staphylococcus aureus*

Answer Explained

The three main etiologies of neonatal conjunctivitis include chemical, bacterial (*C. trachomatis* most common), and viral. ***Chlamydia trachomatis*** presentation may range from mild hyperemia with scant mucoid discharge to eyelid swelling, chemosis, and pseudomembrane formation. *Ophthalmic Epidemiol.* 2009 Nov-Dec;16(6):337-45.

112.) What pathophysiologic mechanism is the most common cause of chronic mitral regurgitation?

- A. Rheumatic fever
- B. Bacterial endocarditis
- C. Congenital anomalies
- D. Myxomatous degeneration
- E. Bicuspid valve

Answer Explained

The most common causes of mitral regurgitation in the United States are **myxomatous degeneration**, chordal rupture, rheumatic heart disease, infective endocarditis, coronary artery disease, and cardiomyopathy. <http://www.clevelandclinicmeded.com>.

113.) Which pathogen is responsible for causing Lyme disease?

- A. *Rickettsia rickettsii*
- B. *Coxiella brunetti*
- C. *Bartonella henselae*
- D. *Borrelia burgdorferi*
- E. *Coxiella burgdorferi*

Answer Explained

In the United States, Lyme disease is caused by the bacterium ***Borrelia burgdorferi***, which is carried primarily by deer ticks. <http://www.mayoclinic.com>.

114.) A 24-year-old woman presents with amenorrhea after several months of irregular menstrual periods. She is obese with some hirsutism. Physical exam findings include abundant cervical mucus associated with normal estrogen levels, and bilateral enlarged ovaries of irregular size. What is the diagnosis?

- A. Polycystic ovary syndrome
- B. Ectopic pregnancy
- C. Bilateral salpingitis
- D. Intrauterine pregnancy
- E. Pelvic inflammatory disease

Answer Explained

Early symptoms of **PCOS** include few or no menstrual periods. This can range from less than nine menstrual cycles in a year (more than 35 days between cycles) to no menstrual periods. Some women with PCOS have regular periods but are not ovulating every month; Heavy, irregular vaginal bleeding; Hair loss from the scalp and hair growth (hirsutism) on the face, chest, back, stomach, thumbs, or toes; Acne and oily skin, caused by high androgen levels; Depression or mood swings; Weight gain or upper body obesity. This is linked to high androgen levels. WebMD.

115.) A patient has a hard nodule on his ear that discharges a small amount of chalky, white crystals. What is most likely diagnosis?

- A. Keloid
- B. Rheumatoid nodule
- C. Tophus
- D. Sebaceous cyst
- E. Lipoma

Answer Explained

Tophus is a Latin word means “stone”, in plural is called tophi is a deposit of monosodium urate crystals in people with longstanding high levels of uric acid in the blood. Tophi are most seen in conjunction with the disease of gout, and most people with tophi have already developed gouty symptoms previously. Even though tophi are most found as hard nodules around the fingers, at the tips of the elbows, and around the big toe, tophi nodules can appear anywhere in the body. They have been reported in unexpected areas such as in the ears, vocal cords, or around the spinal cord. <http://www.odermatol.com>.

116.) A 30-year-old man's girlfriend states he has been very defensive, overly sensitive, and secretive. He admits to not trusting his friends or family and to feeling that everyone is out to hurt me. What is the most likely diagnosis?

- A. Schizoid disorder
- B. Conversion disorder
- C. Narcissistic personality disorder

D. Paranoid personality disorder

E. Major depressive disorder

Answer Explained

People with paranoid personality disorder are highly suspicious of other people. As a result, people with this condition severely limit their social lives. They often feel that they are in danger and look for evidence to support their suspicions. People with this disorder have trouble seeing that their distrustfulness is out of proportion to their environment. Common symptoms include:

Concern that other people have hidden motives

Expectation that they will be exploited by others

Inability to work together with others

Social isolation

Detachment

Hostility PubMed

117.) A 78-year-old male with 40 pack-year history of smoking comes to the clinic for chronic daily sputum production that has been blood tinged for the past 2 weeks. He denies any fever or chills but does admit to losing 15 lbs. in the past 6 months unintentionally. On examination he has bilateral expiratory wheezes, and clubbing is noted of his fingers. Chest X-ray reveals a large right hilar mass. Which of the following if also found with this patient suggests that the tumor is a small cell lung carcinoma?

A. Syndrome of inappropriate antidiuretic hormone secretion

B. Cushing's syndrome

C. Hyperaldosteronism

D. Hypothyroidism

E. Hyperparathyroidism

Answer Explained

Symptoms of small cell lung cancer can include:

Persistent cough

Coughing up blood (hemoptysis)

Swelling in the face and neck

Shortness of breath

Wheezing

Repeated episodes of pneumonia or bronchitis

Hoarseness

Fatigue

Unexplained weight loss Clubbing (rounding) of the fingernails; Lung tumors, especially small cell carcinoma, produce SIADH ectopically. <http://www.ncbi.nlm.nih.gov>.

118.) Passage of bulky, pale, greasy, frothy, foul-smelling stools is characteristic of

- A. Malabsorption syndromes
- B. Crohn's disease
- C. Giardiasis
- D. Food allergies
- E. Ulcerative colitis

Answer Explained

Malabsorption syndrome refers to a number of disorders in which nutrients from food are not absorbed properly in the small intestine. Malabsorption causes diarrhea, weight loss, and bulky, greasy, extremely foul-smelling stools. Merck Manual.

119.) An outpatient with pyelonephritis should be treated with

- A. Penicillin
- B. Erythromycin
- C. Ciprofloxacin
- D. Doxycycline
- E. Vancomycin

Answer Explained

Outpatient oral antibiotic therapy with a **fluoroquinolone** is successful in most patients with mild uncomplicated pyelonephritis. <http://www.aafp.org>.

120.) Infants who are breastfed without vitamin D supplementation are at an increased risk of which one of the following conditions?

- A. Hypercalcemia
- B. Rickets
- C. Hypouricemia
- D. Dwarfism
- E. Anemia

Answer Explained

Rickets is a disorder caused by a lack of vitamin D, calcium, or phosphate. It leads to softening and weakening of the bones. PubMed.

121.) A patient has chronic nasal blockage and rhinorrhea especially with changes in the outdoor temperature, alcohol intake and stress. Cultures and MRI are negative. What is the most likely diagnosis?

- A. Allergic rhinitis
- B. Vasomotor rhinitis

C. Rhinitis Medicamentosa

D. Obstructive rhinitis

E. Pseudomonal rhinitis

Answer Explained

Vasomotor rhinitis is characterized by prominent symptoms of nasal obstruction, rhinorrhea, and congestion. These symptoms are excessive at times and are exacerbated by certain odors (e.g., perfumes, cigarette smoke, paint fumes, inks); alcohol; spicy foods; emotions; and environmental factors such as temperature, barometric pressure changes, and bright lights. Patients with vasomotor rhinitis are further divided into two subgroups: “runners,” who demonstrate “wet” rhinorrhea; and “dry” patients, who exhibit nasal obstruction and airflow resistance with minimal rhinorrhea. <http://www.aafp.org>.

122.) All of the following are causes of Secondary Hypertension EXCEPT

A. Genetics

B. Pheochromocytoma

C. Cushing's disease

D. Aortic coarctation

E. Pregnancy

Answer Explained

Secondary hypertension (secondary high blood pressure) is high blood pressure that's caused by another medical condition. Secondary hypertension differs from the usual type of high blood pressure (essential hypertension), which is often referred to simply as high blood pressure. Essential hypertension, also known as primary hypertension, has no clear cause and is thought to be linked to **genetics**, poor diet, lack of exercise and obesity. <http://www.mayoclinic.com>.

123.) Red blood cell stippling (basophilic stippling) on a blood smear is indicative of

A. Iron deficiency

B. Sickle cell disease

- C. Lead poisoning
- D. Leukemia
- E. Thalassemia

Answer Explained

Basophilic stippling of red blood cells (BSC) has been noted in **lead intoxication** since 1899 and has been considered a classic laboratory sign of lead poisoning since that time.

<http://www.ncbi.nlm.nih.gov>.

124.) A woman has two children. Her first child was born premature. She has also had one abortion. Which of the following describes this woman's reproductive history?

- A. G2P2111
- B. G3P1112
- C. G2P3112
- D. G3P3112
- E. G2P1113

Answer Explained

Gravid – the number of times a woman's been pregnant. Parity, or births divided into 4 parts TPAL = term, preterm, abortions, living children ex: **G3P1112** could indicate a woman has been pregnant 3 times, had 1 term birth, 1 preterm birth (or miscarriage), 1 abortion, and has 2 living children. tricky ex: G2P1002 could indicate a woman has been pregnant twice (and is currently pregnant), has given birth once to twins at term, and has 2 living children
http://www.ohsubooks.com/objectives/index.php?title=Examining_the_Obstetrical_Patient#Links_.26_References.

125.) Which of the following results from hypersecretion of growth hormone in a 30-year-old female?

- A. Cushing's disease
- B. Addison's disease

- C. Myxedema
- D. Acromegaly
- E. Dwarfism

Answer Explained

Acromegaly is a long-term condition in which there is too much growth hormone, and the body tissues get larger over time. Acromegaly occurs in about 6 of every 100,000 adults. It is caused by abnormal production of growth hormone after the skeleton and other organs finish growing. <http://www.ncbi.nlm.nih.gov/pubmedhealth/PMH0001364/>.

126.) A 50-year-old man is brought in by ambulance for being confused, constantly moving and on exam he exhibits spasmodic contractions of the facial and neck muscles. Which of the following is this most likely an adverse effect to?

- A. Diazepam
- B. Chlorpheniramine
- C. Haloperidol
- D. Ibuprofen
- E. Nifedipine

Answer Explained

Haloperidol is noted for its strong early and late extrapyramidal side effects. The risk of the face-disfiguring tardive dyskinesia is around 4% per year in younger patients. Other predisposing factors may be female gender, pre-existing affective disorder, and cerebral dysfunction. Akathisia often manifests itself with anxiety, dysphoria, and an inability to remain motionless. Other side effects include dry mouth, lethargy, restlessness of akathisia, muscle stiffness or cramping, restlessness, tremors, Rabbit syndrome, and weight gain; side effects like these are more likely to occur when the drug is given in high doses and/or during long-term treatment. *The American Journal of Psychiatry* 156 (6): 885–90.

127.) The drug of choice for initial treatment of anaphylaxis or anaphylactoid reactions is

- A. Albuterol

- B. Diphenhydramine
- C. Epinephrine
- D. Toradol
- E. Hydrocortisone

Answer Explained

Anaphylaxis is an acute and potentially lethal multi-system allergic reaction. Most consensus guidelines for the past 30 years have held that **epinephrine** is the drug of choice and the first drug that should be administered in acute anaphylaxis.

<http://www.ncbi.nlm.nih.gov/pubmed/18691308>.

128.) A patient has abrupt onset of abdominal pain that has localized to the left lower quadrant. He also reports diarrhea and anorexia. On exam, the patient is febrile, and you are able to palpate a tender mass. WBC count is 19,000 with a left shift. The diagnostic method of choice is

- A. Abdominal X-Rays
- B. Abdominal ultrasound
- C. Computed tomography scan with an oral contrast agent
- D. Sigmoidoscopy
- E. Barium enema

Answer Explained

Computed tomography scan with an oral contrast agent.

129.) Red blood cell casts are found in

- A. Pyelonephritis
- B. Polycystic kidney disease
- C. Transitional cell carcinoma
- D. Interstitial nephritis

E. Glomerulonephritis

Answer Explained

Red blood cells may stick together and form red blood cell casts. Such casts are indicative of **glomerulonephritis**, with leakage of RBC's from glomeruli, or severe tubular damage.
<http://library.med.utah.edu>.

130.) Heberden's nodes are found on the

- A. Metacarpophalangeal joints
- B. Radius and ulna
- C. Terminal interphalangeal joints
- D. Proximal interphalangeal joints
- E. Achilles tendon

Answer Explained

Heberden's nodes are hard or bony swellings that can develop in the **distal interphalangeal joints** (DIP). They are a sign of osteoarthritis and are caused by formation of osteophytes of the articular cartilage in response to repeated trauma at the joint.
<http://www.whonamedit.com/synd.cfm/37.html>.

131.) A patient who underwent hip replacement surgery 6 months ago is scheduled to undergo a dental procedure. She has an allergy to penicillin. You should prescribe

- A. Clindamycin
- B. Azithromycin
- C. Doxycycline
- D. Ciprofloxacin
- E. Metronidazole

Answer Explained

Antibiotic regimens for dental procedures status post prosthetic hip replacement include Amoxicillin. If patient is allergic to Penicillin or Ampicillin, utilize Cephalexin or **Clindamycin**.
aapd.org.

132.) Which medication should be added in patient having stable angina on maximal dosing of beta blockers?

- A. Alpha blockers
- B. Calcium channel blockers
- C. Angiotensin converting enzyme inhibitors
- D. Aldosterone antagonists
- E. Central alpha 2 agonists

Answer Explained

Nitrates or beta blockers are usually preferred for initial treatment of angina, and **calcium channel blockers** may be added if needed. <http://www.uptodate.com/contents/angina-treatment-medical-therapy-beyond-the-basics>.

133.) Which vaccine should be recommended to an 18 year old girl who will be living in a dormitory?

- A. Pneumococcal
- B. Influenzae
- C. Herpes zoster
- D. Bacille Calmette-Guerin
- E. Meningococcal vaccine

Answer Explained

Colleges want to know that their students have been vaccinated against the basics – diphtheria, tetanus, measles, mumps and rubella. But increasingly, they want to know that their students have been inoculated against bacterial **meningitis** too. About.com.

134.) Vaginal discharge is commonly caused by all of the following organisms EXCEPT:

- A. Yeast
- B. Trichomonas
- C. Treponema pallidum
- D. Haemophilus vaginalis
- E. Gonococcus

Answer Explained

Treponema pallidum

135.) Which of the following antihypertensives should never be used in pregnancy?

- A. Nifedipine
- B. Labetalol
- C. Hydralazine
- D. Methyldopa
- E. Captopril

Answer Explained

Captopril has been assigned to pregnancy category D by the FDA for use in the second and third trimesters and to pregnancy category C for use in the first trimester. Animal and human data have revealed evidence of embryoletality and teratogenicity associated with ACE inhibitors. There are no controlled data in human pregnancy. Congenital malformations have been reported with the use of ACE inhibitors during the first trimester of pregnancy, while fetal and neonatal toxicity, death, and congenital anomalies have been reported with the use of ACE inhibitors during the second and third trimesters of pregnancy. If the patient becomes pregnant, captopril should be discontinued as soon as possible. Captopril is considered contraindicated during pregnancy. [drugs.com/pregnancy/captopril](https://www.drugs.com/pregnancy/captopril).

136.) A 50-year-old woman reports a recent onset of irritative dermatitis beneath her pendulous breasts. The lesions are erythematous and confluent, with small, individual papule lesions away from the primary area. The most likely diagnosis is

- A. Psoriasis
- B. Candidiasis
- C. Eczema
- D. Secondary syphilis
- E. Pityriasis rosea

Answer Explained

Candida infection of the skin occurs mostly under pendulous breasts and pannus and in the perineum. The erythematous, pruritic, frequently pustular lesions have a distinct border; smaller satellite lesions provide a clue to the diagnosis of candidiasis.

137.) A patient presents with bronchogenic carcinoma in the apex of the left lung and involvement of the recurrent laryngeal nerve. What symptom would this patient most likely have?

- A. Facial anhidrosis
- B. Glossopharyngeal neuralgia
- C. Hiccups

D. Hoarseness

E. Facial numbness

Answer Explained

Similar problems may also be due to invasion of the nerve by a tumor or after trauma to the neck. A common scenario is paralysis of the left vocal cord due to malignant tumor in the mediastinum affecting the left recurrent laryngeal nerve. The left cord returns to midline where it stays. If the damage is unilateral, the patient may present with voice changes including **hoarseness**. Schwartz's Principles of Surgery (9th ed.). McGraw Hill Professional. pp. 1346–1347.

138.) Which of the following is not a cause of chronic diarrhea?

A. Laxative abuse

B. Staphylococcal infection

C. Crohn's disease

D. Irritable bowel syndrome

E. Malabsorption syndromes

Answer Explained

Staphylococcal food poisoning is an illness of the bowels that causes nausea, vomiting, diarrhea, and dehydration. It is caused by eating foods contaminated with toxins produced by **Staphylococcus aureus** rather than a true infection with the bacteria. Symptoms usually develop within one to six hours after eating contaminated food. The illness usually lasts for one to three days and resolves on its own. Patients with this illness are not contagious since toxins are not transmitted from one person to another.

http://www.medicinenet.com/staph_infection/page2.htm.

139.) During systole, the coronary artery blood flow is

A. Increased

B. Decreased

C. Unchanged

D. Retrograde

E. None of the above

Answer Explained

Decreased - During systole, intramuscular blood vessels are compressed and twisted by the contracting heart muscle and blood flow to the left ventricle is at its lowest.

<http://ceaccp.oxfordjournals.org/content/5/2/61.full>.

140.) A 38-year-old female complains of progressive muscle weakness in her shoulders and upper legs for 6 months. She states this weakness is affecting her ADLs, as she is even having difficulty combing her hair and walking up the stairs. Her lab results show + ANA. What is the most likely diagnosis?

A. Reiter's Arthritis

B. Ankylosing Spondylitis

C. Polymyalgia Rheumatica

D. Myasthenia Gravis

E. Polymyositis

Answer Explained

Polymyositis typically affects the muscles closest to the trunk, particularly those in your hips, thighs, shoulders, upper arms, and neck. The weakness is symmetrical, meaning it involves muscles on both the left and right sides of your body. The disease worsens over time. As muscle weakness progresses, you might find it difficult to climb stairs, rise from a seated position, lift objects, or reach overhead.

<http://www.mayoclinic.com/health/polymyositis/DS00334/DSECTION=symptoms>.

141.) A 25-year-old male comes in complaining of a sinusitis. He symptoms include frontal sinus pressure for the past 4 days. He denies fever, difficult swallowing, or drainage. Radiography Water's view are negative. What is the most appropriate treatment?

A. Antiviral x 10 days

B. Augmentin x 10 days

C. Head MRI

D. Hydration, vaporizer, nasal decongestants

E. ENT referral

Answer Explained

Hydration, vaporizer, nasal decongestants - Nasal irrigation may help with symptoms of sinus pressure. Decongestant nasal sprays containing for example oxymetazoline may provide relief, but these medications should not be used for more than the recommended period. Longer use may cause rebound sinusitis. Other recommendations include applying a warm, moist cloth to the affected areas several times a day; drinking sufficient fluids to thin the mucus; and inhaling low temperature steam two to four times a day. "Sinusitis". A.D.A.M. Medical Encyclopedia. U.S.

142.) Antipsychotics may cause cardiac arrhythmias because they cause

A. Shortened PR interval

B. Prolonged QT interval

C. ST depression

D. U waves

E. Antipsychotics are not associated with causing cardiac arrhythmias

Answer Explained

Recent regulatory and clinical concerns have brought into sharp focus antipsychotic drug induced **QTc interval prolongation**, torsades de pointes, and sudden cardiac death. Several new generation (atypical) antipsychotic drugs have either been withdrawn from clinical use or delayed in reaching the marketplace due to these concerns. Because torsades de pointes is rarely found, QTc interval prolongation serves as a surrogate marker for this potentially life-threatening arrhythmia. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC419299/>.

143.) If Babinski reflex is present, it may be associated with

A. Cerebrovascular accident

B. Spinal cord neoplasm

- C. Multiple sclerosis
- D. All of the above
- E. None of the above

Answer Explained

All the above - When the Babinski reflex is present in a child older than 2 years or in an adult, it is often a sign of a brain or nervous system disorder. Disorders may include Amyotrophic lateral sclerosis, Brain tumor, Meningitis, Multiple sclerosis, Spinal cord injury, defect, or tumor and Stroke. <http://www.nlm.nih.gov/medlineplus/ency/article/003294.htm>.

144.) In acute respiratory arrest, what changes occur in blood gas findings?

- A. Inc O₂, Inc CO₂, Inc pH
- B. Inc O₂, Inc CO₂, Dec pH
- C. Dec O₂, Inc CO₂, Dec pH
- D. Dec O₂, Dec CO₂, Dec pH
- E. Inc O₂, Dec CO₂, Dec pH

Answer Explained

Dec O₂, Inc CO₂, Dec pH - When a patient stops breathing, they are unable to breath in Oxygen and breath off CO₂. Because CO₂ is an acid, this will cause the pH to decrease. [.http://www.globalrph.com/abg_analysis.htm](http://www.globalrph.com/abg_analysis.htm).

145.) Reye's syndrome is characterized by encephalopathy and which of the following conditions?

- A. Hyperthyroidism
- B. Hepatic failure
- C. Subarachnoid hemorrhage
- D. Coronary artery aneurysm formation

E. Emphysema

Answer Explained

Reye's syndrome is a potentially fatal disease that has numerous detrimental effects to many organs, especially the brain and **liver**. The disease causes fatty liver with minimal inflammation and severe encephalopathy. "Reye syndrome" at Dorland's Medical Dictionary.

146.) What is the most common type of melanoma?

A. Nodular

B. Superficial spreading

C. Lentigo maligna melanoma

D. Acral lentiginous melanoma

E. None of the above

Answer Explained

Superficial spreading melanoma is by far the most common type, accounting for about 70 percent of all cases. This is the one most often seen in young people. As the name suggests, this melanoma grows along the top layer of the skin for a long time before penetrating more deeply. <http://www.skincancer.org/skin-cancer-information/melanoma/types-of-melanoma>.

147.) Which of the following is the most likely cause for diminished breath sounds over the right lower lobe with decreased tactile fremitus and dullness to percussion?

A. Pleural effusion

B. Pneumonia

C. Asthma

D. Pneumothorax

E. Hemothorax

Answer Explained

If **pleural effusions** accumulate 300 ml of fluid, there are usually detectable clinical signs in the patient, such as decreased movement of the chest on the affected side, stony dullness to percussion over the fluid, diminished breath sounds on the affected side, decreased vocal resonance and fremitus (though this is an inconsistent and unreliable sign), and pleural friction rub. "Does this patient have a pleural effusion?". JAMA 301 (3): 309–17.

148.) Which of the following best characterizes constipation?

- A. Stools that are difficult to expel
- B. Small stools
- C. Bowel movements less frequent than one per day
- D. Excessively dry, small, or infrequent stools
- E. Hard bloody stools

Answer Explained

Generally, a person is considered to be constipated when bowel movements result in passage of small amounts of **hard, dry stool**, usually fewer than three times a week, but this is only a very approximate standard. Ariahealth.org.

149.) Anxiety may cause all of the following symptoms except

- A. Hemoptysis
- B. Fatigue
- C. Chest discomfort along the left precordium
- D. Dyspnea at rest relieved with activity
- E. Tachycardia

Answer Explained

Hemoptysis - Common anxiety signs and symptoms include feeling apprehensive, feeling powerless, having a sense of impending danger, panic or doom, having an increased heart rate, hyperventilation, sweating, trembling and feeling weak or tired. mayoclinic.com.

150.) Osteoarthritis seldom involves the

- A. Spine
- B. Hip
- C. Knee
- D. Wrist

Answer Explained

In the hand, osteoarthritis most often develops in three sites: at the base of the thumb, where the thumb and **wrist** come together (the trapezio-metacarpal, or basilar, joint), at the end joint closest to the fingertip (the distal interphalangeal or DIP joint) and at the middle joint of a finger (the proximal interphalangeal or PIP joint).

<http://www.assh.org/Public/HandConditions/Pages/ArthritisOsteoarthritis.aspx>.

151.) A 15-year-old boy presents with oval-shaped lesions in varying sizes on his chest and back. One lesion is larger and preceded the others. He has no history of recent illness. What is the most likely diagnosis?

- A. Nummular eczema
- B. Guttate psoriasis
- C. Pityriasis rosea
- D. Varicella
- E. Melanoma

Answer Explained

Pityriasis rosea typically begins with a large, slightly raised, scaly patch “herald patch” on your back, chest, or abdomen. Before the herald patch appears, some people experience a sore throat or fever. A few days to a few weeks after the herald patch appears, you may notice smaller scaly spots across your back, chest or abdomen that resemble a pine-tree pattern. The rash can cause itching, which is occasionally severe.

<http://www.mayoclinic.com/health/pityriasis-rosea/DS00720/DSECTION=symptoms>.

152.) Thiazide diuretics have the side effect of

- A. Peripheral edema
- B. Erectile dysfunction
- C. Angioedema
- D. Angioedema
- E. Hyperuricemia

Answer Explained

Hyperuricemia is a relatively common finding in patients treated with a loop or thiazide diuretic and may, over a period of time, lead to gouty arthritis.

<http://www.uptodate.com/contents/diuretic-induced-hyperuricemia-and-gout>.

153.) A 55-year-old man has persistent back pain radiating down the right lateral leg to the foot. Exam shows decreased right foot dorsiflexion, toe extension, and foot inversion. A lumbosacral radiculopathy affecting which of the following nerves is most likely?

- A. S1
- B. L5
- C. L3
- D. S3
- E. L1

Answer Explained

L5 radiculopathy is the most common radiculopathy affecting the lumbosacral spine. It often presents with back pain that radiates down the lateral aspect of the leg into the foot. On examination, strength can be reduced in foot dorsiflexion, toe extension, foot inversion, and foot eversion. <http://www.physiologie.uni-mainz.de/physio/mittmann/ThalFallZ3.pdf>

154.) A 52-year-old male comes to the clinic for follow-up of an urgent care visit last week for cough. He was told it was probably a viral infection and was only given an albuterol prescription. He tells you that he has had a chronic cough that has seemed to get worse over the past 3 years. This is associated with sputum production, and he does have history of smoking for the past 30 years. On examination, his lung sounds are clear without wheezes, rales, or rhonchi.

Chest X-ray is normal and pulmonary function tests are normal. What is the most likely diagnosis?

- A. Cor pulmonale
- B. Asthma
- C. Emphysema
- D. Chronic bronchitis
- E. Chronic obstructive pulmonary disease

Answer Explained

Chronic bronchitis is defined by how long a person has a cough with daily phlegm production. It involves a frequent cough that persists for more than two years and, for at least three continuous months, produces phlegm. The most common cause of chronic bronchitis is smoking. <http://www.mayoclinic.org/medical-edge-newspaper-2011/apr-15b.html>.

155.) Which of the following is the most likely infectious organism in a 29-year-old female with Guillain-Barre syndrome?

- A. Escherichia coli
- B. Giardia lamblia
- C. Campylobacter jejuni
- D. Chlamydia trachomatis
- E. Yersinia enterocolitica

Answer Explained

All forms of Guillain–Barré syndrome most likely have an immunologic basis. The most common antecedent infection is the bacterium **Campylobacter jejuni**. Current Medical Diagnosis and Treatment 2017.

156.) Which of the following is a common manifestation of chronic atopic dermatitis?

- A. Erythema

- B. Edema
- C. Hyperpigmentation
- D. Oozing
- E. Crusting

Answer Explained

Atopic dermatitis is a chronic disease with periods of remissions and exacerbations. Hypopigmentation and **hyperpigmentation** can occur, which can cause great anxiety in parents.

<http://www.clevelandclinicmeded.com/medicalpubs/diseasemanagement/dermatology/atopic-dermatitis/>

157.) A 35-year-old healthy male has never smoked and is found to have severe emphysema. He most likely has

- A. Alpha-1-antitrypsin deficiency
- B. Alpha-fetoprotein deficiency
- C. Antithrombin III deficiency
- D. Alpha interferon deficiency
- E. Lupus anticoagulant

Answer Explained

Alpha 1-antitrypsin deficiency (α 1-antitrypsin deficiency, A1AD) is a genetic disorder that causes defective production of alpha 1-antitrypsin (A1AT), leading to decreased A1AT activity in the blood and lungs, and deposition of excessive abnormal A1AT protein in liver cells. Severe A1AT deficiency causes panacinar emphysema or COPD in adult life in many people with the condition. "Alpha1-antitrypsin deficiency". *Lancet* 365 (9478): 2225–36.

158.) A patient has an internal hemorrhoid that prolapses and requires manual reduction. Conservative management fails. Which one of the following procedures is indicated?

- A. Hemorrhoidectomy

- B. Rubber band ligation
- C. Sclerotherapy
- D. Infrared coagulation
- E. Incision and drainage

Answer Explained

Prolapsed Hemorrhoid Treatment is typically handled surgically because of the inherent severity of the condition and the nature of its symptoms. In such cases, where the hemorrhoid has externalized, a **Hemorrhoidectomy** may be performed. The procedure consists of surgically excising, or removing, the hemorrhoid, and is noted for the long duration of its recovery time and the severity of pain that accompanies it.

<http://www.hemorrhoidinformationcenter.com/prolapsed-hemorrhoids-symptoms-and-treatment/>

159.) Physical signs of cardiac tamponade include all of the following EXCEPT

- A. Rising venous pressure
- B. Dysphagia
- C. Decreased intensity of heart sounds on auscultation
- D. Falling arterial pressure
- E. Falling urine output

Answer Explained

Signs of classical cardiac tamponade include three signs, known as Beck's triad. Hypotension occurs because of decreased stroke volume, jugular-venous distension due to impaired venous return to the heart, and muffled heart sounds due to fluid inside the pericardium. Other signs of tamponade include pulsus paradoxus (a drop of at least 10mmHg in arterial blood pressure on inspiration), and ST segment changes on the electrocardiogram, which may also show low voltage QRS complexes, decreased urine output, as well as general signs & symptoms of shock (such as tachycardia, breathlessness and decreasing level of consciousness). "Cardiac Tamponade Treatment & Management". Medscape

160.) Which lab test is often positive in rheumatologic conditions and pregnancy?

- A. RPR
- B. ESR
- C. HPV
- D. EBV
- E. BNP

Answer Explained

The **ESR** is increased by any cause or focus of inflammation. The ESR is increased in pregnancy, inflammation, anemia, or rheumatoid arthritis, and decreased in polycythemia, sickle cell anemia, hereditary spherocytosis, and congestive heart failure. It may be increased in kidney cancer. <http://www.nlm.nih.gov/medlineplus/ency/article/003638.htm>

161.) Which of the following physical exam findings is most suspicious for oral cancer in a 70 year old with significant history of tobacco and alcohol abuse?

- A. Smooth red tongue
- B. Aphthous ulcer
- C. Painful white patches that can be removed with scraping
- D. Small vesicles on an erythematous base
- E. White lesion that cannot be removed with scraping

Answer Explained

Leukoplakia is a condition where areas of keratosis appear as adherent white patches on the mucous membranes of the oral cavity. www.mayoclinic.com

162.) The presence of a bicuspid aortic valve may be indicated by all of the following except

- A. Coarctation of the aorta
- B. An aortic ejection sound
- C. A soft, high-frequency aortic regurgitation murmur

- D. Clubbing of the nails
- E. Possible progression to aortic stenosis

Answer Explained

Clubbing of the nails

In many cases, a bicuspid aortic valve will cause no problems. However, BAV may become calcified later in life, which may lead to varying degrees of severity of aortic stenosis that will manifest murmurs. If the leaflets do not close correctly, aortic regurgitation can occur. If these become severe enough, they may require heart surgery. People with BAV may become tired more easily than those with normal valvular function and have difficulty maintaining stamina for cardio-intensive activities-due to poor heart performance. The heart is put under more stress to either pump more blood through a stenotic valve or attempt to circulate regurgitation blood through a leaking valve. J Am Coll Cardiol. 44 (1): 138–143

163.) Which of the following differentiates cluster headache from migraine?

- A. Visual blurring
- B. Horner syndrome
- C. Unilateral location of headache
- D. Nausea
- E. Pulsatile character of headache

Answer Explained

If a physical exam is done during a cluster attack, the exam will usually reveal **Horner syndrome** (one-sided eyelid drooping or a small pupil). These symptoms will not be present at other times. No other nervous system (neurological) changes will be seen.

<http://www.nlm.nih.gov/medlineplus/ency/article/000786.htm>

164.) An acute onset of third-trimester bleeding with severe pain is most consistent with

- A. Placenta previa
- B. Eclampsia

- C. Erythroblastosis fetalis
- D. Rh incompatibility
- E. Abruptio placentae

Answer Explained

Placental abruption is most likely in the last 12 weeks before birth. Classic signs and symptoms of placental abruption include vaginal bleeding, abdominal pain, back pain, uterine tenderness and rapid uterine contractions.

<http://www.mayoclinic.com/health/placentalabruption/DS00623/DSECTION=symptoms>

165.) Atrial fibrillation is usually associated with all the following EXCEPT

- A. Atherosclerotic heart disease
- B. Mitral Stenosis
- C. Hyperthyroidism
- D. Rheumatoid arthritis
- E. Pulmonary embolism

Answer Explained

Abnormalities or damage to the heart's structure are the most common cause of atrial fibrillation. Possible causes of atrial fibrillation include:

High blood pressure

Heart attacks

Abnormal heart valves

Heart defects you're born with (congenital)

An overactive thyroid gland or other metabolic imbalance

Exposure to stimulants, such as medications, caffeine, or tobacco, or alcohol

Sick sinus syndrome — functioning of the heart's natural pacemaker

Emphysema or other lung diseases

Previous heart surgery

Viral infections

Stress due to pneumonia, surgery, or other illnesses

Sleep apnea

<http://www.mayoclinic.com/health/atrial-fibrillation/DS00291/DSECTION=causes>

166.) Appropriate treatment for actinic keratosis includes which of the following

A. Liquid nitrogen

B. 5-fluorouracil cream

C. Trichloroacetic acid

D. A, B & C

E. None of the above

Answer Explained

Actinic keratosis treatment options may include:

Freezing (cryotherapy)

Creams or ointments. Some topical medications contain fluorouracil (Carac, Fluoroplex, Efudex), a chemotherapy drug. Chemical peeling. This involves applying one or more chemical solutions — trichloroacetic acid (Tri-Chlor)

<http://www.mayoclinic.com/health/actinic-keratosis/DS00568/DSECTION=treatments-and-drugs>

167.) Which of the following is the most likely associated abnormality to be manifested in a cystic fibrosis patient?

A. Autoimmune thyroiditis

- B. Dilated cardiomyopathy
- C. Intrahepatic cholestasis
- D. Headaches
- E. Malabsorption syndrome

Answer Explained

Factors that may cause **malabsorption syndrome** include antibiotic use; conditions such as celiac disease, chronic pancreatitis, cystic fibrosis and dairy protein allergies; birth defects or diseases of gall bladder, liver or pancreas; damage to the intestine and radiation therapy.
<http://www.healthline.com/health/malabsorption#Causes>

168.) An 8-month-old girl is brought to the ER by her mom because of vomiting, diarrhea and abdominal pain. On exam the abdomen is distended, and a small mass is noted in the midabdominal area. Diarrhea is noted to have both mucous and blood. What is the most appropriate treatment?

- A. IV antibiotic
- B. Colonoscopy
- C. Endoscopy
- D. Immediate Surgery
- E. Barium Enema

Answer Explained

Abdominal pain is typically the first sign of intussusception. Other common signs of intussusception include vomiting, diarrhea, and bloody/mucus stools. On occasion, children will present with a mass in their belly as well. You would start with a **barium enema** which fixes intussusception 90% of the time. If this does not work or the intestine is torn, surgery will be required.

<https://www.mayoclinic.org/diseases-conditions/intussusception/symptoms-causes/syc-20351452>

169.) Idiopathic hypertrophic subaortic stenosis can easily be confused with which valvular disorder?

- A. Aortic stenosis
- B. Aortic insufficiency
- C. Mitral stenosis
- D. Mitral insufficiency
- E. Tricuspid insufficiency

Answer Explained

The physical findings of HCM are associated with the dynamic outflow obstruction that is often present with this disease. Upon auscultation, the heart murmur will sound like the murmur of **aortic stenosis**. However, a murmur due to HCM will increase in intensity with any maneuver that decreases the volume of blood in the left ventricle (such as standing abruptly or the strain phase of a Valsalva maneuver). Administration of amyl nitrite will also accentuate the murmur by decreasing venous return to the heart. Classically, the murmur is also loudest at the left parasternal edge, 4th intercostal space, rather than in the aortic area. Maron BJ (Mar 2002). "Hypertrophic cardiomyopathy: a systematic review". JAMA 287 (10): 1308–20.

170.) Which of the following is an extra-articular manifestation of rheumatoid arthritis?

- A. Coronary artery aneurysms
- B. Periocular xanthelasma
- C. Malar rash
- D. Petechiae
- E. Vasculitis

Answer Explained

Vasculitis is a serious complication of rheumatoid arthritis. While rheumatoid arthritis affects the body's joints, vasculitis is a condition in which blood vessels become inflamed. When blood vessels become inflamed, they may become weakened and increase in size, or become narrowed, sometimes to the point of stopping blood flow. The blood vessels most often involved

are arteries that bring blood to the skin, nerves, and internal organs. Veins can also be involved. <http://my.clevelandclinic.org/orthopaedics-rheumatology/diseases-conditions/hic-rheumatoid-vasculitis.aspx>

171.) A 5-year-old boy requires prolonged intubation and nasogastric tube placement in an intensive care setting following a closed head injury from a car accident. He develops recurrent fever but is hemodynamically stable. What is the most like source of sepsis

- A. Bacterial tracheitis
- B. Small-bowel necrosis
- C. Epiglottitis
- D. Sinusitis
- E. Deep vein thrombosis (DVT)

Answer Explained

An NG tube is meant to be used only on a short-term basis. Using a temporary NG tube for too long can lead to **sinusitis**, infections, and ulcerations on the tissue of your sinuses, throat, esophagus, or stomach. For long-term tube feedings, a doctor may wish to perform minor surgery and insert a gastrostomy tube. <http://www.healthline.com/health/nasogastric-intubation-and-feeding#Risks>

172.) Patients with endocarditis who are allergic to penicillin may be treated with all of the following except

- A. Cephalosporin
- B. Vancomycin
- C. Trimethoprim/sulfamethoxazole
- D. Gentamicin
- E. All of the above

Answer Explained

Antibiotics utilized for treating infective endocarditis include aminoglycosides, glycopeptides, beta lactams. The American Heart Association (AHA) advises ceftriaxone for the penicillin-allergic patient—but this should only be used for allergy other than immediate-type hypersensitivity because of the risk of cross-sensitivity with penicillin.
<http://jac.oxfordjournals.org/content/54/6/971.full>

173.) Endocarditis prophylaxis is recommended for a 47-year-old woman with a bioprosthetic heart valve who is to undergo which of the following procedures

- A. Colostomy
- B. Filling of dental cavity
- C. Cystoscopy
- D. Cholecystectomy
- E. Appendectomy

Answer Explained

Endocarditis Prophylaxis is Recommended for People Only with the Following Conditions:

Prosthetic cardiac valves (including bioprosthetic and homograft valves)

Previous bacterial endocarditis

Unrepaired cyanotic congenital heart disease (CHD), including palliative shunts and conduits

Completely repaired congenital heart defect with prosthetic material or device, whether placed by surgery or by catheter, but only during the 1st six months after the procedure

Repaired CHD with residual defects at the site or adjacent to the site of a prosthetic patch or prosthetic device Cardiac transplantation recipients who develop cardiac valvulopathy

Procedures for Which Prophylaxis is Recommended for People with the Above Conditions

Dental Procedures All dental procedures that involve the manipulation of gingival tissue or the periapical region of teeth or perforation of the oral mucosa.

http://www.uphs.upenn.edu/bugdrug/antibiotic_manual/endopro.htm

174.) Condyloma acuminata is caused by

- A. Haemophilus ducreyi
- B. Herpes simplex virus
- C. Syphilis
- D. Coxsackie virus
- E. Human papillomavirus

Answer Explained

Genital warts (or condylomata acuminata, venereal warts, anal warts and anogenital warts) are symptoms of a highly contagious sexually transmitted disease caused by some types of **human papillomavirus (HPV)**. American family physician 82 (10): 1209–13.

175.) An adult has a three-month history of extremity paresthesias, lethargy, and progressive severe muscle cramps that began shortly after thyroidectomy. Which of the following is the most likely diagnosis?

- A. Hypothyroidism
- B. Hyperparathyroidism
- C. Hyperthyroidism
- D. Hypoparathyroidism
- E. Medullary carcinoma

Answer Explained

These are all symptoms of **hypoparathyroidism** which is a possible complication after a thyroidectomy CMDT 2019

176.) A 52-year-old man has generalized anxiety disorder. Which of the following is the preferred treatment?

- A. Chlorpromazine (Thorazine)

- B. Escitalopram (Lexapro)
- C. Bupropion (Wellbutrin)
- D. Quetiapine (Seroquel)
- E. Risperidone (Risperdal)

Answer Explained

SRIIs such as **Escitalopram (Lexapro)** are effective treatment options for GAD and lack the severe side effect profiles of TCAs, benzos, and antipsychotic medications, and thus should be used as first line agents. SRIIs are also effective at treating common comorbid conditions found with GAD such as depression. Benzos should be reserved for severe panic attacks only as they are highly addictive and thus not suitable for maintenance control of GAD. Up-to-Date

177.) A 9-year-old girl complains of fever and productive cough. She has had recurrent episodes of acute bronchitis. Exam reveals bilateral lower lobe crackles and CXR shows plate-like atelectasis and dilated, thickened airways in the middle and lower lungs. What is your diagnosis?

- A. Pneumonia
- B. Acute bronchitis
- C. Tuberculosis
- D. Mesothelioma
- E. Bronchiectasis

Answer Explained

The chest radiograph, which is abnormal in most patients with **bronchiectasis**, in combination with the clinical findings may be sufficient to establish the diagnosis. Suspicious but not diagnostic radiographic findings include platelike atelectasis, dilated and thickened airways (tram or parallel lines; ring shadows on cross section), and irregular peripheral opacities that may represent mucopurulent plugs. http://cfuk22.blogspot.com/2010/09/bronchiectasis-atelectasis-cysts-and_15.html

178.) All of the following should be screened for HBV infection EXCEPT

- A. Health care professionals
- B. Household contacts of persons with HBV infection
- C. Persons infected with human immunodeficiency virus
- D. Newborns
- E. Donors of blood, plasma, organs, tissue, or semen

Answer Explained

Newborns

People who may want to talk to their doctors about screening for hepatitis B infection include:

Anyone who lives with a person who has hepatitis B infection

Anyone who has had sex with a person who has hepatitis B infection

with an unexplained, abnormal liver enzyme test

Anyone infected with HIV

Immigrants, including internationally adopted children, from areas of the world where hepatitis B is more common, including Asia, the Pacific Islands, Africa, and Eastern Europe

People who inject drugs

Inmates

Men who have sex with men

People who have one or both parents from an area of the world where hepatitis B is more common

People who receive kidney dialysis

People who take medications that suppress the immune system, such as anti-rejection medications used after an organ transplant

Pregnant women

<http://www.mayoclinic.com/health/hepatitis-b/DS00398/DSECTION=tests-and-diagnosis>

179.) Presence of which of the following differentiates hepatic encephalopathy from uremic encephalopathy?

- A. Disorientation
- B. Nystagmus
- C. Asterixis
- D. Sleep disturbance
- E. Elevated blood ammonia level

Answer Explained

Ammonia, which is produced by the body when proteins are digested, is one of the harmful substances that is normally made harmless by the liver. Liver failure or damage will **elevate blood ammonia levels**. <http://www.nlm.nih.gov>

180.) A patient has a left tibia fracture after a motor vehicle accident. The next day he develops increasing pain with passive movement, pallor, and hypoesthesia of the extremity. Measured pressure with a needle inside the left leg is significantly elevated. What should be done next?

- A. Amputation
- B. Pack the extremity in ice
- C. Orthopedic surgery to stabilize the tibia
- D. Neurosurgical consult
- E. Fasciotomy

Answer Explained

Compartment syndrome causes severe pain that does not go away when you take pain medicine or raise the affected area. In more severe cases, symptoms may include:

Decreased sensation

Numbness and tingling

Paleness of skin

Severe pain that gets worse with passive movement

Weakness

Fasciotomy is needed immediately. Delaying surgery can lead to permanent damage.

Long surgical cuts are made through the muscle tissue to relieve the pressure. The wounds can be left open (covered with a sterile dressing) and closed during a second surgery, usually 48 – 72 hours later. <http://health.nytimes.com>

181.) A 22-year-old male with a history of chewing smokeless tobacco presents with painless white areas on the tongue and lower lip. Based on the patient's presentation, which of the following is the most appropriate diagnosis?

- A. Candidiasis
- B. Canker Sores
- C. Leukoplakia
- D. Oral Herpetic lesions
- E. Perioral dermatitis

Answer Explained

Of the lesions listed the only intraoral lesion which presents with no pain is **leukoplakia**. Candidiasis can be scrapped away where leukoplakia cannot. Perioral is a skin disease with multiple small pustules and papules localized to the perioral skin. Chewing smoking tobacco is the most common causative factor with approximately 80% of persons diagnosed with leukoplakia.

www.mayoclinic.org/diseases-conditions/leukoplakia/

182.) A 74-year-old male with a history of chronic hypertension presents with forgetfulness and inattentiveness. The patient is not depressed, and social graces are well maintained. Based on the patient's presentation, physical examination, and test results, which of the following is the most likely diagnosis?

- A. Alzheimer's disease
- B. Frontotemporal dementia
- C. Pseudodementia
- D. Psychosis
- E. Vascular dementia

Answer Explained

Vascular dementia- Clinical presentation and physical exam findings may be similar among these selections, however with a history of chronic hypertension a vascular cause would be most suspect.

www.mayoclinic.org/diseases-conditions/vascular-dementia/

183.) What is the most common cause of microcytosis and hypochromia of RBCs?

- A. Sickle Cell Disease
- B. Iron deficiency
- C. Vitamin B12 deficiency
- D. Folate deficiency
- E. Hemolytic anemia

Answer Explained

Iron deficiency anemia (IDA) is the most common cause of microcytosis. Identifying an underlying cause is dependent on the patient age and sex. Nutritional deficiency is common among children with IDA, while menstruating women loss iron through menstrual blood loss. Men and post-menopausal women with IDA require further work-up to include a detailed gastrointestinal investigation to rule out a gastrointestinal malignancy.

www.aafp.org/afp/2010/1101/p1117.html

184.) An ultrasound image of a 32-year-old woman's ovary denotes a characteristic string of pearls appearance. Which of the following disorders is characterized by this sign?

- A. Endometriosis
- B. Adenomyosis
- C. Leiomyomata
- D. Ovarian Cancer
- E. Polycystic ovary syndrome

Answer Explained

Polycystic ovary syndrome

185.) Hyperglycemia is not characteristically associated with

- A. Thiazide therapy
- B. Pheochromocytoma
- C. Cirrhosis
- D. Angiotensin-converting enzyme inhibitor therapy
- E. Cushing's disease

Answer Explained

Angiotensin-converting enzyme inhibitor therapy has been associated with increased insulin sensitivity leading to possible lower blood glucose levels (www.ncbi.nlm.nih.gov/pubmed)

Hydrochlorothiazide's exact mechanism of causing hyperglycemia is not clearly understood, but it has been implicated in contributing new onset diabetes in as few as 9-18 weeks starting therapy (spectrum.diabetesjournals.org)

Pheochromocytoma may lead to hyperglycemia by secreting epinephrine which inhibits insulin secretion and increases glucagon secretion (www.diapedia.org)

Cirrhosis leads to hepatic insulin resistance (*World J Gastroenterol*.Jan 21, 2009; 15(3): 280-288)

Cushing's disease leads to increase cortisol levels which oppose the action of insulin and lead to hyperglycemia (clinical.diabetesjournals.org)

186.) Which of the following medications can be prescribed to halt nicotine cravings?

- A. Disulfiram
- B. Bupropion
- C. Naloxone
- D. Phenobarbital
- E. Varenicline

Answer Explained

Varenicline

187.) In addition to drainage, which of the following is required for proper treatment of malignant pleural effusions?

- A. Insertion of large-bore needle
- B. Intubation
- C. Paracentesis
- D. Pleurodesis
- E. Thoracentesis

Answer Explained

Pleurodesis

188.) Initial management of an unconscious patient brought to the emergency department includes administration of all of the following EXCEPT

- A. Insulin

- B. Oxygen
- C. Thiamine
- D. Glucose
- E. Naloxone

Answer Explained

Insulin

189.) Which of the following is increased in a 30-year-old male with a germ cell testicular tumor?

- A. Prolactin
- B. Luteinizing Hormone
- C. Testosterone
- D. Alpha-fetoprotein
- E. Calcitonin

Answer Explained

Alpha-fetoprotein

190.) Which of the following types of arthritis is characterized by yellow-to-opalescent joint color and a white blood count of 3,000-50,000/ul?

- A. Osteoarthritis
- B. Psoriatic arthritis
- C. Reactive arthritis
- D. Rheumatoid arthritis
- E. Septic arthritis

Answer Explained

Rheumatoid arthritis

191.) Which of the following about the treatment of corneal abrasions is correct?

- A. The affected eye should be treated with aminoglycosides
- B. Eye patching improves the rate of healing
- C. The patient should be treated with a topical steroid
- D. Topical NSAIDs and oral analgesics are acceptable options for pain control
- E. The patient should be treated with an oral antibiotic

Answer Explained

Treatment includes bacitracin-polymyxin ophthalmic ointment, mydriatic, and analgesics, either **topical or oral NSAIDs**. CMDT 2017.

192.) A pediatric chest X-ray reveals a boot-shaped heart. This appearance of the heart is a common finding for which of the following disorders?

- A. Aortic stenosis
- B. Atrial septal defect
- C. Hypoplastic left heart syndrome
- D. Tetralogy of Fallot
- E. Transposition of the great vessels

Answer Explained

Tetralogy of Fallot

193.) Recombinant hepatitis B vaccine is recommended for a patient who has which of the following conditions?

- A. Chronic hemodialysis
- B. Diabetes mellitus
- C. Nephrotic syndrome
- D. Chronic heart failure
- E. Malabsorption syndrome

Answer Explained

Chronic hemodialysis

194.) Oxytocin is commonly used for which of the following reproductive purposes?

- A. Inducing labor
- B. Inhibiting pre-term labor
- C. Oral contraception
- D. Promotion of ovulation
- E. Transdermal contraception

Answer Explained

Inducing labor

195.) Primary hyperparathyroidism is characterized in the serum chemistry by

- A. High calcium, high phosphorus, and high alkaline phosphatase levels
- B. High calcium, low phosphorus, and high alkaline phosphatase levels
- C. Low calcium, high phosphorus, and high alkaline phosphatase levels
- D. Low calcium, low phosphorus, and low alkaline phosphatase levels
- E. Low calcium, high phosphorus, and low alkaline phosphatase levels

Answer Explained

High calcium, low phosphorus, and high alkaline phosphatase levels

196.) A hypomanic state is most likely to be an adverse effect of therapy with which of the following medicines?

- A. Lisinopril
- B. Prednisone
- C. Simvastatin
- D. Diltiazem
- E. Hydrochlorothiazide

Answer Explained

Prednisone

197.) A 34-year-old African American male presents to the clinic with new onset shortness of breath. He denies any past medical history, recent travel, and has never smoked. On exam, he has fine inspiratory crackles in both lower lung lobes and tender erythematous nodules on his legs. Chest X-ray reveals bilateral hilar adenopathy and reticulonodular changes in both lungs. A transbronchial biopsy reveals noncaseating granulomas. Which of the following is the most appropriate next step in therapy?

- A. Isoniazid
- B. Isoniazid and streptomycin
- C. Aspirin
- D. Steroids
- E. Referral for lobectomy

Answer Explained

Steroids

198.) Which one of the following is not a risk factor for the development of anal squamous cell carcinoma?

- A. Human papillomavirus infection
- B. Hepatitis B infection
- C. Human immunodeficiency virus infection
- D. High-risk sexual behavior, such as anal intercourse
- E. A history of genital warts

Answer Explained

Hepatitis B infection. The most common subtype to likely cause anal squamous cell carcinoma is HPV-16. Since your immunity is already suppressed with HIV infection, it increases one's risk of developing anal squamous cell carcinoma. Anal intercourse can result in tearing of the tissue in the anus allowing bacteria and viruses such as HIV, HPV to enter. Genital warts are unlikely to cause anal cancer but people who have had a history of them are more likely to get anal cancer as they are more likely to be infected with high-risk subtypes of HPV leading to anal cancer.

<https://www.cancer.org/cancer/anal-cancer/causes-risks-prevention/risk-factors.html>

199.) Hyponatremia is characteristically noted in which of the following conditions?

- A. Iron overload
- B. Carnitine deficiency
- C. Inappropriate anti-diuretic hormone syndrome
- D. Metabolic syndrome
- E. Carcinoid syndrome

Answer Explained

Inappropriate anti-diuretic hormone syndrome

200.) Which type of fracture is classically defined as a fracture in which one side of the bone is broken while the other side is bent?

A. Greenstick fracture

B. Colle's fracture

C. Open fracture

D. Smith's fracture

E. Torus fracture

Answer Explained

Greenstick fracture