

**GoldStandard FCPS:**

**Medicine & Allied**

**24April 2019 Morning** 

**(Errors and omissions excepted)**

**Cram Statements**

**HCO3 absorption in nephron?---->PCT and collecting**

About 85 to 90% of the filtered bicarbonate isreabsorbed in the proximal tubule and the rest isreabsorbed by the intercalated cells of the distal tubule and collecting ducts

 **function of progesterone is?---->Maintain endometrium thickness**

most important functions is to cause the endometrium to secrete special proteins during the second half of the menstrual cycle, preparing it to receive and nourish an implanted fertilized egg

**rigidity of facial muscle with tremors in hands. The lesion is in ?---->Substantia nigra**

The cardinal motor features of PD—described as the “classical triad”—include resting tremor, “cogwheel” rigidity, and bradykinesia

**CBC showed MCV & MCHC low, Hb 6.8. type?---->Iron deficiency anemia**

Iron deficiency anemia signs and symptoms may include: Extreme fatigue.Weakness. Pale skin. fast heartbeat or shortness of breath. Headache, dizziness . Inflammation or soreness of your tongue. Brittle nails. Labs show Microcitic hypochormic red blood cells

**on psychiatric medications develops agitation and visual impairment. causing is?---->Thioridazine**

Common side effects of thioridazine include: dizziness , agitation, restlessness

**Beta adrenergic stimulation causes?---->Glycogenolysis**

β receptors couple to Gs, and increases intracellular cAMP activity, resulting in e.g. heart muscle contraction, smooth muscle relaxation and glycogenolysis

**MOA of H2 inhibitor/cimetidine ---->Decrease acidity and volume of acid secretion**

MOA: Competitive antagonist at the H2 receptor. Blocks H2 receptors in parietal cells which suppresses basal and meal-stimulated acid secretion in a dose-dependent manner.

**Effect of Warfarin is increased by?---->Cimetidine**

Cimetidine potentiates the anticoagulant effect of warfarin sodium

**sudden purposeless jerky movements of his arms . Lesion is in?---->Caudate**

sudden movements (i.e., motor tics) and/or vocalizations (i.e., vocal ... patients maydevelop involuntary movements following injury to head of the caudate, and internal capsule

**Sarcoidosis is diagnosed ---->Granuloma with asteroid**

The granulomas are typically 'naked' with few surrounding lymphocytes and a rim of mild dermal fibrosis. Asteroid bodies are star shaped cytoplasmic inclusions

**HX of Cough, Histology shows granuloma with caseous necrosis. The hilar lymph sign chest x-ray is normal.diagnosis?---->Histoplasmosis**

**mine worker with tuberculin test positive with hilar lymphadenopathy. Diagnosis is?---->Silicosis**

Silicosis, a preventable occupational lung disease, is associated with various diseases, including tuberculosis (TB). There is an increased lifelong risk for lung tuberculosis even if exposure to silica dust ceases

**Cabergoline acts on ---->D2 agonist**

Cabergoline an ergot derivative, is a potent dopamine receptor agonist on D2 receptors. ..

**tyre factory worker, exposed to hydrocarbons. Risk of---->Bladder Ca**

**bronchopulmonary segment:---->Supplied by bronchus segment and tertiary part of pulmonary artery**

A bronchopulmonary segment is a portion of lung supplied by a specific segmental bronchus and arteries. These arteries branch from the pulmonary andbronchial arteries,

**the amount of co2 dissolved in plasma at45mmHg is?---->0.027**

guyton & hall: 2.7% (recommended) |BUT| carbon dioxide diffuses from peripheral tissues into the bloodstream, approximately 10% of it remains dissolved in the plasma, or the extracellular fluid matrix of the blood, to a partial pressure of about 45 mmHg. Source:https://www.ncbi.nlm.nih.gov/books/NBK532988/ ||

 **primary amenorrhea, webbed neck, karyotype show?---->45X0**

Turner syndrome is a chromosomal condition that affects development in females. The most common feature of Turner syndrome is short stature, webbed neck, wide carryng angle and streaked ovaries. Karyotype shows 45-XO chromosomes

**Celts of simple columnar epithelium are connected to each other by?---->Tight junction, adherent junction and desmosome**

they are confined to the basolateral (basal and lateral) surfaces of the cell, ... Thetight junctions between epithelial cells are thought to have both of these roles. ... Adherens Junctions Connect Bundles of Actin Filaments from Cell to Cell ... Through desmosomes, the intermediate filaments of adjacent cells are linked

 **Muscles:---->Aponeurosis is fibrous**

An aponeurosis is a type or a variant of the deep fascia, in the form of a sheet of pearly-white fibrous tissue that attaches sheet-like muscles needing a wide area of attachment.

 **structure is continuous with internal spermatic fascia?---->Fascia transversalis**

. The transversalis fascia iscontinuous with the internal spermatic fascia.

**Appendicular artery is a branch of?---->Ileocolic**

Vermiform Appendix is supplied by appendicular artery which is a branch of ileo- colic artery (Abranch of superior mesenteric artery which is the artery of mid- gut

**Anterior intercostal arteries are branches of?---->Internal thoracic artery**

he anterior intercostal branches of internal thoracic artery supply the upper five or six intercostal spaces

**Pulmonary valve opens when right ventricular pressure exceeds?---->8 mmHg**

The valve is opened by the increased blood pressure of the ventricular systole (contraction of the muscular tissue), pushing blood out of the heart and into the artery i.e 8mmhg

**Injury causing hyperextension of neck and damage to cervical cord is by?---->Pain on opposite side c LMN lesion of upper limb**

Hyperextension of the neck is an injury caused by an abrupt forward then backward movement of the head and neck which presents as pain on opposite side due to LMN

 **short left leg rotated laterally. Cause is?---->Femur neck fracture**

The most common types of hip fractures are: Femoral neck fracture. A femoral neck fracture happens 1 to 2 inches from your hip joint.

**COPD patient, 02 pressure at 11cm of water by PEEP for 24 hrs would cause?
---->Pneumothorax**

**primary amenorrhea. On U/S absent ovaries & uterus were seen. cause is?---->Testicular feminizing syndrome**

Testicular feminizimg syndrome patients are sterile, they cannot bear children, USG shows absent ovaries and uterus, present with primary amenorrhea

 **sore throat. received antibiotic, resolved it, following 2 weeks, later developed generalized body Edema, cause?---->Acute post streptococcal glomerulonephritis**

Hematuria, Hypertension, Edema and decreased urine output preceded by sore throat in children is a classical presentation of acute post streptococcal glomerulonephritis

 **investigation for myasthenia graves is?---->Anti-acetylchoiine receptor Ab**

The main test for myasthenia gravis is a blood test to look for a type of antibody (produced by the immune system) that stops signals being sent between the nerves and muscles. A high level of these antibodies usually means you have myasthenia gravis.

**toxin produced by streptococcus pneumonia is?---->Streptolysin O**

streptolysin O is a hemolytic factor produced by group A beta hemolytic streptococci and it is the most prominent toxin as ASO titers are used as a diagnostic criteria

**suffering from primary syphilis. sample is taken from?---->Genital sores**

small, open painless sore or ulcer (chancre) on mouth and genitalia is a lesion of primary syphilis

 **least dilatable part is this?
---->Membranous part**

The membranous urethra or intermediate part of male urethra is the shortest, least dilatable, and, with the exception of the urinary meatus, the narrowest part of the urethra

**ACE inhibitor to controll bp result in decreased blood supply to brain? Cause?---->Decrease sympathetic**

ACE Inhibitors Down regulate sympathetic adrenergic activity by blocking the facilitating effects of angiotensin II on sympathetic nerve release and reuptake of norepinephrine.

 **Labs shows PT normal, APTT raised BT raised. Diagnosis?---->Von Willebrand disease**

The aPTT is mildly prolonged in approximately 50% of patients with vWD. The prolongation is secondary to low levels of FVIII because one of the normal functions of vWF is to protect FVIII from degradation. The PT should be within reference ranges. BT indicated platelet disorder

**A lady had labor at home in village. Her PT & APTT were prolonged. Most likely cause is?---->DIC**

Laboratory findings suggestive of DIC consist of a low platelet count, elevation of the D-dimer and fibrinogen concentrations, and prolongation of prothrombin time (PT) and activated partial thromboplastin time (aPTT).

**Thiazide diuretics causes?---->Hypokalemia**

Thiazide diuretics reduces potassium concentration in blood through two indirect mechanisms: inhibition of sodium-chloride symporter at distal convoluted tubule of a nephron and stimulation of aldosterone that activates Na+/K+-ATPase at collecting duct.

**Labs show APTT prolong. PT & BT normal. Diagnosis?---->Hemophilia**

Hemoglobin/hematocrit: Normal or low. Platelet count: Normal. Bleeding time and PT: Normal. APTT: Significantly prolonged in severe hemophilia,

**. CBC picture shows presence of atypical lymphocytes. important test in this setting is?---->Monospot test**

Mononucleosis spot test. The mononucleosis spot test looks for 2 antibodies in the blood. These antibodies appear during or after an infection with the virus that causes mononucleosis, or mono. Infectious mononucleosis causes a sore throat, enlarged lymph nodes, and fatigue.

 **runner started sweating profusely and complained confusion, cause?---->Heat exhaustion**

The most common signs and symptoms of heat exhaustion include: Confusion Dark-colored urine (a sign of dehydration) Dizziness Fainting Fatigue Headache Muscle or abdominal cramps Nausea, vomiting, or diarrhea Pale skin Profuse sweating Rapid heartbeat

 **Epistaxis bleeding from the lateral wall of nose, artery involved is?---->Sphenopalatine artery**

The sphenopalatine artery is the artery responsible for the most serious, posterior nosebleeds (also known as epistaxis

**in peptic ulcer disease,. Analgesia of choice should be?---->Acetaminophen**

Acetaminophen (Tylenol®) is NOT an NSAID and is therefore the preferred non-prescription treatment for pain in patients at risk for peptic ulcer disease.

**Cimetidine may prolong the prothrombin time and causes bleeding in with warfarin. ---->Decreasing the hepatic clearance of warfarin**

cimetidine caused an increased prothrombin time in patients receiving warfarin

**pregnant lady RH positive and husband RH negative.
---->No need to worry**

RH symptoms occur when the mother is Rh negative and the father is Rh positive resulting in RH positive baby so no risk in above mentioned scenario

**Semi-circular canals in cortex of ear are maximally stimulated?---->Doing cartwheel**

Posterior semicircular canal hair cells are most commonly stimulated during a cartwheel while anterior ones during a saumersault

**hepatosplanomegaly with fever & chills. Labs show Giemsa stain positive. Diagnosis?
---->Plasmodium**

findings in malaria may include fever, weakness, pallor, jaundice, and perspiration. Other findings on physical exam are tachycardia, tachypnea, splenomegaly, and hepatomegaly.

**Conduction system of heart is located in?---->Sub endocardium**

The bundle branches run along the subendocardium of the interventricular septum and free ventricular walls and give rise to Purkinje fibers that supply the myocardium in a subendocardial-to-epicardial direction

**SA node acts as a heart pacemaker because of?---->Generates impulses at faster rate**

The SA node is sometimes referred to as the heart's "natural pacemaker" because it initiates impulses for the heartbeat at a faster rate as Compared to AV nodes and bundle branches

**asthmatic comes to ER with dyspnea respiratory rate 30---->Hysterical hyperventilation**

patients with hysterical hyperventilation often present with sudden onset of dyspnea, chest pain and neurological symptoms after a stressful event as hyperventilation causes CO2 level to drop and further aggravates condition

**GIT completely denervated, the effect on Gl movement will be?---->Have little effect on the resting ratfe of intestinal peristalsis**

GIT denervation in the long term has little effect on rate of intestinal peristalsis

 **Pleura ruptured in pneumothorax, ---->Inward lung collapse and outward chest wall spring**

air builds up, pressure inside the pleural space increases and causes the lung to collapse

**paresis of limbs due to UMN injury. Site ---->Corticospinal tract and corticobulbar tract**

The nerves in the CNS which carry the impulses for movement are known as upper motor neurons (UMN). The primary tract which carries signals for voluntary movement is known as the pyramidal tract. The pyramidal tract divides further into the corticospinal tract and the corticobulbar tract.

 **blood supply of scalp is from?---->External carotid artery**

External carotid artery supplies head and neck external to cranium

**Lumbar triangle is anteriorly related to posterior part ---->External oblique**

The margins of the inferior lumbar (Petit's) triangle are composed of the iliac crest inferiorly and the margins of two muscles – latissimus dorsi (posteriorly) and external abdominal oblique (anteriorly

 **parameters is decreased during moderate exercise?---->Total peripheral resistance (TPR)**

Indeed, during dynamic exercise at maximal levels, total peripheral resistance is less than one-half its value at rest. ... The decrease in total peripheral resistance is the result of decreased vascular resistance in skeletal muscle vascu- lar beds, leading to increased blood flow.

**rheumatic mitral stenosis developed fever, lafter tooth extraction. organism ?---->Strep viridians**

cases of subacute bacterial endocarditis, the causative organism (streptococcus viridans) needs a previous heart valve disease to colonize. Other include mutants, mitis

**characteristics of IgM?---->It is the largest molecule**

IGM is the largest molecule, highest avidity of all immunoglobulins, is a better agglutinin

 **Cerebellum is connected to midbrain via?---->Superior cerebellar peduncle**

the superior cerebellar peduncle (brachium conjunctivum) is a paired structure of white matter that connects the cerebellum to the midbrain

**Structure closest to crus cerebri is?---->Substantia nigra**

Structure closest to crus cerebri is Substantia nigra

 **profuse bleeding from posterior wall of mastoid antrum. Source of bleeding?---->Sigmoid sinus**

The location of the sigmoid sinus within the mastoid cavity is quite variable. So in surgery, it might easily provoke a massive bleeding

 **increase the Gastric motility?---->Gastrin**

Gastrin is a peptide hormone that stimulates secretion of gastric acid (HCl) by the parietal cells of the stomach and aids in gastric motility.

**Primordial germ cells of yolk sac migrate to gonadal ridges in which week?---->6lh week**

The primordial germ cells wander out of the yolk sac wall, along the vitelline and the dorsal mesentery, into the gonadal ridge. They reach this structure in the 6thweek.

**Climbing fiber originate from?---->Inferior olive nucleus**

Climbing fiber is shown originating from the inferior olive (green). Climbing fibers are the name given to a series of neuronal projections from the inferior olivary nucleus located in the medulla oblongata.

**PTH action on renal tubules?---->Inhibit phosphate absorption in PCT**

PTH reduces the reabsorption of phosphate from the proximal tubule of the kidney, which means more phosphate is excreted through the urine.

**Damage in the right somatosensory causes?---->Loss of crude touch of left side**

somatosensory losses in his left hand include ... symptoms are ipsilesional (i.e., involve damage to the right half of the spinal cord, ... touch and proprioception, but no loss of pain, temperature or crude touch sensitivity.

 **Aphasia & Facial nerve palsy on same side. Which artery is most likely blocked?---->Middle cerebral artery**

The MCA is by far the largest cerebral artery and is the vessel most commonly affected by cerebrovascular accident.

 **containing IgE receptors and dense basophilic granules with histamine are?---->Basophils**

They contain cytoplasmic granules with similar histamine levels per cell as mast cells. In contrast, the amount of tryptase in basophils is less than 1% of that in mast cells. Cross-linking of the FcεRI by IgE-antigen complexes causes basophil degranulation and mediator release, particularly of histamine.

**metallic taste The most probable medication it is?---->Metformin**

Metformin (biguanide) should be the first-line drug for managing type 2 diabetes

**Primary TB granuloma complex is?---->Granuloma with surrounding lymphatic**

These lesions are characteristic of the first infection tuberculosis that heals to form a Gohn complex with calcified granulomas in the lung and hilar lymph nodes.

**Homonymous hemianopia is due to lesion in?---->Optic tract**

Vascular and neoplastic (malignant or benign tumours)lesions from the optic tract, to visual cortex can cause a contralateral homonymous hemianopsia.

**Tumor involvement of submental and submandibular lymph node?---->Tongue**

The afferents of the submandibular glands drain the medial canthus, the cheek, the side of the nose, the upper lip, the lateral part of the lower lip, the gums, and the anterior part of the margin of the tongue. Efferent lymph vessels from the facial and submental lymph nodes also enter the submandibular glands.

 **low amplitude QRS complex is?---->Old Ml**

;ow voltage may be present in the following situations:Chronic obstructive pulmonary disease, or COPD, Obesity, Pericardial effusion, Severe hypothyroidism, Massive myocardial damage/infarction, Infiltrative/restrictive diseases such as amyloid cardiomyopathy

**ECG of atrial fibrillation?---->Irregular R-R interval**

The hallmark of atrial fibrillation is absence of P-waves and an irregularly irregular (i.e totally irregular) ventricular rate

**S3 sound is produced by?---->Rapid filling of ventricle**

The third heart sound is caused by a sudden deceleration of blood flow into the left ventricle from the left atrium.

**Maximum aortic pressure is during phase of cardiac cycle?---->Slow ejection**

stage to the maximumvolume occurring in the "Atrial systole" sub-stage.

**Mechanism of reduction in size of organ in chemotherapy is---->Apoptosis**

Apoptosis is an orderly process in which the cell's contents break down and are packaged into small packets of membrane for “garbage collection” by immune cells.

**Regarding S2:---->Isovolumetric relaxation**

When the intraventricular pressures fall sufficiently at the end of phase 4, the aortic and pulmonic valves abruptly close (aortic precedes pulmonic) causing the second heart sound (S2) and the beginning of isovolumetric relaxation

**Parasympathetic---->Greater splanchnic**

The thoracic, lumbar and sacral splanchnic nerves are sympathetic in function while the pelvic splanchnic nerves are parasympathetic

**Type of joint present in intervertebral disc is?
---->Symphysis**

Each disc forms a fibrocartilaginous joint (a symphysis), to allow slight movement of the vertebrae, to act as a ligament to hold the vertebrae together, and to function as a shock absorber for the spine.

**Calculate GFR in CKD for transplant or dialysis?
---->Creatinine clearance**

Renal function tests monitor need for dialysis (Serum urea and creatinine)

**. Hip joint is ---->Interiorly to oburator externus**

muscle originates from the upper part of the inferior pubic ramus from where it runs downwards and laterally. ... The external obturator muscle acts as the lateral rotator of the hip joint.

**Stratified squamous epithelium is in---->Palatine tonsil**

The palatine tonsil is composed of lymphoid tissue with epithelial cells of keratinized stratified squamous epithelium

**Beriberi is caused due to deficiency of?---->Thiamine**

Beriberi is a disease caused by a vitamin B-1 deficiency, also known as thiamine deficiency. There are two types of the disease: wet beriberi and dry beriberi. Wet beriberi affects the heart and circulatory system

 **cause of acquired thrombosis is?---->Anti-phospholipid antibody syndrome**

The antiphospholipid syndrome is a relatively common acquired cause of venous thrombosis. ... Most antiphospholipid antibodies are directed against several phospholipid-binding plasma proteins. The most common antigens are β2-glycoprotein I and prothrombin

**Tall T waves with wide QRS complex and absent p waves. Diagnosis?---->Hyperkalemia**

Early changes of hyperkalemia include tall, peaked T waves with a narrow base, best seen in precordial leads ; shortened QT interval; and ST-segment depression

**put on warfarin, first factor to be decreased?---->Factor 7**

Warfarin decreases blood clotting by blocking an enzyme called vitamin K epoxide reductase that reactivates vitamin K1. Without sufficient active vitamin K1, clotting factors II, VII, IX, and X have decreased clotting ability.

**Cryptococcus neoformans. treatment ---->Amphotericin B**

Standard treatment of CM with amphotericin B and flucytosine

**CSF has---->Decrease glucose than plasma**

The CSF/serum glucose ratio, also known as CSF/Blood glucose ratio, is a measurement used to compare CSF glucose and blood sugar.CSF contains 2/3rd of normal plasma glucose.

**M band in multiple myeloma is produced by ---->Plasma cells**

The M-Band is a serum marker for plasma cell dycrasias and Waldenström macroglobulinemia

**Mononuclear phagocytosis originates from precursor cells in?---->Bone marrow**

The spleen is the largest unit of the mononuclear phagocyte system. The monocyte is formed in the bone marrow and transported by the blood; it migrates into the tissues, where it transforms into a histiocyte or a macrophage.

 **marker of neural tube defects is?---->AFP**

An AFP test is a routine screening test that’s given to expectant mothers between the 14th and 22nd weeks of their pregnancy.It is the most specific marker of neural tube defects.

 **produced by the action of lipoxygenase on arachidonic acid, ---->Leukotriene 3&4**

Leukotrienes are a family of ecosanoid inflammatory mediators produced in leukocytes by the action of arachidonic acid and the essential fatty acid ecosapentaenoic acid by the enzyme lipooxygenase

**height altitude complains of
---->Respiratory alkalosis**

As the oxygen tension of inspired air falls with increasing altitude in normal subjects, hyperventilation ensues. This acute respiratory alkalosis, induces increased renal excretion of bicarbonate, returning the pH back to normal, giving rise to compensated respiratory alkalosis or chronic hypocapnia.

**complication of AIDS?
---->Pneumocystis carini**

pneumocystis carini is one of the most frequent and severe opportunistic infection in people with AIDS.

**Cushiig's syndrome character---->Abdominal striae**

Skin striae due to hypercortisolism are often wide and purple, which contrasts with the narrow and pale or pink striae of rapid weight gain (5). Facial acne and hirsutism are attributed to increased adrenal androgen and/or cortisol secretion

**Acute Pulmonary congestion due to mitral stenosis. in alveoli?---->Macrophages**

This condition occurs due to the deposition of hemosiderin-laden macrophages in lungs as a result of repeated alveolar hemorrhage that subsequently leads to the development of pulmonary fibrosis

**common feature of autoimmune disease is?---->Arthritis**

The most common autoimmune diseases in women are: Rheumatoid arthritis, a form of arthritis that attacks the joints.

**if the centromere gets divided transversely instead of vertically then it results in?---->Isochromosome**

An isochromosome is created when the centromere is divided transversely, or perpendicular to the long axis of the chromosome. ... Misdivision of the centromere can also produce monocentric isochromosomes, but they are not as common as dicentric isochromosomes.

**in appendicitis. Pain will be mediated by?---->Bradykinin and prostaglandin E**

In any inflammatory condition leukocytosis is mediated by prostaglandin E and bradykinins which are the inflammatory mediators.

**male with renal artery obstruction and resultant increased renin secretion will cause?
---->Angiotensin 2 induced**

**T test is used?---->To compare 2 categories/groups**

A t-test is a type of inferential statistic used to determine if there is a significant difference between the means of two groups, which may be related in certain features. The t-test is one of many tests used for the purpose of hypothesis testing in statistics

**Regeneration of liver is ---->Hyperplasia**

Compensatory hyperplasia is the proliferation of cells while they maintain their differentiated structure and function. The classic example is hepatocyte regeneration in injured liver

 **pregnant women presented with hypertension. The drug of choice will be?---->Methyldopa**

During long term use in pregnancy, methyldopa does not alter maternal cardiac output or blood flow to the uterus or kidneys, and for all these reasons is generally considered the agent of choice for chronic blood pressure control in pregnancy.

**Albumin does not get freely filtered in glomeruli due to?---->Negative charge of particle**

The glomerular filtration barrier bears electrostatic charge and shows not only size- but also charge-selective properties thus albumin being negatively charged is not filtered.

**reflex for defecation is?---->Rectoanal**

The rectoanal inhibitory reflex (RAIR) (also known as the anal sampling mechanism, anal sampling reflex, rectosphincteric reflex, or anorectal sampling reflex) is a reflex characterized by a transient involuntary relaxation of the internal anal sphincter in response to distention of the rectum

**positive feedback is?---->Child birth**

Image result for positive feedback childbirth Image result for positive feedback childbirth View all A positive feedback loop maintains the direction of the stimulus and possibly accelerates it. ... Another example of positive feedback is uterine contractions during childbirth. The hormone oxytocin, made by the endocrine system, stimulates the contraction of the uterus

**Antidote of warfarin toxicity is?---->Vit K**

Warfarin is a vitamin K antagonist used as an anticoagulant used for treatment and prevention of a variety of coagulopathic and thromboembolic disorders.It is given to patients taking warfarin on a long term basis

**hypothalamus- hypophyseal portal system in:---->Anterior pituitary**

The hypophyseal portal system is a system of blood vessels in the microcirculation at the base of the brain, connecting the hypothalamus with the anterior pituitary.

**vessel accompanying LAD in anterior interventricular groove. vessel is?---->Great cardiac vein**

The largest vein, termed the great cardiac vein, accompanies the anterior interventricular artery, turning beneath the left atrial appendage to join the coronary sinus.

**MOA of IV potassium treatment---->Na-K pumps**

The sodium potassium pump regulates extracellular potassium levels by pumping sodium out of cells and allowing potassium to flow back into cells.

**pregnant lady diagnosed as mitral stenosis with atrial fibrillation. drug should she ---->Beta blocker**

Beta blockers are a first line medication for hypertension during pregnancy and maternal cardiac conditions because they do not increase risk for fetal cardiac anomalies.

**Blood supply to the upper 1/3 of the esophagus is
---->Inferior thyroid artery**

The upper parts of the esophagus and the upper esophageal sphincter receive blood from the inferior thyroid artery, the parts of the esophagus in the thorax from the bronchial arteries and branches directly from the thoracic aorta

 **Acetaminophen undergoes ---->Glucuronidation**

Acetaminophen glucuronide is a natural human metabolite of Acetaminophen generated in the liver by UDP glucuonyltransferase. Glucuronidation is used to assist in the excretion of toxic substances, drugs or other substances that cannot be used as an energy source.

 **locally malignant tumor is?
---->Ameloblastoma**

Ameloblastoma. Ameloblastomas are locally aggressive jaw tumors with a high propensity for recurrence

**Test dose of Edrophonium relieves symptoms. reasonable approach ---->Increase Neostigmine dose**

Neostigmine works by slowing the breakdown of acetylecholine when it is released from nerve endings in myasthenia gravis.Poitive endrophonium test confrims the pathology and neostigmine is the drug of choice .

 **diabetic gastroparesis. best drug ---->Metoclopramide**

Metoclopramide is used for the symptomatic treatment of post-operative or chemotherapy-induced nausea and vomiting, gastroesophageal reflux disease and gastroparesis. Metoclopramide is generally started at a dose of 5–10 mg orally, 30 min before meals and at bedtime

**farmer presented with right lower lobe coin like mass, cause?---->Aspergillosis**

A typical radiological finding of an aspergilloma is a solid, round or oval mass with soft-tissue opacity within a lung cavity, manifesting an “air crescent sign” without significant enhancement

 **Testicular mass with mature cells and all 3 germ layers ---->Teratoma**

Teratomas are a form of germ cell tumor containing elements from all 3 embryonic germ layers, ie, ectoderm, endoderm, and mesoderm. ... A dermoid cyst (mature cystic teratoma) after opening the abdomen.

**During exercise, decreased blood flow to?
---->Kidney**

These alterations are coordinated by the sympathetic nervous system, which directs increased sympathetic outflow to the heart, resulting in increased cardiac output, and evokes baroreflex-mediated vasoconstriction in peripheral organs (e.g., kidneys, small and large intestines, and non-exercising skeletal muscles)

**Endocervical tissue partially lined by stratified squamous epithelium. This is due to?---->Metaplasia**

Metaplasia is abnormal change in nature of a tissue ,It occurs in resposne to injury

 **feature of Squamous Cell Ca is?---->Epithelial nest of keratin**

Histopathologically, squamous cell carcinoma cells show keratinization (in the form of keratin pearls or single cell keratinization) and/or intercellular bridges. ... The most common pattern is one of infiltrating nests of malignant squamous cells

**Staging is a method of determining?---->Degree of differentiation**

Stages of Cancer. Staging helps describe where a cancer is located, if or where it has spread, and whether it is affecting other parts of the body.

 **thyroid gland is enclosed in ---->Pretracheal fascia**

It spans between the hyoid bone superiorly and the thorax inferiorly (where it fuses with the pericardium). The trachea, oesophagus, thyroid gland and infrahyoid muscles are enclosed by the pretracheal fascia.

 **Referred pain from the appendix will be in?---->   Umbilicus**

If you have appendicitis, you may feel sharp pain around your navel that eventually shifts to the lower right side of your abdomen.

**nerve injured in fracture of medial epicondyle of humerus is?---->Ulnar nerve**

Medial epicondyle fractures of the distal humerus constitute 10%–15% of pediatric elbow fractures. These injuries frequently occur in association with intra-articular incarceration of the fracture fragment, elbow dislocation, ulnar nerve insult

 **child develops proteinuria of 3.5g/day. the mechanism for development of edema?---->Decreased plasma colloid pressure**

Lower serum oncotic pressure causes fluid to accumulate in the interstitial tissues. Sodium and water retention aggravates the edema.

**Vasodilatation and hypotension are features of ---->Septic**

The predominant hemodynamic feature of septic shock is arterial vasodilation. ... Diminished peripheral arterial vascular tone may cause blood pressure to be dependent on cardiac output, so that vasodilation results in hypotension and shock

 **The most suitable donor for her will be?---->   Identical twin**

identical twins share the same genetic makeup and are the best donors for each other.

**Patient with hypoxia, PO2 55mmhg, Hb 16, no history of poisoning or blood loss. Diagnosis
---->Hypoxic hypoxia**

Hypoxemic Hypoxia Low oxygen tension in the arterial blood (PaO2); due to the inability of the lungs to properly oxygenate the blood. Causes include hypoventilation, impaired alveolar diffusion, and pulmonary shunting.

**Dec hemoglobin as in anemia, carbon monoxide poisoning will not cause hyperoxia because?
---->Arterial PO2 normal**

carbon monooxide poisoning or methheamoglobin formation decreases two variables ,SO2 and CO2, where the PO2 remains normal and results in toxic hypoxemia.

 **MOA of acetazolamide?---->Decreases hydrogen secretion and increase excretion of Na and K**

Acetazolamide inhibits carbonic anhydrase, an enzyme which is responsible for the small amount of active Na+ reabsorption in the proximal tubule in exchange for H+ secretion into the tubule

**Anterior pituitary lobe surgery done, first lost?---->Menstruation**

GnRH stimulates anterior pituitary to secrete FSH and LH for causing follicular maturation and ovulation repectively.After surgery it results in loss of menstrual cycle.

 **Derivative of Neural crest- is?
---->Dorsal root ganglia**

The neural crest is a migratory population of cells that produces many diverse structures within the embryo. Trunk neural crest cells give rise to such structures as the dorsal root ganglia (DRG) and sympathetic ganglia (SG), which form in a metameric pattern along the anterior-posterior axis of the embryo.

**Newly diagnosed cases is expressed as?---->Incidence**

Incidence is the rate of new (or newly diagnosed) cases of the disease. It is generally reported as the number of new cases occurring within a period of time (e.g., per month, per year).

**Two-point discrimination increase by?---->Lateral inhibition**

Lateral inhibition is the ability excited neurones have to inhibit the activity of neighbouring neurones. This prevents the spread of an action potential laterally. The result of this is an increased contrast in excitation between neighbouring neurones, allowing increased sensory acuity

**increases pancreatic secretion and releases Ca from sarcoplasm?---->CCK**

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**Pleomorphism, Rete ridges, loss of polar ity and increased nuclear to cytoplasmic ratio. What is the diagnosis?---->Verrucous CA**

In optimally sampled material, the histology of verrucous carcinoma includes a papillary or verrucous surface epithelium with marked keratosis composed of cytologically bland squamous epithelium and subtle, pushing infiltration of the underlying dermis. A heavy inflammatory cell inifltrate may be present in the stroma.

**Hormones for lacto genesis is?---->Oxytocin, prolactin and cortisol**

The role of all the following hormones in lactogenesis are described: prolactin; adrenocorticotropin (ACTH, which stimulates glucocorticoid secretion); estrogens; placental lactogens. Maintenance of intense lactation also depends on a complex of hormones. Prolactin seems to be the most important hormone at this stage of the process

**Carpal tunnel syndrome, movement of thumb is affected?---->Opposition**

Carpal tunnel syndrome is a common condition that causes pain, numbness, and tingling in the hand and arm. The condition occurs when one of the major nerves to the hand — the median nerve — is squeezed or compressed as it travels through the wrist.

**Common site of fertilization is?---->   Uterine tubes**

The ampulla is the third portion of the fallopian tube. It is an intermediate dilated portion, which curves over the ovary. It is the most common site of human fertilization.

 **ECG shows S1, Q3, T3. appropriate test ---->   Gallium scan**

Pulmonary edema is a condition caused by excess fluid in the lungs. ... Pink, frothy sputum when you cough and breathlessness.

**Posterior thyroid is spared to avoid damage to?---->   Parathyroid gland**

A subtotal thyroidectomy is typically defined as the removal of most of the gland, sparing about 2 g from the posterior portion bilaterally, because this might minimize the risk of recurrent laryngeal nerve (RLN) damage, hypothyroidism, and hypoparathyroidism

**in ligation of Superior thyroid artery there is increased risk of damage to ---->External laryngeal nerve**

This artery must be ligated at the thyroid when conducting a thyroidectomy. ... Furthermore, the external laryngeal branch of the superior laryngeal nerve courses in close proximity to the superior thyroid artery, making it at risk for injury during surgery

**IV B12 is used in---->ileal resection**

Retention of terminal ileum tends to preserve vitamin B12 absorption capacity. Thus, if more than 60 cm of terminal ileum is removed, fat and B12 malabsorption are likely. The Schilling test is an indicator of the degree of terminal ileal dysfunction

**Investigation for Hashimotos thyroiditis?---->Anti-thyroglobulin and anti TPO**

Anti-thyroid antibodies (ATA) tests, such as the microsomal antibody test (also known as thyroid peroxidase antibody test) and the anti-thyroglobulin antibody test, are commonly used to detect the presence of Hashimoto's thyroiditis

**Drug of choice for traveler diarrhea is?---->   Norfloxacin**

Antibiotics should be used to treat severe travelers' diarrhea. Azithromycin is preferred to treat severe travelers' diarrhea. Fluoroquinolones may be used to treat severe, nondysenteric travelers' diarrhea. Rifaximin may be used to treat severe, nondysenteric travelers' diarrhea.

**Heart muscles work as syncytium because of?---->   Gap junctions**

Gap junctions are a specialized intercellular connection between a multitude of animal cell-types. They directly connect the cytoplasm of two cells, which allows various molecules, ions and electrical impulses to directly pass through a regulated gate between cells

**Necrosis seen in heart and kidney?---->Coagulative necrosis**

Coagulative necrosis occurs primarily in tissues such as the kidney, heart and adrenal glands. Severe ischemia most commonly causes necrosis of this form. Liquefactive necrosis (or colliquative necrosis), in contrast to coagulative necrosis, is characterized by the digestion of dead cells to form a viscous liquid mass.

**thick mucoid sputum jelly like. Organism ---->Klebsiella**

Klebsiella species pneumonia is classically associated with a cough productive of red currant-jelly sputum. Anaerobic infections often produce foul-smelling or bad-tasting sputum

**Hypoxic vasoconstriction occurs in?---->Lung**

Hypoxic pulmonary vasoconstriction (HPV), also known as the Euler-Liljestrand mechanism, is a physiological phenomenon in which small pulmonary arteries constrict in the presence of alveolar hypoxia (low oxygen levels).

**Drug of choice for severe Clostridium difficile infection is?---->   Metronidazole**

Oral metronidazole and oral vancomycin have similar efficacy rates in treating diarrhea caused by C difficile in mild to moderate infection but not in severe disease. ... For patients who are unable to tolerate oral medication, intravenous metronidazole is effective.

 **the infection is highly transmissible?---->HBsAg +ve and HBeAg +ve**

A positive surface antigen means HBV is. present and can spread to others. A. positive HBeAg confirms actively. replicating virus

 **Common Dysplastic tissue---->Skin**

Dysplasias on mainly microscopic scale include epithelial dysplasia and fibrous dysplasia of bone. Dysplasias on mainly macroscopic scale include hip dysplasia, myelodysplastic syndrome and multicystic dysplastic kidney.

**soldier posted at high altitude. PCV raised. Cause is?---->Secondary polycythemia**

Secondary polycythemia is the overproduction of red blood cells. ... Red blood cells are constantly being manufactured in your bone marrow. If you move to a higher altitude where oxygen is rarer, your body will sense this and begin to produce more red blood cells after a few weeks

 **diet contains mainly burgers. Blood picture shows macrocytic anemia, increase MCV. Deficency---->Folic acid**

Most folate-deficiency anemia is caused by a lack of folic acid in the diet. Leafy vegetables, citrus fruits, beans, and whole grains are natural sources of folic acid. Folate-deficiency anemia in pregnancy may cause a neural tube defect. This is when the brain or spinal cord doesn't develop normally.

**diabetic non-healing ulcer on the foot with sensory loss. ---->Angiopathy and neuropathy**

Non-healing ulcers commonly occur in people with diabetes, particularly if their blood sugar levels are too high or there is a history of smoking. ... It also leads to damage of much smaller blood vessels. This can damage nerves and leads to loss of sensation in the feet making the feet vulnerable to trauma.

**autoantibody for SLE is?---->ANA**

Subtypes of antinuclear antibodies include anti-Smith and anti-double stranded DNA (dsDNA) antibodies (which are linked to SLE) and anti-histone antibodies (which are linked to drug-induced lupus). ... The anti-dsDNA antibody titers also tend to reflect disease activity, although not in all cases.

**Nucleus ambiguous lies in?---->Medulla**

The nucleus ambiguus (literally "ambiguous nucleus") is a group of large motor neurons, situated deep in the medullary reticular formation named by Jacob Clarke.

**relation of jugular vein is with---->Sternocleidomastoid**

The internal jugular vein originates at the jugular foramen and descends to join the subclavian vein. In the mid to lower neck, it lies lateral and then anterolateral to the carotid artery. At the level of the thyroid cartilage, the vein lies deep to the sternocleidomastoid muscle.

**Cytokeratin are used for?---->Intermediate filament**

They are an important component of intermediate filaments, which help cells resist mechanical stress. Expression of these cytokeratins within epithelial cells is largely specific to particular organs or tissues. Thus they are used clinically to identify the cell of origin of various human tumors.

 **Disorganized growth mass with mature tissue is known

---->Hamartoma**

hamartoma is a mostly benign,[2] local malformation of cells that resembles a neoplasm of local tissue but is usually due to an overgrowth of multiple aberrant cells, with a basis in a systemic genetic condition, rather than a growth descended from a single mutated cell (monoclonality), as would typically define a benign neoplasm/tumor

**common cardiac
anomaly in Premature babies is?
---->Patent ductus arteriosis**

The most common heart problems premature babies experience are patent ductus arteriosus (PDA) and low blood pressure (hypotension). PDA is a persistent opening between the aorta and pulmonary artery.

**End arteries best example?
---->Central Retinal artery**

Central artery of retina and labyrinthine artery of internal ear are the best examples of absolute end arteries. Central branches of cerebral arteries and vasa recta of mesenteric arteries. Arteries of spleen, kidney, lungs and metaphyses of long bones

**Regarding Vibrio cholera: ---->Resistant to alkaline medium**

The cholera vibrios are Gram-negative, slightly curved rods whose motility depends on a single polar flagellum. Their nutritional requirements are simple. ... Vibrios are sensitive to low pH and die rapidly in solutions below pH 6; however, they are quite tolerant of alkaline conditions.

**The feature of a UMNL is?---->Hyper reflexes**

Signs of UMN disease usually include spasticity of the muscles (a stiffness and resistance to movement), brisk reflexes and a Babinski sign, (a reflex that is a sign of damage to the nerve paths connecting the brain to the spinal cord).

**causes chronic atrophic gastritis and duodenal ulcer?
---->H. pylori**

A bacterial infection by Helicobacter pylori or H. pylori, usually causes atrophic gastritis. ... Atrophic gastritis often starts when a person is a child. Left untreated, it will get worse over time and can lead to stomach ulcers

**principal body defense cells against tumors?
---->NK cells**

defense against tumors immune system activates cell mediated and humoral immune responses, cell mediated immune system protects the body from itself by controlling cancerous cells, this includes activation of Cytotoxic T Lymphocytes, Natural Killer cells, Macrophages, Dendritic Cells, Lymphokines, etc., where as ...

**Function of enzyme? ---->Decrease activation energy of reactants**

Enzymes allow many chemical reactions to occur within the homeostasis constraints of a living system. ... Many enzymes function by lowering the activation energy of reactions. By bringing the reactants closer together, chemical bonds may be weakened and reactions will proceed faster than without the catalyst.

**Balance between phosphorus and calcium is regulated by?
---->PTH**

A hormone called parathyroid hormone (PTH) regulates the levels of calcium and phosphorus in your blood. When the phosphorus level is measured, a vitamin D level, and sometimes a PTH level, is measured at the same time. Vitamin D is needed for your body to take in phosphate.

**Insulin independent uptake occurs in?---->Hypothalamus/exercising muscle**

GUYTON = exercising muscle ||BUT|| FIRST AID: brain

**Osmotic pressure of solutes depends on?---->   Increase no of particles**

Osmotic pressure is a 'colligative' property, like freezing point depression, which means that it depends on the number of particles in solution but not on their chemical identity.

**G protein coupled receptor?---->cAMP**

In the field of molecular biology, the cAMP-dependent pathway, also known as the adenylyl cyclase pathway, is a G protein-coupled receptor-triggered signaling cascade used in cell communication.

**Most potent salty taste is produced by?---->   Taurine**

Taurine is a β-amino acid present in high concentrations in different tissues of mammals including all areas of the CNS. ... Taurine exerts its neuronal inhibitory effect through the activation of GABAA receptors (GABAAR) but with less affinity than the specific agonists of each recepto

**DOC for pulmonary edema is?---->Furosemide**

furosemide (Lasix), to decrease the pressure caused by excess fluid in your heart and lungs

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