

# Rapid Review

## AIPGMEE 2004

Dr. Paresh Koli

[WWW.DESIMEDICOS.COM](http://WWW.DESIMEDICOS.COM)

## Anatomy

1. Integrity of long thoracic nerve after damage due to surgery can be tested bedside by asking patient to raise the arm above the head on the affected side.
2. Inhaled foreign body is likely to lodge in right lung because of reasons that right principal bronchus is more vertical than left bronchus, tracheal bifurcation directs foreign body to the right lung and right inferior lobar bronchus is in continuation with principal bronchus.
3. While exposing the kidney from behind nerves liable to injury are Iliohypogastric nerve, subcostal nerve and Iliohypogastric nerve.
4. Inflammation of Isthmus of uterine tube, inferior part of anal canal and big toe could cause enlarged superficial inguinal lymph nodes.
5. Intricately and prodigiously looped system of veins and arteries that lie on the surface of the epididymis is known as Pampiniform plexus.
6. Movement at Atlanto-axial joint permits a person to look towards right or left.
7. 1<sup>st</sup> costochondral joint is a Synchondrosis.
8. Articular cartilage is characterised by rich nerve supply, avascular and lacking capacity to regenerate.
9. Secondary lymphoid organs includes lymph nodes, spleen and subepithelial collection of lymphocytes.
10. Y chromosome is acrocentric.
11. Couinaud's segment nomenclature is based on the position of Hepatic veins and portal vein.

## Physiology

1. During acclimatization to high altitude there is increase in minute ventilation, sensitivity of central chemoreceptors and sensitivity of carotid body.
2. Concentration of O<sub>2</sub> in blood 0.0025 ml/ml of blood and atmospheric pressure is 760 mmHg. Then O<sub>2</sub> tension in blood is 80 mmHg.
3. Patients having acute cardiac failure do not show oedema because there is a fall in systemic capillary hydrostatic pressure.
4. During cardiac cycle the opening of aortic valve takes place at the end of isovolumetric contraction.
5. Sertoli cells have receptors for FSH.
6. Aromatase is associated with conversion of androgen to oestrogen in the growing ovarian follicles.
7. Before onset of puberty, GnRH neurons are under inhibitory control of GABA.
8. ADH is circulated in plasma in free form.
9. Main excitatory neurotransmitter in CNS is Glutamate.
10. Force of muscle contraction can be increased by increasing frequency of activation of motor units, increasing number of motor units activated and recruiting larger motor units.
11. Quick method to determine acid base composition of blood based on PCO<sub>2</sub> is Siggaard-Andersen nomogram.

## Biochemistry

1. Shine-Dalgarno sequence in bacterial mRNA is near AUG codon.
2. RNA polymerase does not require a Primer.
3. A segment of eukaryotic gene that is not represented in mature messenger RNA is known as Intron.
4. Enzyme that makes double stranded DNA copy from a single stranded RNA template molecule is known as Reverse transcriptase.
5. Glutamic acid is a homologous substitute for valine in hemoglobin.
6. Transmembrane region of proteins is likely to have a stretch of hydrophobic amino acids.
7. Chaperones assist in the 'folding' of other proteins.
8. Proteins targeted for destruction in eukaryotes are covalently linked to Ubiquitin.
9. Adenylate cyclase is membrane bound enzyme that catalyzes the formation of cyclic AMP from ATP.
10. Inositol triphosphate acts to increase release of Ca<sup>++</sup> from endoplasmic reticulum.
11. A small Ca<sup>++</sup> binding protein that modifies activity of many enzymes and other proteins in response to changes of Ca<sup>++</sup> concentration is known as Calmodulin.
12. If a person on fat free carbohydrate rich diet continues to grow obese, VLDL is likely to be elevated in his blood.

13. Vitamin B6 deficiency due to prolonged use of oral contraceptive could lead to increased urinary xanthurenic acid excretion, neurological symptoms by decreased synthesis of biogenic amines and decreased hemoglobin level.
14. Selenium is known to influence body's ability to handle oxidative stress.
15. In brain ischemia level of creatinine kinase-I increases.
16. Young man after eating dairy products gets distended stomach, uncomfortable, gas and diarrhoea. Most likely enzyme he is deficient in is Sucrase.
17. Most conserved parameter in human and bacterial Cytochrome C who has 50% identity of amino acid sequence with that of human is Tertiary structure.
18. Alpha helix and beta pleated sheets are examples of Secondary structure of proteins.
19. Metabolic changes in genetic disorder which renders fructose 1,6 bisphosphatase in liver less sensitive to regulation by fructose 2,6 bisphosphate are level of fructose 1,6 bisphosphate lower than normal, less pyruvate is formed and less ATP generation.
20. Xeroderma pigmentosum is produced as a result of a defect in DNA polymerase and DNA ligase.

## Pathology

1. Lipoxins belong to Arachidonic acid metabolites.
2. Thrombin is a procoagulant protein.
3. Bcl-2 is an antiapoptotic gene.
4. Laminin is the most abundant glycoprotein present in basement membrane.
5. Trk A expression is associated with good outcome in neuroblastoma.
6. Ret Proto Oncogene defect is associated with development of medullary carcinoma of thyroid.
7. 46 XXY male are sexually underdeveloped with rudimentary testes and prostate glands, sparse pubic and facial hair, long arms and legs and large hands & feet.
8. Mrs A has two sisters with sons having kinky hair disease who dies and her mother's brother also died from same. Possible mode of inheritance is X linked recessive.
9. Familial hypercholesterolemia is autosomal dominant metabolic disorder.
10. Monosomy 7 is the most common cytogenetic abnormality in adult myelodysplastic syndrome (MDS).
11. In hairy cell leukemia splenomegaly is conspicuous, cells are positive for Tartrate resistant acid phosphatase and cells express CD25 consistently.
12. Good prognostic feature of Hodgkin's disease includes hemoglobin >10 gm/dL, WBC count <15000/mm<sup>3</sup> and age <45 years.
13. Light microscopy after 30 hours of an MI is likely to reveal Necrotic myofibers with presence of neutrophils.
14. Serum C3 is persistently low in membranoproliferative glomerulonephritis, lupus nephritis and glomerulonephritis related to bacterial endocarditis.
15. Associated with low complement levels are lupus nephritis, mesangiocapillary glomerulonephritis and post infectious glomerulonephritis.
16. 70 year old chronic tobacco chewer man with six months history of large, fungating, soft papillary lesions in oral cavity, lesion has penetrated into mandible, lymph nodes not palpable, biopsies show benign appearing papillomatosis with hyperkeratosis and acanthosis infiltrating subjacent tissues. Most likely diagnosis is Verrucous carcinoma.
17. Blood in vessels normally does not clot because vascular endothelium is smooth and coated with glycocalyx.

## Microbiology

1. Hapten needs carrier to induce immune response.
2. Serotype of E. coli which could cause hemorrhagic colitis is O 157:H7.
3. Shiga toxin acts by inhibiting protein synthesis.
4. Fimbrial adhesions of diarrheagenic E. coli appropriate for vaccine candidates includes CFA-1, CS-2 and K 88 but not P<sub>1</sub>-pilli.
5. Toxins are implicated as major pathogenetic mechanism in Vibrio cholerae, Shigella sp. and Staphylococcus aureus but not in Vibrio parahaemolyticus.

6. Smear from pustule developed from skinning of dead animal shows gram positive bacilli in long chains positive for McFadyean's reaction. Most likely aetiological agent is *Bacillus anthracis*.
7. Diagnostic serological tests for brucellosis includes 2 Mercuric sulphide test, complement fixation test and coombs' test.
8. For gas gangrene gas is invariably present in muscle compartments.
9. Woman with bad obstetric history has fever, blood culture shows gram positive small to medium coccobacilli that are pleomorphic, occurring in short chains, wet mount from culture shows tumbling motility. Most likely organism is *Listeria monocytogenes*.
10. Genital ulcer smear on gram stain shows gram negative coccobacilli. Most appropriate media for culture would be Chocolate agar with isovital X.
11. Most sensitive method for detecting cervical *Chlamydia trachomatis* infection is Polymerase chain reaction.
12. EB virus has been implicated in Hodgkin's disease, non-hodgkin's lymphoma and nasopharyngeal carcinoma.
13. Laboratory diagnosis of viral respiratory tract infection can be established by Detection of virus specific IgM antibodies in single serum specimen, demonstration of viral antigens by indirect immunofluorescence assay in nasopharyngeal washings and isolation of viruses using centrifugation enhanced culture.
14. Poliovirus is transmitted by feco-oral route, asymptomatic infections are common in children and live attenuated vaccine produces herd immunity.
15. Most likely aetiological agent for a young pregnant woman presenting with fulminant hepatic failure is Hepatitis E virus.
16. Clinical features associated with Enteroviruses includes Myocarditis, pleurodynia and herpangina.
17. Kyasanur forest disease (KFD) is transmitted by ticks.

## Pharmacology

1. Highly ionized drugs are excreted mainly by kidneys.
2. In Phase IV of a clinical trial ethical clearance is not required.
3. Sympathomimetic drugs are useful in therapy of acute decompensated heart failure, hypotension and hypertension.
4. Biguanides don't stimulate insulin release, they decrease hepatic glucose production and they can be combined with sulfonylureas.
5. Alpha glucosidase inhibitor reduces intestinal absorption of carbohydrate, they are effective in both type 1 & 2 diabetes and can be used with other oral hypoglycemic agents.
6. Anticancer drugs which cause bone marrow depression includes Chlorambucil, daunorubicin and doxorubicin.
7. Advantages of using Raloxifene over estrogen in postmenopausal women includes reduced fracture rates, avoids endometrial hyperplasia and no increase in incidence of breast carcinoma.
8. Drugs binding to GABA receptor chloride channels includes Ethanol, alprazolam and zolpidem.
9. 60 year old man with rheumatic mitral stenosis with atrial fibrillation is on therapy for fast ventricular rate. After treatment he developed a regular pulse of 64/min. Most likely drug used is Digoxin.
10. Adverse effect of chronic amiodarone therapy includes pulmonary fibrosis, hypothyroidism and hyperthyroidism.
11. Ranitidine and sucralfate cannot be prescribed together because Sucralfate inhibits absorption of ranitidine.
12. Drug implicated for prolonging QT interval in a premature baby is Cisapride.
13. Supraspinal analgesia is ascribed to delta type of opioid receptors.
14. Morphine can be used in asthma, hypothyroidism and diabetes.
15. Sulfonamide administration can cause crystalluria, can cause kernicterus in newborn and they are of value in treatment of infections due to nocardia species.
16. Ampicillin and chloramphenicol are mutually antagonistic in action.
17. Trovafloxacin does not require adjustment in a patient with creatinine clearance of <50 mg/min.
18. Cefoperazone also has antipseudomonal action.

19. Streptomycin is contraindicated for treatment of TB in pregnancy.
20. Patient with MDR TB can be treated with amikacin, ciprofloxacin and clarithromycin.
21. Hormonal agents used against breast cancer includes letrozole, exemestane and tamoxifen.
22. Most active chemotherapeutic agent in treatment of leiomyosarcoma are Adriamycin and Doxorubicin.
23. There are clinically significant interactions between pyridoxine and INH, levodopa and hydralazine.
24. Tacrolimus is a macrolide antibiotic, it is indicated for the prophylaxis of organ transplant rejection and glucose intolerance is a well-recognised side effect.
25. BAL is useful in treating poisoning due to Lead, organic mercury and arsenic.

## Forensic Medicine

1. Identity of Mutilated body of a prisoner who ran away can be established by Anthropometry.
2. Cephalic index of Indian population is between 70-75.
3. Eye injury which develops into corneal opacity and keratoplasty done. Medicolegally such injury is Grievous.
4. Deep blue colour of hypostasis is seen in death due to poisoning by Aniline dyes.
5. Postmortem calorificity can be seen in death due to Septicemia.
6. Contre-coup injury is seen in brain.
7. Disputed paternity can be solved using blood grouping, HLA typing and DNA fingerprinting.
8. Hydrogen peroxide is used in Benzidine test, Phenolphthalein test and Orthotolidine test.
9. Irrelevant talking, dry mouth, hot skin, dilated pupils, staggering gait and slurred speech are diagnostic of Datura poisoning.
10. Paraesthesia of hands and feet, Mees lines in nails and rain drop pigmentation in hands are features of Arsenic poisoning.
11. Most reliable method of estimating blood alcohol level is Gas liquid chromatography.
12. After drinking liquor from local shop man develops confusion, vomiting and blurring of vision. He should be given Ethyl alcohol for treatment.
13. A heroin addict is found unconscious. Examination reveals tachycardia, shallow breathing, constricted pupil, BP 100/70 mmHg, brisk deep tendon reflex, planters are flexors on both sides. Best treatment is naloxone.

## Preventive and Social Medicine

1. A study began in 1970 with a group of 5000 adults in Delhi who were asked about their alcohol consumption. The occurrence of cancer were studied in this group between 1990-1995. This is an example of Concurrent cohort study.
2. Proxy measures for incubation period includes latent period, serial interval and generation time.
3. Best vaccination advice for 3 ½ year old child who hasn't received primary immunisation is BCG, DPT<sub>1</sub>, OPV<sub>1</sub>, measles, vitamin A.
4. In DPT vaccine aluminium salt has an adjuvant effect, whole killed bacteria of Bordetella pertussis has an adjuvant effect and presence of acellular pertussis component increases its immunogenicity.
5. For tetanus immunisation a 37 weeks pregnant woman visiting antenatal clinic for 1<sup>st</sup> time give a dose of tetanus toxoid (TT) and explain to her that it will not protect newborn and she should take second dose after 4 weeks even if she delivers in meantime.
6. 4 month old child brought to PHC for cough, fever along with chest indrawing and RR 45/min. management includes giving 1<sup>st</sup> dose of antibiotics and refer urgently to hospital.
7. Most appropriate test to assess prevalence of tuberculosis infection in community is Tuberculin test.
8. According to International health regulation, there is no risk of spread of yellow fever if the Aedes aegyptii index remains below 1%.
9. Modes of transmission of leprosy includes breast milk, insect bite and droplet infection.
10. Multibacillary leprosy is diagnosed when there are more than 5 skin patches, new case detection rate is an indicator for incidence of leprosy and target for elimination of leprosy is to reduce prevalence to less than 1/10,000 population.
11. Schedule for prescribing Vitamin A to a 10 month old child weighing 8 kg with bitots spots in both eyes is 1 lakh units IM on day 0, 1 and 14.

12. Current recommendation for breast feeding is that exclusive breast feeding should be continued 4 months of age followed by supplementation with additional foods.
13. For breast milk coefficient of uptake of iron is 70%, calcium absorption of human milk is better than that of cow's milk and it provides about 65 kcals/100 ml.
14. Pregnancy rate of Lippes loop and Cu-T 200 are similar, IUD can be used for emergency contraception within 5 days and levonorgestrel releasing IUD has an effective life of 5 years.
15. National population policy goals includes To reduce infant mortality rate to 30/1000 live births, to reduce maternal mortality rate 100/10000 live births and 100% registration of births, deaths, marriages and pregnancies.
16. Essential component of RCH programme in India includes prevention and management of unwanted pregnancies, maternal care including antenatal delivery & postnatal services and managements of reproductive tract infections and sexually transmitted infections.
17. 'Five clean practices' under strategies for elimination of neonatal tetanus includes clean surface for delivery, clean hand of attendant and new blade for cutting cord.
18. Dietary changes advocated by WHO for prevention of heart diseases includes reduction in fat intake to 20-30% of caloric intake, consumption of saturated fats be limited to less than 10% of total energy intake and reduction of cholesterol to below 100 mg per 1000 kcal/day.
19. Multipurpose worker scheme in India was introduced following recommendation of Kartar singh committee.
20. If systolic blood pressure in a population has mean of 130 mmHg and a median of 140 mmHg, the distribution is said to be Negatively skewed.
21. If prevalence of diabetes is 10% the probability that 3 people selected at random from the population will have diabetes is 0.001.
22. If grading of diabetes is classified as 'mild', 'moderate' and 'severe' the scale of measurement used is Ordinal.
23. Usefulness of a screening test in a community depends on its Sensitivity.

## Medicine

1. DIC differs from thrombotic thrombocytopenic purpura in that DIC is most likely characterised by decreased coagulation factor levels.
2. 5 year old girl with progressively increasing pallor since birth and hepatosplenomegaly. Most relevant test for achieving diagnosis is Hb electrophoresis.
3. Elevated serum ferritin, serum iron and percent transferrin saturation are most consistent with diagnosis of Hemochromatosis.
4. Bone marrow transplantation can be used as a treatment for Osteopetrosis, Adrenoleukodystrophy and Hurler's syndrome.
5. In sickle cell disease patient may require blood transfusions, acute infections is most common cause of mortality before 3 years of age and there is positive correlation between concentrated HBS and polymerization of HBS.
6. Features seen in cardiac tamponade includes pulsus paradoxus, diastolic collapse of right ventricle on echocardiogram and electrical alternans.
7. In hematuria of glomerular origin urine is characterized by the presence of Red cells cast, crenated red cells and dysmorphic red cells.
8. Polycystic disease of kidney may have cysts in Liver, Pancreas and Spleen.
9. 40 year old with painless hematuria, ballotable mass over right flank. Right nephrectomy done shows cells with clear cytoplasm, areas of hemorrhage and necrosis. Cytogenetic analysis of this mass is likely to reveal an abnormality of Chromosome 3.
10. Drug of 1<sup>st</sup> choice in non-gonococcal urethritis is Doxycycline.
11. HIV patient with visual disturbance, bilateral retinal exudates and perivascular hemorrhages. Most likely cause of retinitis is Cytomegalovirus.
12. Following needle stick injury infectivity of HIV is reduced by administration of nucleoside analogues.
13. Nucleoside reverse transcriptase inhibitor includes Zalcitabine, Lamivudine and Didanosine.

14. Patient with pulmonary TB on INH, rifampin, pyrazinamide and ethambutol is found to be HIV positive with CD4 count of 100 and viral load more than 50,000 copies/ml. Antiretroviral drug to be avoided is Ritonavir.
15. HbA1C level in blood explains Long term status of blood sugar.
16. Best marker to diagnose thyroid related disorder is TSH.
17. Occurrence of hyperthyroidism following administration of supplementary iodine to subjects with endemic iodine deficiency goiter is known as Jod-Basedow effect.
18. In amiodarone induced thyroid dysfunction Hyperthyroidism is common in iodine deficient areas, amiodarone inhibits deiodinase activity and amiodarone therapy is associated with initial reduction of serum T4 levels.
19. 28 year old woman has put on 10kg over 30 years, has oligomenorrhoea followed by amenorrhoea for 8 months, BP 160/100 mmHg. Most appropriate investigation is plasma cortisol.
20. Loss of diurnal variation is earliest manifestation of Cushing's syndrome.
21. Retardation of skeletal maturity can be caused by Chronic renal failure, hypothyroidism and protein energy malnutrition (PEM).
22. 21 year old girl with primary amenorrhoea, height 153 cm, weight 51 kg, well developed breast, no pubic or axillary hair and no hirsutism. Most probable diagnosis is Complete androgen insensitivity syndrome.
23. 30 year old woman with secondary amenorrhoea for 3 years along with galactorrhoea. Most likely cause of her symptoms would be Prolactinoma.
24. 55 year old on bed rest for past 10 days, complains of breathlessness and chest pain, chest X-ray normal. Next step in investigation should be Lung ventilation perfusion scan.
25. 20 year old woman with bilateral conductive deafness, palpable purpura on legs and hemoptysis. Radiograph of chest shows thin walled cavity in left lower zone, TLC 12000/mm<sup>3</sup>, red cell casts in urine and serum creatinine 3 mg/dL. Most probable diagnosis is Henoch-Schonlein purpura.
26. 18 year old with gangrene in 3<sup>rd</sup> & 4<sup>th</sup> fingers for last 2 weeks, BP 170/110 mmHg, all peripheral pulses palpable, Blood And urine tests normal, antinuclear antibodies, antibody to DsDNA and anti-neutrophil cytoplasmic antibodies negative. Most likely diagnosis is Polyarteritis nodosa.
27. Woman with low grade fever of 6 weeks, chest radiograph reveals hilar adenopathy with clear lung fields. Investigations helpful in DD includes Serum ACE levels, CECT of chest and Gallium scan.
28. 80 year old asymptomatic woman has monoclonal spike on serum electrophoresis (IgG levels 1.5 g/dL), bone marrow reveals plasma cells of 8%. Most likely diagnosis is Monoclonal gammopathy of unknown origin.
29. 12 year old with tremors, emotional lability, golden discolouration in Descemet's membrane. Most likely diagnosis is Wilson's disease.
30. Features of Alzheimer's disease includes Neurofibrillary tangles, Senile (neuritic) plaques and amyloid angiopathy.
31. Causes of neuropathies with predominant motor involvement includes acute inflammatory demyelinating polyneuropathy, acute intermittent porphyria and lead intoxication.
32. Common causes of viral encephalitis includes japanese encephalitis virus, nipah virus and CMV.
33. Young male develops fever, headache, confusional state, focal seizures and right hemiparesis. MRI shows bilateral frontotemporal hyperintense lesion. Most likely diagnosis is Herpes simplex encephalitis.
34. Craniopharyngioma does not spread via CSF.
35. 15 year old with epilepsy treated with valproate and phenytoin in therapeutic range. Adverse effects of valproate includes weight gain of 5 kg, serum alanine aminotransferase 150 IU/L and rise in serum ammonia level by 20 mcg/dL.
36. Persistent vomiting most likely causes acidic urine excretion and hypochloremia.
37. Idiopathic edema of women is not related to menstrual cycle, increased water retention in upright position and ACE inhibitors can be useful in some cases.
38. In patient with cirrhosis of the liver site of obstruction in portal system is in the Sinusoids.
39. In Budd Chiari syndrome the site of venous thrombosis is Hepatic veins.
40. Short bowel syndrome is characterised by Diarrhea, weight loss and steatorrhoea.
41. Estimation of testosterone, estradiol and LH is useful in investigation a case of gynaecomastia.

## Surgery

1. Biopsy from mole on foot shows cytological atypia of melanocytes and diffuse epidermal infiltration by anaplastic cells, which are also present in papillary and reticular dermis. Most likely diagnosis is Melanoma, Clark level IV.
2. Chronic lymphadenopathy limb is predisposed to thickening of the skin, recurrent soft tissue infections and sarcoma.
3. 1<sup>st</sup> treatment of rupture of varicose veins at ankle should be direct pressure and elevation.
4. Young man with pulmonary TB presents with massive recurrent hemoptysis. For angiographic treatment which vascular structure should be evaluated first is Bronchial artery.
5. 60 year old man with carcinoma right lung, CECT shows tumour 5\*5 cm in Upper lobe and another 2\*2 cm size tumor nodule in middle lobe. Primary modality of treatment is Surgery.
6. Thoracic extension of cervical goiter is usually approached through neck.
7. Pancreatitis, pituitary tumor and pheochromocytoma may be associated with Medullary carcinoma of thyroid.
8. 20 year old male with chronic constipation, headache, palpitations, marfanoid habitus, neuromas of tongue, medullated corneal nerve fibers and nodules of 2\*2 cm size in left lobe of thyroid gland. This patient is a case of MEN IIB.
9. Most common histological type of thyroid cancer is Papillary type.
10. Commonest site of oral cancer among Indian population is alveo buccal complex.
11. Most common malignant tumor of adult males in India is Oropharyngeal carcinoma.
12. Most common site of intestinal obstruction in gallstone ileus is Ileum.
13. Gallstone pancreatitis has worst prognosis.
14. Injection sclerotherapy is ideal for Internal haemorrhoids.
15. For rectal carcinoma 5 cm from anal verge, the best acceptable operation is Abdominal perineal resection.
16. Significant risk factors for colonic carcinoma in an adenomatous polyp includes villous histology, size >2 cm and atypia.
17. 55 year old male with painless terminal haematuria, solitary papillary tumor on cystoscopic Examination, histopathological Examination of completely resected tumor is suggestive of grade III transitional cell carcinoma with no muscle invasion. Further management is best done by Intravesical BCG.
18. Unilateral undescended testis is ideally operated around 12 month's age.
19. Important causes of hyponatremia includes gastric fistula, excessive vomiting and prolonged Ryle's tube aspiration.
20. Isopropyl alcohol is used as preservative while packing catgut suture.
21. Indications of radiotherapy in pleomorphic adenoma of parotid includes involvement of deep lobe, microscopically positive margins and malignant transformation.

## Obstetrics and Gynaecology

1. Ultrasonographic fetal growth parameters includes biparietal diameter, head circumference and femur length.
2. Investigation of choice of pregnant lady at 18 weeks of pregnancy with past history of delivering baby with Down's syndrome is Amniocentesis.
3. Couple have 2 months old baby with Down's syndrome. Karyotype of mother shows translocation variety of Down's syndrome. Investigation advised to parents before next pregnancy is Karyotyping.
4. Pseudocholinesterase test on maternal serum is most useful in distinguishing between open neural tube defects and ventral wall defects in a fetus.
5. Screening by using maternal serum alpha fetoproteins helps to detect Neural tube defects, duodenal atresia and Omphalocele.
6. Antiprogestone compound RU-486 is effective for inducing abortion if the duration of pregnancy is 63 days.
7. A case of 35 weeks pregnancy with hydramnios and marked respiratory distress is best treated by Amniocentesis.

8. Anti-D prophylaxis should be given in Medical abortion for 63 days pregnancy, Amniocentesis at 16 weeks and manual removal of placenta.
9. Consequences of Rh incompatibility are not serious during 1st pregnancy because Antibodies are not able to cross placenta.
10. Serum ferritin is most sensitive for detection of iron depletion in pregnancy.
11. 37 year old multipara has blood picture showing hypochromic anisocytosis. This is most likely indicative of Combined iron and folic acid deficiency.
12. Drugs which could be used in pregnancy associated hypertension includes Nifedipine, Methyldopa and Hydralazine.
13. Indications for antiphospholipid antibody testing includes 3 or more consecutive trimester pregnancy losses, unexplained cerebrovascular accidents and early onset severe pre-eclampsia.
14. Risk factors for urinary tract infections in pregnancy includes diabetes, sickle cell disease and vesicoureteral reflux.
15. Rubella has highest risk of fetal infection in 1<sup>st</sup> trimester.
16. Pregnant woman at 32 weeks of gestation in preterm labour. Therapy with antenatal steroids to induce lung maturity in fetus may be given in prolonged rupture of membranes, pregnancy induced hypertension and diabetes mellitus.
17. Drugs effective for cervical ripening during pregnancy includes Prostaglandin E<sub>2</sub>, oxytocin and Misoprostol.
18. Candida vaginitis is most likely to be associated with a vaginal pH of 4.
19. Most appropriate method for collecting urine for culture in case of Vesicovaginal fistula is Foley's catheter.
20. A case of obstructed labour which was delivered by caesarian section complains of cyclical passage of menstrual blood in urine. Most likely site of fistula is Vesico-uterine.
21. Most likely diagnosis in a 27 year old obese woman presenting with oligomenorrhoea, infertility and hirsutism is Polycystic ovaries.
22. 50 year old woman with bilateral solid ovarian tumor, ascites, on endoscopy ulcerative growth in pyloric region of stomach seen. Most likely diagnosis is Carcinoma stomach with Krukenberg's tumor.
23. Choice of adjuvant treatment for endometrial carcinoma stage IA, grade I is no treatment.

## Paediatrics

1. 2 months old child is able to sustain head level with body when placed in ventral suspension.
2. Webbing of neck, increased carrying angle, low posterior hair line and short fourth metacarpal are characteristics of Turner syndrome.
3. Ataxia telangiectasia is characterised by chronic sinopulmonary disease, chromosomal breakage and IgA deficiency.
4. 10 year old has fractured femur. Biochemical evaluation revealed Hb 11.5 g/dL, ESR 18 mm in 1<sup>st</sup> hour, serum calcium 12.8 mg/dL, serum phosphorus 2.3 mg/dL, alkaline phosphatase 28 KA units and blood urea 32 mg/dL. Most probable diagnosis is Hyperparathyroidism.
5. 9 month old with lethargy, irritability, pallor since 6 months of age, severe pallor, Hb 3.8 mg, MCV 58 fl, MCH 19.4 pg/cell, osmotic fragility normal (target cells and normoblasts), and x-ray shows expansion of erythroid marrow. Most likely diagnosis is iron deficiency anemia.
6. 5 year old has fever on-off for past 2 weeks, petechial spots all over the body, increasing pallor for past 1 month, splenomegaly 2 cms below costal margins. Most likely diagnosis is Acute leukemia.
7. 5 day old full term male infant was severely cyanotic at birth. Prostaglandin E administered initially and later ballooned atrial septostomy was done which showed improvement in oxygenation. Most likely diagnosis is Transposition of great vessels.
8. 'Coeur en Sabor' shape of heart is seen in Tetralogy of Fallot.
9. Infant has cough and fever. X-ray shows bronchopneumonia. Viral causative organisms could be Parainfluenza virus, Influenza virus A and respiratory syncytial virus.
10. In neonatal cholestasis, if serum  $\gamma$ GTP (gamma glutamyl transpeptidase) is more than 600 IU/L most likely diagnosis is Biliary atresia.
11. Neonatal kidney achieves concentrating ability equivalent to adult kidney by 1 year old age.

12. Neural tube defects includes Myelomeningocele, Anencephaly and Encephalocele.
13. Features of absence seizures includes it is usually seen in childhood, 3 Hz spike wave in EEG and precipitation by hyperventilation.
14. 10 month old with 2 weeks history of fever, vomiting and alteration of sensorium. Cranial CT scan reveals basal exudates and hydrocephalus. Most likely etiological agent is Mycobacterium tuberculosis.
15. For Gaucher's disease enzyme replacement therapy is available.
16. Duchenne Muscular Dystrophy is a disease of Sarcolemmal junction.
17. Bacterial meningitis in children (2 months -12 years of age) is usually due to Streptococcus pneumoniae, Neisseria meningitidis and Haemophilus influenzae type B.
18. Essential features of ADHD includes lack of concentration , impulsivity and hyperactivity.
19. 25 year old woman had premature rupture of membranes, delivered male child who became lethargic and apneic on 1<sup>st</sup> day of birth and went into shock. Mother had h/o abortion 1 year back, vaginal swab culture showed  $\beta$ hemolytic colonies on blood agar, on staining gram positive cocci were seen. Most likely etiological agent is Streptococcus agalactiae.
20. Most common agent associated with neonatal bacterial meningitis is Streptococcus agalactiae.
21. For treatment of meningitis from Haemophilus influenzae in 2 year old child, most appropriate antimicrobial is 3<sup>rd</sup> generation cephalosporin.

## Orthopaedics

1. An army recruit, smoker and 6 months into training started complaining of pain at postero medial aspect of both legs, there was acute point tenderness and pain was aggravated on physical activity. Most likely diagnosis is Stress fracture.
2. In some old fractures cartilaginous tissue over fractured bone ends with cavity in between containing clear fluid. Condition is called as Pseudarthrosis.
3. Aseptic loosening in cemented total hip replacement, occurs as a result of hyperactivity response to High density polythene debris.
4. In fracture of olecranon, excision of proximal fragment is indicated in old ununited fractures, non articular fractures and elderly patient.
5. TB spine commonly affects body, lamina and pedicle of vertebra.
6. Complications of malunited colles fracture includes reflex sympathetic dystrophy (RSD), carpal tunnel syndrome and carpal instability.
7. Management of fat embolism includes oxygen, heparinization and pulmonary embolectomy.
8. Management plan for osteogenic sarcoma of lower end of femur must include Chemotherapy + Limb salvage surgery + Chemotherapy.

## Ophthalmology

1. Maximum density of goblet cells is seen in Nasal conjunctiva.
2. 10 year old with severe itching eye, ropy discharge and symptoms aggravated in summer. Most likely diagnosis is Vernal keratoconjunctivitis.
3. Arlt's line is seen in Trachoma.
4. Most important adjuvant therapy in a case of fungal corneal ulcer is Atropine sulphate eye ointment.
5. Polychromatic lustre is seen in Complicated cataract.
6. Best age to operate a 2 weeks old child with unilateral cataract to get the best visual results is four weeks.
7. Prominent ocular manifestation is associated with Marfan's syndrome is Ectopia lentis.
8. Latanoprost used topically in glaucoma primarily acts by increasing uveoscleral outflow.
9. 2 months old child presents with epiphora and regurgitation. Most probable diagnosis is Congenital dacryocystitis.
10. 'Photodynamic therapy' is used in eye for Wet AMD (age related macular degeneration).
11. Ocular emergencies includes Angle closure glaucoma, retinal detachment and central retinal arterial occlusion.
12. Most common condition of inherited blindness due to mitochondrial chromosomal anomaly is Leber's hereditary optic neuropathy.

13. Causes white pupillary reflex includes retinoblastoma, cataract and retrolental fibroplasia.

## ENT

1. In right middle ear pathology weber's test will be Lateralized to right side.
2. Meniere's disease is characterized by Vertigo, tinnitus and hearing loss.
3. Fordyce's (spots) granules in oral cavity arise from Sebaceous glands.
4. Peritonsillar space show collection of pus in 'quinsy'.
5. Bell's palsy is idiopathic ipsilateral paralysis of facial nerve.

## Skin

1. 30 year old male has severely itchy papulo-vesicular lesions on extremities, knees, elbows and buttocks for 1 year. Direct immunofluorescence staining of lesions showed IgA deposition at dermoepidermal junction. Most probable diagnosis is Dermatitis herpetiformis.
2. 5 year old male child has multiple hyperpigmented macules over trunk, on rubbing lesions with rounded end of pen, he developed urticarial wheal, confined to border of lesion. Most likely diagnosis is Urticarial vasculitis.
3. 25 year old man presents with recurrent episodes of flexural eczema, contact urticaria, recurrent skin infections and severe abdominal cramps and diarrhoea upon taking sea foods. He is suffering from Atopic dermatitis.

## Anaesthesia

1. Volatile anaesthetic agent of choice in children is Sevoflurane.
2. Best indication for propofol as an intravenous induction agent is day care surgery.
3. A patient undergoing caesarean section following prolonged labour under subarachnoid block developed carpopedal spasm. Lignocaine was used as an anaesthetic agent. Most likely diagnosis is Hypocalcemia.
4. 25 year old male with accident underwent debridement and reduction of fractured both bones of right forearm under axillary block. On 2<sup>nd</sup> postop day patient complained of persistent numbness and paresthesia in right forearm and hand. Commonest cause of this neurological dysfunction could be crush injury to hand and lacerated nerves, a tight cast or dressing and tourniquet pressure.
5. When a patient develops supraventricular tachycardia with hypotension under GA, treatments which could be given are carotid sinus massage, adenosine 3-12 mg IV and direct current cardioversion.

## Radiology

1. Investigation of choice for patient suspected of having vestibular schwannoma is Gadolinium enhanced MRI.
2. Radiological signs of scurvy includes pelican spur, zone of demarcation near epiphysis and frenkel's line.
3. On radiography widened duodenal C loop with irregular mucosal pattern on upper GI barium series is most likely due to Carcinoma head of pancreas.
4. Radiation tolerance of whole liver is 40 Gy.
5. In stomach malignancy postoperative radiotherapy is minimally used.
6. CT feature of acute pancreatitis includes ill-defined outline of pancreatic, enlargement of pancreas and poor contrast enhancement.
7. Classic appearance of an acute subdural hematoma is Crescent shaped hypodense lesion.
8. 1<sup>st</sup> investigation of choice in a patient with suspected subarachnoid haemorrhage should be Non contrast CT.
9. Radioisotopes are used in Mass spectroscopy, RIA and sequencing of nucleic acid.

## Psychiatry

1. Signs of organic brain damage are evident on Bender Gestalt test.