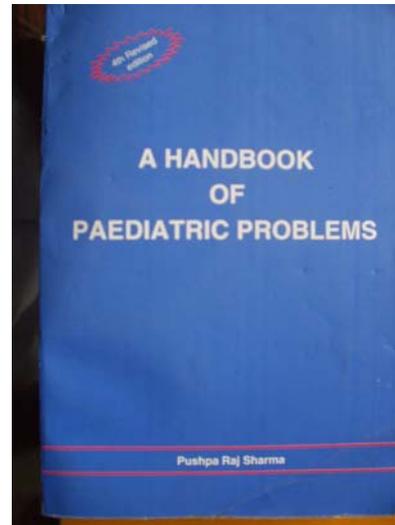


MBBS VIVA questions: A to Z.

**These questions are based on the book
Written by Prof. Dr. Pushpa Raj Sharma**



1. Growth and development:

- a. What happens in IUGR the ratio of OFC and Chest circumference?
OFC is 3 cm more than chest circumference.
- b. When is the peak growth velocity in adolescent girl?
Just before commencement of menarche
- c. What is the probable age of child who climbs with alternate steps but can not say his name and sex?
30 months.
- d. What is the probable age of a child who hold head at 90 degree?
12 weeks.
- e. A baby has unilateral moro with positive palmar grasp reflex where is the site of lesion?
C5-C6
- f. A child can walk down stairs with alternate steps holding on to the rail.
What is the probable age?
4 year.
- g. At what age the moro reflex disappears?
Approximately 12 weeks.
- h. Earliest hormonal change to occur in puberty?
Sleep augmented pulsatile secretion of pituitary gonadotrophin and growth hormone.
- i. What is short stature?
Below third percentile of less than 2 SD.

- j. what is the characteristic of hypothyroid short stature?
Asymmetrical dwarfism with delayed bone age.
- k. What is the characteristic of genetic short stature?
Gain in height is more than 4cm/yr. Bone age and body proportions are normal.
- l. What is psychosocial short stature?
Emotional deprivation. Symmetrical . Bone age normal or delayed.
- m. what are the causes of short stature?
Genetic short stature; chromosomal (down syndrome/turner syndrome); endocrinal (pituitary / hypothyroidism), nutritional (rickets/malnutrition); Chronic disease (chronic renal failure/congenital heart disease).
- n. At one year how many carpal bones are seen radiologically?
Two carpal bones

2. Nutritional

- a. Fatty liver, patchy depigmentation of hair and oedema is diagnosis of:
Kwashiorkor
- b. A child with alopecia, eczematous lesion over mouth and genitalia and hypogonadism is likely to have suffered from:
Zn deficiency.
- c. The characteristic three radiological feature of rickets is:
Cupping, fraying and widening of epiphysis.
- d. what is the calorie requirement for a severely malnourished child?
200 cal/kg/day and 10% of total calories should come from proteins of higher biological values.
- e. What are the percentage of calorie from diet in balance diet/
15% from protein; 50% from carbohydrate and 35% from fat.
- f. How breast feeding offers lower risk of infection?
Because of presence of secretory IgA; lysozyme; lactoferrin; low pH, bifidous factor and viable phagocytic macrophages.
- g. What are iron dependent enzymes?
Catalase and cytochrome C.

- h. Which vitamins are synthesized in the intestine?
vitK; Pantothenic acid; biotin.
- i. What is the chief protein of milk?
It is casein.
- i. Human milk contains which nutrients in greater amount than cow's milk?
Linoleic acid; oleic acid; more sugar (lactose)
- j. What are the characteristics of the stool of an exclusive breast fed baby?
Low pH; golden colour and acidic reaction.
- j. What are the characteristics of colostrums?
Deep yellow with alkaline reaction, 10-40 ml/day, high protein/VitA/Na and Cl, contains antibodies (IgA/IgG/IgM).
- k. what are the advantages of breast feeding in later life of the child?
Protection against obesity, demyelinating disease, atherosclerosis, and diabetes mellitus.
- l. What is marasmus?
Deficient of energy; body weight less than 60% of expected weight.
- m. What is the dose of vitamin A for measles?
2 lakh unit orally each day for 2 days.
- n. what are the important signs of hypervitaminosis A?
pseudotumour cerebri (papilloedema, raised fontanel, and cranial nerve palsy); hyperostosis and hypercalcaemia.
- o. What are the C/F of thiamine deficiency?
Dry beri beri (nervous system affected) wet beri beri (cardiovascular system affected) and infantile beri beri (infantile tremor).
- p. What are C/F of riboflavin deficiency?
Glossitis/ cheilosis/scaly dermatitis/keratitis.
- q. What are C/F of Niacin deficiency?
Diarrhoea/ dermatitis/dementia/red swollen tongue.
- r. What are C/F of pyridoxine deficiency?
Hyperirritability/ hyperacusis/ hypochromic anemia/ convulsion in infancy.
- s. What are C/F of vitamin C deficiency?

Pseudoparalysis/ subperiosteal he/ gingival hyperplasia/ scorbutic rosary/ follicular hyperkeratosis.

- t. What are C/F of vitamin D deficiency?
Craniotabes/ frontal bossing/ ricketic rosary/ Harrison groove/ delayed eruption of tooth/ pot belly/ widening of epiphysis of long bone.
- u. What percentage of children under 5 are stunted in Nepal?
It is more than 50% (54% based on 1998 Nepal Micronutrient Status Survey)
- v. At what age there is greatest risk of PEM?
6-18 months.
- w. How will you classify a child whose weight is 60-80% and oedema present?
Kwashiorkor.
- x. How will you classify a child whose weight is less than 60 and oedema present?
Marasmic Kwashiorkor.
- y. Tell three indication for admission of a malnourished child.
Weight deficit of less than 70% of weight for height or <60% for weight/
Hb < 5gms/ hypothermia/persistent diarrhoea/dehydration/sepsis.
- z. Tell three causes of death in malnutrition.
Hypothermia/hypoglycemia/dehydration and dyselectrolytemia.
- a. which fluid will you use to treat dehydration in malnutrition?
Resomal which contains low sodium and added zinc

3. Hematological disorders

- a. A child aged two years presents with anemia. Peripheral smear shows target cells and hypochromic/microcytic picture with Hb of 6gm. There is a positive family history. The next investigation of choice is:
Hb electrophoresis.
- b. Feature of Fetal RBC is:
Alkali denaturation resistance.
- c. As per WHO for infants less than 6 months, the Hb cut off level for anemia is:
11.5gm/L

- d. What percentage of children between 6-23 months suffer from anemia in Nepal?
20%
- e. What is the commonest cause of anemia in Nepal?
Nutritional anemia
- f. What is the dose of oral iron to treat iron deficiency?
6mg/kg of elemental iron.
- g. What are the three causes of hypochromic microcytic anemia?
Iron deficiency/ thalassaemia/ lead poisoning.
- h. What are three causes of normochromic anemia with low reticulocyte count?
Leukemia/chronic infection/pure RBC anemia.
- i. What further two test you will do for a child having normochromic anemia with high reticulocyte count?
Coombs test and hemoglobin electrophoresis.
- j. What is the most likely diagnosis of a child whose total count is 2,500/cmm, platelet 60,000/cmm, RBC:200,000/cmm and no lymphadenopathy and hepatosplenomegaly?
Aplastic anemia.
- k. What is the most likely diagnosis for a child with anemia, uremia, thrombocytopenia and raised FDP?
Hemolytic uremic syndrome.
- l. What two investigations is done for bleeding disorders?
Bleeding time and clotting time.
- m. What three tests are performed for vascular and platelet defects?
Platelet count/ Hess test/ bleeding time.
- n. What three tests are assessed for diagnosing coagulation defect?
APTT/PT/Thrombin time.
- o. Tell three clinical signs that differentiates platelet or vascular defects from coagulation defects?
Superficial and deep hemorrhages/ superficial bleeding arrested by pressure/ spontaneous bleeding are small and multiple.
- p. Tell five causes of purpura?

ITP/leukemia/HSP/aplastic anemia/drugs/SLE/sepsis.

- q. What is the desired rise of a coagulation factor required for the control of bleeding in a hemophilic child with single hemarthrosis?
30%.
- r. Tell three complications of transfusion reaction?
Febrile reaction/allergic reaction/circulatory over load/ Hemolysis.

4. Neonate:

- a. Full term small for date babies are at risk of:
Hypoglycemia.
- b. What are the three features seen in cold injury in neonate?
 - i. Bradycardia
 - ii. Metabolic acidosis
 - iii. Sclerema
- c. when you should not use bag and mask resuscitation?
 - i. Thick meconium aspiration
 - ii. Diaphragmatic hernia.
- d. What are the three characteristics of post term neonate?
Looks thin and old; vernix caseosa absent; nail protrudes beyond nail beds.
- e. What is perinatal period?
28 weeks of gestation to 7 days after birth.
- f. what is the normal anthropometric measurement of newborn?
weight: 2.5 Kg; OFC: 35 cms; length: 50 cms.
- g. What are the five observations made in APGAR scoring?
 - i. respiratory effort; ii: heart rate; iii: colour of the body, iv: muscle tone, v: reflex stimulation.
- h. Energy requirement for new born: 55 kcal/kg/day; at the end of first week:
110kcal/kg/day.
- i. A newborn has flaccid paralysis of right upper limb, pronated hand in the waiters position. Where is the lesion?
Erbs palsy at 5th and 6th cervical roots.
- j. A newborn has absent palmar grasp in the left hand , left pupil is small/irregular. Where is the lesion?

Klumpke's paralysis 8th cervical/1st thoracic and sympathetic plexus left side.

- k. What is the first step of neonatal resuscitation?
Dry and cover with towels/give oxygen by face mask and gentle oropharyngeal suction and peripheral stimulation.
- l. What will you do if there is no cry, but occasional gasp and heart rate is <100/min?
Insert oropharyngeal air way/ extend neck/ bag mask resuscitation.
- m. What laboratory tests will you order if the neonate has the jaundice within 24 hours of birth?
Coombs test/ blood group and Rh of mother and baby and serum bilirubin.
- n. What is the most likely diagnosis of jaundice in a neonate noticed after 24 hours, direct reacting bilirubin is not raised and haematocrit is high?
Polycythaemia.
- o. Tell three investigation you will perform in a neonate whose mother noticed jaundice on 20th day of life otherwise well?
Thyroid function/urine for reducing substances/SGOT.
- p. A newborn develops respiratory distress and is more tachypnoeic after positive pressure ventilation and has scaphoid abdomen, what is the most likely diagnosis?
Diaphragmatic hernia.
- q. A newborn is cyanosed and does not improve with 100 % oxygen, what is the most likely diagnosis?
Congenital cyanotic heart disease.
- r. What are two indications to stop exchange transfusion?
After calculated amount is exchanged and if signs of impending cardiac failure is seen.
- s. What are three complications of artificial ventilation in a neonate?
Tension pneumothorax/interstitial emphysema/intraventricular hemorrhage.
- t. Tell three characteristics of jitteriness that differentiates from convulsion?
Stimulus evoked/rapid oscillatory movement/movement ceases when limb held/conscious/no eye deviation.

- u. A new born develops melena on 96 hours of life. His platelet is normal but PT and PTT is prolonged. What is the most likely diagnosis?
Haemorrhagic disease of new born.
- v. Tell three problems that may be encountered in preterm?
Hyaline membrane disease/HIE/PDA/ anaemia/hypothermia.
- w. What are the causes of neonatal hypoglycemia?
Small for date/ prematurity/ infant of diabetic mother/ inborn errors of metabolism/endocrine deficiencies/ intrapartum asphyxia.
- x. What is the X-ray findings in necrotizing enterocolitis?
Intramural gas shadow in intestine.
- y. Tell three conditions for large for gestational age?
Diabetic mothers/beckwith syndrome/ transposition of great vessels/constitutional.

5. Gastrointestinal disorders:

- a. A child presented with white patches in the tongue and buccal mucosa which is not removable by spatula, what could be the cause?
Oral thrush.
- b. An infant presented with fever, difficulty in swallowing with drooling of saliva and is active and is irritable. Examination reveals two ulcers over the palatofaucial junction. what is the most likely cause?
Herpangina or herpetic gingivostomatitis.
- c. A five year old child presents with recurrent history of vomiting since birth. His birth weight is 3 kg and present weight is 5 kg. He is cheerful. What is the most likely diagnosis?
Gastrooesophageal reflux.
- d. A ten year old child presents with acute onset of vomiting of blood. He has marked splenomegaly. What is the most likely diagnosis?
Portal hypertension.
- e. A three weeks old male child presents with the history of recurrent projectile vomiting for two weeks with increasing severity. A mass, firm and round is palpable in epigastrium. What is the most likely diagnosis?
Congenital pyloric stenosis.
- f. What is the commonest cause of gastritis?
Helicobacter pylori.

- g. Tell three causative agent to produce acute diarrhoea in a child of 18 months?
Rota virus; enterotoxigenic e. coli; sheigella.
- h. What should be the osmolality of home fluid for rehydration?
Less than 300 mOsmol/l.
- i. Which fluids should not be given in diarrhoea?
Sweetened fruit drinks.
- j. Which fluid is preferred in severe dehydration?
Ringer lactate.
- k. Why Rringer lactate is preferred for severe dehydration? It contains Na/K/Cl and lactate.
- l. What happens to lactate of Ringer lactate after IV and why it is preferred?
Lactate is metabolized to bicarbonate, for the correction of base deficit acidosis.
- m. What are the four parameter on which dehydration is assessed?
General condition of the patient; sunken eyes; eager to drink and loss of skin turgor.
- n. What is the amount of ORS you advise to give to a mother whose 20 months kid has diarrhoea without dehydration after each loose stool?
50-100ml.
- o. What is the amount of ORS you advise for a child weighing 10 kg.?
750 ml.
- p. Which fluid you will use and why in a child with malnutrition having diarrhoea?
RESOMAL as it contains low sodium and extra nutrients like zinc.
- q. How much Ringer lactate you want to give IV to a 8 months child in the first hour?
30 ml/kg.
- r. What are the three complications of dehydration?
Convulsion, paralytic ileus, hypoglycemia.
- s. Tell three aetiological agents to cause dysentery?
Sheigella, salmonella, camphylobacter, enteroinvasive e.coli, entamoeba histolytica.

- t. What are the four key components in the treatment of dysentery?
Antimicrobials; fluids; feeding and follow-up.
- u. What are five risk factors for persistent diarrhoea?
Malnutrition, recent introduction of animal milk or formula, young age, immunological impairment, recent diarrhoea.
- v. What are the dreadful complications during rehydration therapy?
Pulmonary oedema and renal failure.
- w. A child with diarrhoea has serum sodium of 155 mmol/L. Which fluid will you use?
Preferably 5% dextrose with 25 meq/L of sodium as a combination of bicarbonate and chloride. If this is not available then half strength normal saline.
- x. A 18 months old child on formula feeding has persistent diarrhoea. His stool pH is less than 5.5 what will you do?
Stop the lactose in the diet.
- y. What is the autosomal recessive disorder that causes persistent steatorrhoea, retinitis pigmentosa, and areflexia?
A-B-lipoproteinaemia.
- z. Tell four medical causes that may mimic acute abdominal emergencies?
Ascaris obstruction; basal pneumonia; acute mesenteric adenitis; preicteric hepatitis, acute bacillary dysentery, HSP, severe constipation, urticaria, acute intermittent porphyria.
- aa. What are four extraintestinal causes of abdominal enlargement?
Hepatosplenomegaly, diverticulation of recti, hypotonia, Wilms tumour, hydronephrosis, distended bladder, pancreatic cyst and choledochal cyst.
- bb. What are the types of abdominal tuberculosis?
Ascitic, visceral, mesenteric and intestinal.
- cc. A 6 year old female child is suffering from nephritic syndrome complains of acute onset of abdominal pain. She has high fever and is delirious. What is the appropriate treatment?
Parenteral penicillin.
- dd. What are the two diseases of intestine where radiological studies are nearly diagnostic?

Chronic ulcerative colitis (lead pipe), cobblestone (regional ileitis), Hirschsprung (rat tail).

Respiratory disease:

- a. What is the ARI episodes per child per year in Nepal?
4-6 episodes.
- b. In which age group ARI causes highest mortality?
Less than one year.
- c. Tell four risk factors for ARI in children.
LBW; Domestic smoke pollution, malnutrition, no immunization, passive smoking,
- d. What is the best way to diagnose pneumonia in child with cough or difficulty in breathing?
Respiratory rate.
- e. What is the clinical bedside sign that differentiates obstructive airway disease from restrictive lung disease?
Presence of wheeze.
- f. In which disease the infant breathe more easily in the prone position?
Micrognathia, Pierre-Robin syndrome.
- g. What is the best treatment for acute nasopharyngitis?

Paracetamol and home care (cleaning the nose and safe home medicines for cough).
- h. What are the three upper respiratory common causes of recurrent cough in children?
Post nasal drip/ hypertrophied adenoids/allergic rhinitis.
- i. For how long you will treat acute tonsillitis with antibiotics?
Full ten days.
- j. What two acute emergency condition can be diagnosed with lateral cervical x-ray?
Acute epiglottitis and retropharyngeal abscess.
- k. What are four causes that can present with cervical lymphadenitis?
Superficial infection of drainage area/ tuberculosis/Hodgkin's disease/ infectious mononucleosis/ leukemia.

- l. What is glue ear?
It is the secretory otitis media due to the blockage of Eustachian tube causing vacuum in the middle ear cavity.
- m. What are the two long term complications of streptococcal pharyngitis?
Rheumatic fever and glomerulonephritis.
- n. A three year old child presents in ER with acute respiratory distress. Stridor is audible. What two investigations are done urgently?
Lateral cervical x-ray and total/differential count.
- o. A three year old child presents with acute onset of croup. The child is active feeding well but the croup worsens during exertion. What is the most likely diagnosis?
Acute spasmodic laryngitis.
- p. What are the three causes of croup?
Epiglottitis/ laryngotracheobronchitis/ foreign body.
- q. How does the IMCI classifies a child with cough or difficulty breathing?
Severe pneumonia or very severe disease/ pneumonia/ no pneumonia or cough and cold.
- r. Which three organisms cause persistent pneumonia?
Chlamydia; pneumocystis; tuberculosis.
- s. What are the complications of pneumonia?
Lung abscess; effusion; SIADH; cardiac failure; metastasis infection; acidosis.
- t. What are the four causes of persistent pneumonia?
Chlamydia; pneumocystitis; foreign body; asthma; tuberculosis; cardiac failure.
- u. Which is the most effective way to monitor the improvement in asthma during treatment?
Peak flow meter.
- v. A nine year old child with history of asthma again presents in the ER with respiratory distress. On auscultation there are no air entry both the lung fields. What are the most important steps in the treatment?
Oxygen; IV fluid; hydrocortisone IV; aminophylline; ABG.
- w. What are the four principles in the management of respiratory failure?
IV isoproterenol; mechanical ventilation; neuromuscular blockade; sedation morphine.

- x. What are the typical findings in X-Ray of a child with bronchiectasis?
Honeycomb appearance.
- y. What are the four causes of pleural effusion?
Tubercular; pyogenic; collagen disease; malignancy; cardiac failure;
nephritic syndrome; visceral larva migrans.
- z. A nine year old child diagnosed as a case of pneumonia suddenly presents with the history of respiratory distress for few hours. His chest examination reveals hyperresonance on the right side with reduced air entry. The chest x-ray shows deviation of the mediastinum on the left side. What is the immediate management?
A case of pneumothorax: water seal drainage.

Cardiovascular disease

- a. What is the commonest acquired heart disease in developing country?
Rheumatic heart disease.
- b. What are the three antenatal conditions that predispose to cardiac disease?
Maternal rubella; foetal alcohol syndrome; chromosomal anomalies.
- c. Which physiological process closes the foramen ovale after birth?
Left atrial pressure rises as pulmonary venous return increases.
- d. Which physiological process closes the ductus arteriosus?
The postnatal rise in arterial oxygen tension together with local changes in prostaglandin metabolism.
- e. What are the four respiratory conditions that mimic congenital heart disease?
Meconium aspiration; respiratory distress syndrome; pneumothorax.
- f. Which simple test differentiates cyanosis from cardiac or pulmonary disease?
Hypoxia test. Cyanosis due to pulmonary disease lessens with 100 percent oxygen whereas in cardiac it remains the same.
- g. What is the clinical sign that diagnoses the commonest congenital cardiac defect?
Systolic murmur in the left fourth intercostal space close to the sternum.
VSD.
- h. What are the typical signs of VSD in ECG?
High voltage R waves in V5 and V6.

- i. What is the typical three clinical sign of PDA?
Continuous murmur in the pulmonary area; collapsing pulse; chest indrawing; enlarged liver.
- j. What are the two typical clinical signs of ASD?
Heaving cardiac impulse just left to the sternum and fixed splitting of the second heart sound.
- k. What are the three typical findings in the ECG of ASD?
Right axis deviation and light bundle branch block pattern in V1 and V2.
- l. Tell four cardiac condition that can present as cyanosis in infancy?
TOF; TGA; Tricuspid atresia; total anomalous pulmonary venous drainage and single ventricle.
- m. What are the major and minor criteria to diagnose rheumatic heart disease?
Major are carditis; polyarthritis, chorea, erythema marginatum and subcutaneous nodule. Minor are fever; arthralgia, ECG changes and rise of acute phase reactants.
- n. What are the four clinical signs that is present mostly in Bacterial endocarditis?
Preexisting heart murmur; fever; pallor, palpable spleen.
- o. What condition you suspect in a child who has grossly enlarged heart without valvular disease?
Cardiomyopathy.
- p. What are the four clinical signs present mostly in pericardial effusion?
Raised JVP; distant heart sound, hepatomegaly and pulsus paradoxus.
- q. What are the four features of Tetralogy of Fallot?

VSD; Pulmonary stenosis; over riding of aorta and right ventricular hypertrophy.
- r. What are the three groups of clinical symptoms of arrhythmia?
Symptoms due to decreased cerebral blood flow; symptoms due to congestive heart failure and perceptions of rhythm disturbances.
- s. How will you treat sinus tachycardia?
Carotid sinus pressure.
- t. What are three important clinical signs of Paroxysmal supraventricular tachycardia?

Heart rate more than 200;; breathlessness, change in colour.

- u. Which two cardiac valvular disease where digoxin is contraindicated?
TOF and pulmonary stenosis.
- v. Tell three complications of cardiac disease?
Cardiac failure, thromboembolism and cerebral abscess.
- w. What are four common clinical signs of cardiac failure?
Respiratory distress; oedema; enlarged liver and basal crepitations.
- x. What is the reason to have hemiplegia in a child with cyanotic heart disease?
Polycythemia with increased viscosity and dehydration.
- y. What is the commonest cause of hypertension in children?
Glomerulonephritis
- z. What are five causes of hypertension in children?
Coarctation of aorta; renal artery stenosis, pheochromocytoma, steroid use, polycystic kidney. Pyelonephritis, neuroblastoma, Cushing's syndrome

Hepatobiliary disorders

- a. What are the four common symptoms of hepatobiliary disease?
Jaundice; ascites; oedema; upper abdominal pain.
- b. What are the condition in which there is unconjugated hyperbilirubinemia?
Hemolytic, jaundice of prematurity, Gilbert's disease, Crigler-Najjar syndrome; and pernicious anemia.
- c. What are the condition in which there is unconjugated hyperbilirubinemia?
Dubin Johnson's syndrome; biliary atresia; viral hepatitis; biliary obstruction; choledochal cyst.
- c. What are five infective causes of hepatosplenomegaly?
Typhoid, infectious mononucleosis; malaria; kala-azar; tuberculosis.
- d. What are the causes of only hepatomegaly?
Amoebic liver abscess; hydatid cyst; hemangioma; liver flukes, congestive cardiac failure; constrictive pericarditis.
- e. What are the causes of only splenomegaly?

- Portal hypertension, Felty syndrome; SBE; hemangioma, cyst, splenic trauma.
- f. What are the types of hepatitis that is transmitted by faecal oral route?
Hepatitis A; E.
 - g. What are the diagnostic test for the hepatitis B?
HBs Ag; Hbe Ag; anti HBc.
 - h. What chromosomal anomalies may be associated with biliary atresia?
Down' syndrome; trisomy 17 and 18.
 - i. What is your diagnosis in an 8 week young infant with jaundice noticed from 5th day of life and has pale stools but dark urine?
Biliary atresia.
 - j. Which type of hepatitis is associated with raised serum alphafetoprotein?
Idiopathic neonatal hepatitis.
 - k. An child has varicella infection one week back. At present he is irritable and has hypoglycemia and raised serum ammonium. What is the most likely diagnosis?
Reye's syndrome.
 - l. Name three storage disease that can cause cirrhosis?
Galactosaemia; Wilson's disease; glycogen storage disease.
 - m. How will you treat a child who has hepatocellular failure and is bleeding?
Vit K 5-10 mg IM and blood transfusion.
 - n. What are the four management principal in the treatment of hepatic coma?
Restricted protein; laxatives; neomycin; fluid restriction.
 - o. What is the most possible diagnosis in a child with hepatomegaly, abdominal pain, ascites and hepatic histology comprising sinusoidal distension?
Budd-Chiari syndrome.

Genitourinary disorders

- a. How will you confirm the UTI?
Isolating the organism and colony count should be more than 100,000/ml in a midstream or clean catch urine.
- b. What further three investigations are necessary in a child with repeated UTI?
USG of abdomen; voiding cystourethrography, and DMSA scan.

- c. How will you treat a nine year old child who presents in the ER with very high fever and rigor? The urine routine examination shows plenty of pus cells.
IV cefotaxime or ceftriaxone.
- d. What is the commonest cause of hematuria in children?
Acute poststreptococcal glomerulonephritis.
- e. What are the five important symptoms that identifies a child with glomerular disease?
Puffiness of face; oliguria, dark coloured urine; headache; convulsion.
- f. What are the indication for biopsy in glomerulonephritis?
Persistently low C3; oliguria for more than 3 weeks; persistent hypertension.
- g. What are the four diagnostic criteria for Nephrotic syndrome?
Proteinuria (more than 40mg/m²/hour), hypoalbuminemia, oedema, and hypercholesteremia.
- h. What is the drug and its dose that is mostly used in nephritic syndrome?
Prednisolone; 60mg/m²/day.
- i. How will you define relapse?
The recurrence of oedema with proteinuria.
- j. What do you mean by frequent relapse?
More than 3 relapse in one year.
- k. Enumerate four important complications of Nephrotic syndrome.
Pneumococcal peritonitis; coagulation abnormalities, renal failure and hyperlipidemia.
- l. How will you define acute renal failure?
Oliguria less than 300 ml/sq.m/day or urine output of less than 0.5ml/kg/hr for 12-24 hours.
- m. Enumerate three causes of pre renal acute renal failure?
Dehydration; haemorrhage, decreased cardiac output.
- n. Enumerate three causes of post renal acute renal failure?
Obstructive uropathy; posterior urethral valve; renal vein thrombosis.
- o. What is the commonest cause of nocturnal enuresis?
Inadequate bladder training.
- p. Which investigation will confirm the diagnosis of posterior urethral valve?
Micturating cystourethrogram

- q. What are the four important signs of polycystic disease of kidney?
Unilateral or bilateral flank mass; haematuria; hypertension and failure to thrive.
- r. How will you prevent renal scarring in a child with ureteric reflux?
Prophylactic antibiotics and surgical implantation.
- s. How long one should wait for undescended testis?
Up to the first year of life.
- t. What is the treatment for hydrocele in a neonate?
Observation for few months (one year).
- u. What is the common precipitating factor for vulvovaginitis in children?
Thread worm infestation.

Infectious disease:

- a. What is the infectivity period of chicken pox and measles?
Until 5 days after the onset of lesion and 14th day from the appearance of rash.
- b. What is the infectivity period of whooping cough?
21 days.
- c. Which diseases has the rash on the first day of fever?
Rubella; Chicken pox and meningococcal infection.
- d. In which disease the rash appears on the second or third day?
Scarlet fever and exanthema subitum.
- e. In which disease the rash appears and the fever subsides?
Exanthema subitum.
- f. A child is brought in the summer months with conjunctivitis, pertussis like syndrome and hematuria, what is the most likely diagnosis?
Adenoviral infection.
- g. What is the disease which causes dysentery and tender hepatomegaly?
Amoebiasis.
- h. Can a child who passes ova of ascariasis can have auto infection?
No, the ova must be in the soil for two weeks to become infective.
- i. Which two drugs are antagonistic in ascaris infestations?
Pyrental pamoate and piperazine.

- j. A child has diarrhoea and the stool report shows *Balantidium coli*, which drug you will use?
Tetracycline is the drug of choice and metronidazole is the alternate drug.
- k. Which two diseases can spread by milk which is not boiled?
Tuberculosis and Brucellosis.
- l. Which bacteria is related to GB syndrome that causes dysentery? What is the drug of choice?
Camphylobacter jejuni and erythromycin is the drug of choice.
- m. Tell three causes that can cause muco-cutaneous candidiasis?
Prolonged use of antibiotics; immunodeficiency and endocrinologic disease.
- m. A nine year old child presented with the recurrent history of fever, hoarseness, productive cough and cervical lymphadenopathy. His total count is normal and mantoux is negative. What is the most likely causative organism.
Mycoplasma pneumoniae infection
- n. An eight weeks infant presented with the findings of pneumonia without fever. Which is the most likely infective agent?
Chlamydia.
- o. A ten year old child had been in a marriage party in Tarai. After 12 hours he presented with the history suggestive of descending flaccid paralysis. What is the most likely diagnosis?
Botulism.
- p. A child is being treated with oral ampicillin for three weeks. He developed dysentery with abdominal pain from 20th day of ampicillin. What is the most likely diagnosis?
Clostridium fefficile.
- q. An six months old infant of a HIV positive mother presented with the history of watery diarrhoea for one month. He is not dehydrated but his weight is 4 kg. What is the most likely aetiological agent for this diarrhoea?
Cryptosporidiosis.
- r. What are the four important clinical findings of CMV infection in a neonate?
Microcephaly, hepatosplenomegaly, purpura, intracranial infections and chorioretinitis.
- s. What are the two non polio enteroviral infections?
Coxsackie and echoviruses.
- t. Which *E.coli* can cause dysentery?

- Enteroinvasive and enterohaemorrhagic.
- u. What type of diarrhoea is produced by giardia lamblia?
Osmotic diarrhoea.
 - v. How will you treat gonococcal neonatal ophthalmia neonatorum?
IV ceftriaxone.
 - w. How can you prevent the invasive hemophilus influenzae infections?
Hib immunization.
 - x. What is the chance of hepatitis B in a neonate who is born to a mother who is HBeAg positive?
90% of infection.
 - y. What is the commonest type of hepatitis that is prevalent in Nepal?
Hepatitis E (non A non B).
 - z. A nine months old child presented with the history of acute onset of high fever, excessive salivation, and irritability. He has ulcers involving the gum and mucous membrane of mouth. What is the most likely diagnosis?
Herpes simplex.
 - aa. How does the HIV infection spreads?
Sexual contact; contaminated needles; vertical transmission and blood products.
 - bb. Mention four AIDS indicator diseases.
Persistent candidiasis; persistent parotitis; persistent diarrhoea; persistent generalized lymphadenopathy and hepatosplenomegaly.
 - cc. Mention one retroviral drug for children.
3-azido-3-deoxythymidine.
 - dd. What can cause abdominal pain, positive occult blood and eosinophilia?
Hookworm infestation.
 - ee. What is the most possible diagnosis of a child who has fever, exudative pharyngitis, lymphadenopathy, hepatosplenomegaly and atypical lymphocytosis?
Infectious mononucleosis.
 - ff. What is the most serious complication of Kawasaki disease?
Coronary artery aneurysm.
 - gg. Which drug is contraindicated in Kawasaki disease?
Corticosteroids.

- hh. What type of fever is present in Kala-azar?
Double peak fever.
- ii. What are the four classification of Leprosy?
Tuberculoid; lepromatous; borderline; intermediate.
- jj. In which type of Leprosy the cell mediated immunity is intact?
Tuberculoid.
- kk. What are the four complications of *P. falciparum*?
Convulsion; renal failure; vascular collapse and black water fever.
- ll. How will you treat cerebral malaria?
Inj. Quinine hydrochloride: 20 mg salt/kg loading dose in 10ml/kg of 5% dextrose over four hours IV followed by 10mg salt/kg every eight hours.
- mm. Which is the commonest malarial parasite found in Nepal?
Plasmodium vivax.
- nn. Mention five complications of measles.
Otitis media, diarrhoea, xerophthalmia; encephalitis; SSPE.
- oo. When you will advise vaccination against measles?
Nine months and 15-18 months (MMR).
- oo. A five year old child presented in the ER with history of high fever, headache, convulsion and has purpuric spots. What is the most likely diagnosis?
Meningococcal meningitis.
- pp. Which drug will you use for the chemoprophylaxis?
Rifampicin.
- qq. What is the most common site for molluscum contagiosum in children?
Face.
- rr. Mention the gram negative organism that causes otitis media in children.
Moraxella catarrhalis.
- ss. What are the three complications of mumps?
Pancreatitis; orchitis and encephalitis.
- tt. What is the common aetiological agent for pneumonia in children older than five years?
Mycoplasma pneumoniae.
- uu. Which group of drug will you use for this?

- Macrolide.
- vv. A ten year old child presented with haemoptysis, chronic cough and very high eosiniphilia and the mantaux is negative?
Paragonimiasis.
- ww. Which viral infection can cause “slapped cheek” appearance?
Erythem infectiosum
- xx. Mention three vaccine preventable disease that can occur in a neonate?
Pertussis, tetanus and hepatitis B.
- yy. Which is the drug of choice for Pneumococcal infection?
Penicillin G
- zz. Mention one infection commonly seen in severely malnourished or immunocompromised child which can be treated with cotrimoxazole.
Penumocystis carini
- Aaa. Mention three causes of acute flaccid paraplegia.
Poliomyelitis; GB syndrome and transverse myelitis
- Bbb. What is the cause of death in poliomyelitis?
Respiratory paralysis.
- ccc. Which is national program that is supported by WHO for the eradication of Polio?
Plus polio program.
- Ddd. What is the incubation period of rabies?
One week to more than one year.
- Eee. Which drug is used in bronchiolitis which has reduced the mortality?
Ribavirin by aerosol.
- Fff. What is the commonest cause of winter diarrhoea in an infant?
Rota virus.
- Ggg. Mention four ophthalmologic features of congenital rubella.
Cataract; microphthalmia; glaucoma; chorioretinitis.
- Hhh. Mention three features of post natal rubella.
Erythematous maculopapular rash; generalized lymphadenopathy; fever on the same day of rash.
- iii. Mention three diseases caused by salmonella.

Gastroenteritis; enteric fever; osteomyelitis, abscess, meningitis.

Jjj. Mention two drugs used for scabies.

Lindane; permethrin, benzyl benzoate.

Kkk. What are the diagnostic criteria for toxic shock syndrome?

Fever of 38.9 degree C or higher; diffuse macular erythema; desquamation 1-2 weeks after illness particularly palm and soles; hypotension and involvement of three or more systems.

Lll. Mention two diseases that occurs after 2 weeks of infection with group A beta haemolytic infection.

Rheumatic fever and glomerulonephritis.

mmm. A child presented with sandpaper like rash, strawberry tongue, exudative pharyngitis and tender anterior cervical lymphnodes. What is the most likely diagnosis?

Scarlet fever.

Nnn. Mention three features of GAS toxic shock syndrome.

Hypotension, DIC, purpura and renal impairment.

Ooo. Which age group is vulnerable for GBS infection?

Neonate.

Ppp. Which parasitic disease causes high eosinophil count and migrating pruritic erythematous tracks?

Strongyloidiasis.

Qqq. Mention five signs of congenital syphilis.

Osteitis, hepatitis, lymphadenopathy, mucocutaneous lesion and anaemia.

Rrr. Which tape worm completes its life cycle in human and what is the drug of choice.

Hymenolopis nana; praziquantel.

Sss. How will you treat tinea?is?

Topical application of miconazole/clotrimazole/2.5% selenium sulphide/oral ketoconazole.

Ttt. A five year old child presents with perianal pruritus and there are no other symptoms. What is the most likely diagnosis and how will you treat this.

Thread worm infestation and pyrethral pamoate or albendazole.

Uuu. Which disease is spreads through cat/dog and causes high eosinophil count?

Toxicariasis.

Vvv. Mention five features of congenital toxoplasmosis.

Maculopapular rash, lymphadenopathy, hepatosplenomegaly, microcephaly, chorioretinitis, thrombocytopenia, convulsion.

www. What is the indication to use corticosteroids in tuberculosis?

tubercular meningitis and large pericardial or pleural effusions.

xxx. What is the indication to use acyclovir in chicken pox?

Older than 12 years, chronic cutaneous or pulmonary disorders, receiving steroids, salicylates and other immunosuppressive drugs.

Yyy. What is pseudoappendicitis syndrome?

Infection caused by yersinia enterocolitica with fever, pain in right iliac region and leucocytosis.

Neuromuscular Disease.

a. In a floppy child if the reflexes are brisk and plantar is up going where is the lesion?

Cortex.

b. In a floppy child there are no tendon reflexes but sensation is normal and is of normal intelligence where is the lesion?

Anterior horn cell.

c. Mention five metabolic causes of hypotonia.

Hypokalemia, hypothyroidism, rickets, hypercalcemia, renal acidosis and glycogenosis, lipoidosis.

d. Mention three causes of convulsion associated with skin lesions.

Neurofibromatosis, tuberous sclerosis, cysticercosis, sturge-weber syndrome.

e. What is the typical finding on EEG in petit mal?

3HZ spike and wave paroxysm seen made worse by hyperventilation.

f. What are the important clinical signs of brain stem lesion?

Crossed hemiplegia, ataxia and cranial nerve palsy at the level of lesion and difficulty with eye movements.

g. What are the clinical signs of corticospinal lesions?

Hyperactive stretch reflexes, increased tone, weakness usually greater than atrophy.

h. Mention three important features of febrile seizure.

Occurs between 6 months to 5 years, convulsion lasts for less than 15 minutes, no localizing neurological signs and LP is normal.

- i. What is the cause of fixed and dilated pupil?
Third nerve lesion.
- j. What decorticate posturing indicates?
It indicates bilateral hemisphere dysfunction with intact brainstem.
- k. What decerebrate posturing indicates?
It indicates bilateral damage to structures at the upper brain stem or deep hemisphere level.
- l. Mention three causes of coma with focal neurological signs but without raised intracranial pressure.
Tuberculoma, cysticercosis, vascular cause.
- m. Mention five signs of severely raised intracranial pressure.
Decerebrate posture, irregular respiration, tonic seizures, fixed dilated pupil, stridor and bounding pulse.
- n. Mention two drugs that are used to reduce the intracranial pressure.
IV mannitol and dexamethasone.
- o. When will you suspect a child having meningitis?
If the child has unexplained fever with convulsion and persisting headache.
- p. What is the commonest cause of death in acute bacterial meningitis?
Raised intracranial pressure.
- q. Mention five complications of meningitis.
Hydrocephalus, cranial nerve palsies, subdural effusion, SIADH, DIC, brain abscess.
- r. What are the four features of spinal cord dysfunction?
Sensory level, a level of motor dysfunction, no facial involvement and urinary dysfunction..
- s. Mention four causes of peripheral nerve disease.
Acute infective polyneuritis, diphtheria, botulism, peroneal muscular atrophy, and Friedreich' ataxia.
- t. What is the finding of CSF of a patient with GBS if done on second week.
Normal or slight increase cells with raised protein.
- u. What are the signs of myopathies?

- Gradual weakness, absence of paresthesias, bowel and bladder not affected, positive Gower's sign, no fasciculations.
- v. Mention muscular dystrophies with autosomal dominant inheritance.
Myotonia congenital, central core disease, fascioscapulohumoral dystrophy.
 - w. Mention three causes of cherry red spots.
Tay-Sachs, Neimann-Pick and Gm1-gangliosidosis.
 - x. What are the metabolic diseases associated with peripheral neuropathy?
Metachromatic leukodystrophy, Krabbe's disease and Neuroaxonal dystrophy.
 - y. Mention neuronal diseases with visceral enlargement.
Gaucher, Neimann-Pick, Hurler and glycogen disease.
 - z. Mention the spinal nerves for ankle and knee jerk.
S1 and L2,L3,L4 respectively.

Skeletal Disorders

- a. A three year old child is brought in the OPD because of short stature. His mental status is normal. His limbs are short but trunk is normal. His hand gives the appearance of trident. What is the most likely diagnosis?
Achondroplasia.
- b. A newborn is presented with multiple fractures. What genetic disease do you suspect and mention its inheritance?
Osteogenesis imperfecta, autosomal dominant.
- c. Mention two conditions associated with hemihypertrophy.
Mental retardation and neoplasia of kidney or adrenal.
- d. A child presents with hypermobility of joints from birth. What is the most likely diagnosis?
Ehlers-Danlos syndrome.
- e. A newborn presents with simple malformations with contractures and deformities of the joints, what is the most likely diagnosis?
Arthrogryposis multiplex congenita.
- f. Mention two organisms that commonly cause acute suppurative arthritis.
S.aureus and H.influenzae.
- g. Which part of bone is commonly involved first in osteomyelitis?
Metaphysis.

- h. Which investigation can confirm the osteomyelitis lesion in bone in 48 hours?
Triple phase technetium-99 diphosphate bone scan.
- i. How long will you give antibiotics in osteomyelitis?
Two to three weeks.
- j. Mention one clinical sign that differentiates TB hip joint from Perthe's disease.
In TB hip joint child complains first of pain at night then he limps. In Perthe's the child first limps and pain follows.
- k. Mention two signs of TB spine.
Kyphosis and pressure symptoms on the chord.
- l. A newborn presents with the symmetrical swelling of the arm, leg and elbow. He is pyrexial and does not move limbs. What is the most likely diagnosis?
Congenital syphilis.
- m. A four year old child presents with acute onset of limp. He had mild fever, cough and runny nose one week back. He complains of pain in groin that radiates to knee. What is the most likely diagnosis?
Transient monoarticular synovitis.
- n. How will you treat congenital dislocation of hip?
Keeping the hip joint in the position of flexion and abduction for 1-2 months by applying double of triple diapers.
- o. A two year old child is diagnosed as genu valgum without other problem. What advice you will give to parent?
It is spontaneously corrected by five years.

Endocrinal disorders

- a. A two month old infant is brought to you with history of prolonged jaundice, hoarse cry and umbilical hernia, which investigation you suggest?
TSH.
- b. What is the normal size of thyroid gland?
It should not be larger than the distal phynx of the individual thumb.
- c. A 12 year old male child has enlarged thyroid, which investigation you suggest?
T3/T4/TSH
- d. A three day old male child presented with recurrent vomiting. His scrotum is hyperpigmented and penis is unusually enlarged. What is the most likely diagnosis?

Adrenogential syndrome.

- e. A five year old child presents with polyuria and polydipsia. His urine examination is normal except the specific gravity of 1001. Which investigation should be done?
Water deprivation test.
- f. Which disease is seen in basophil tumour of the anterior lobe of pituitary?
Cushing's syndrome.
- g. A ten year old child presented in the ER with drowsiness. There is no history of diarrhoea or drug ingestion. On examination he is dehydrated and has Kussmaul breathing. Mention two investigation that you will do urgently.
Blood sugar and ketone in urine.

Immunological disorders

- a. Which eye complication is seen in juvenile rheumatoid arthritis?
Iridocyclitis.
- b. How will you confirm the diagnosis of SLE?
By finding the LE cells.
- c. What happens to ESR/CRP/Hb and Leucocyte count in JRA?
All will be raised except Hb.
- d. What is the most likely diagnosis of a child who is previously diagnosed as pulmonary haemosiderosis present with hematuria?
Goodpasture's syndrome.
- e. What are the immunological reaction in Urticaria?
Interaction of mast cells or basophil bound IgE antibody with antigen, complement system and the plasma kinin-coagulation scheme.
- f. What are the clinical signs of severe angiooedema?
Acute respiratory distress and collapse.
- g. Which is the commonest non-infectious hyperactive inflammatory disease of the skin in infancy?
Atopic dermatitis.
- h. What is the commonest skin lesion in atopic dermatitis?
Erythematous exudative lesions on forehead and cheeks.
- i. What is the treatment for atopic dermatitis?
Avoidance of soap/ detergents and application of topical steroids.

These will be updated regularly visit
the site