

## 6<sup>th</sup> Year Final Examination Questions - 2015

### MEDICINE

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#### Cases & Data Interpretation (50 Marks)

1. Pt with 2 yr hx of productive cough, came with SOB, O/E he had JVD, bilateral leg edema, bilateral expiratory wheeze. Lifelong hx of smoking. Spirometry showed an obstructive pattern with no reversibility.
  - a. What is the diagnosis? (COPD)
  - b. Mention lines of management.
2. A 25 yo female presented to the consultation room with hx of weakness, anorexia, nausea & infrequent vomiting a/w intermittent non-bloody diarrhea, she lost 10 kg of her body weight during the last 3 months and she had noticed that her skin becomes more darker than previous, O/E there is vitiligo, blood pressure 80/55 mmHg pulse rate 74 bpm of good volume
  - a. What is the most likely diagnosis? (Addison's disease)
  - b. What other bedside examination is of help? (measure BP in sitting & standing for postural HoTN)
  - c. Mention 3 necessary investigations? (Electrolytes, ACTH stimulation, plasma ACTH)
3. Young female developed altered level of consciousness 7 days after having jaundice, no drug use, and autoimmune markers negative.
  - a. What is the diagnosis? (hyper-acute fulminant hepatic failure)
  - b. Mention lines of management.
4. 30 yo Pt with generalized edema, echo normal, liver function & enzymes normal, 4gm/24 hour urinary protein, 4 plus protein on dipstick.
  - a. What investigation should you do next? (renal biopsy)
  - b. What are the complications of that investigation?
5. 77 yo Pt had MI a few days ago & was given thrombolytics, developed AF, he has HTN & COPD.
  - a. What is the best IV drug to give? (calcium channel blockers)
  - b. Why don't we do DC cardioversion? (risk of thromboembolism & showering)
6. Female Pt with long hx of Raynaud's phenomenon, now has thickening & limitation of movement at the fingers. There is skin thickening in the face, arm distal to elbow and in the leg distal to the knee.
  - a. What is the diagnosis? (limited cutaneous systemic sclerosis; CREST syndrome)
  - b. What are lines of management?
7. Young male with severe headache, fever, nausea and vomiting, neck stiffness & body spasm. He has signs of consolidation on right middle lobe of the lung.
  - a. What investigation to do? (CSF analysis, CT & MRI, CXR)
  - b. What are lines of management? (Mx of bacterial meningitis)
8. Adolescent male with 10d hx of fever, lymphadenopathy, pharyngitis, palatal petechiae, splenomegaly. Blood film showed atypical lymphocytes & Paul-Bunnell test was positive.
  - a. What is the diagnosis? (Infectious mononucleosis)
  - b. What are the lines of management?
9. 54 yo male with acute onset of chest pain, SOB & syncope. CXR & electrolytes were normal.
  - a. What are the differential diagnosis? (MI, AS, HCM, PE, ...)
  - b. Investigations needed to reach the diagnosis? (ECG, cardiac markers, CT & MR angio, echo...)
10. 42 yo Pt with hx of exceptional chest pain, exertional dyspnea, slow-rising pulse, systolic murmur.
  - a. What is the valvular lesion? (AS)
  - b. What is the cause in that age? (thick bicuspid valve)

## Essays (25 Marks)

1. Clinical features & management of lung abscess.
2. Short notes on IgA nephropathy
3. DM amyotrophy
4. Extra-intestinal manifestations of Inflammatory Bowel Disease
5. High risk for sudden cardiac death in HOCUM and how to prevent them

## MCQs (25 Marks)

### Practical

- (6 stations + 1 rest station: 6 minutes each)
- No slides, no history taking:
  1. GIT (examine a patient with ascites)
  2. Respiratory (auscultation of the back)
  3. Neuro (examine the 9<sup>th</sup> & 10<sup>th</sup> cranial nerves, CT: SAH & its management)
  4. Cardiovascular (auscultate precordium)
  5. Psychiatry (delirium, PTSD, personality disorders...etc)
  6. Data Interpretation (CBC: interpretation, DIC & its management)
  7. Rest

## SURGERY

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### Long Essay (20 Marks)

1. What are the causes of bleeding per rectum? Write the clinical presentation, classification and treatment of fistula in ano. What is Goodsall's rule?
2. A 25 years old, one missed period, pregnant lady presented to the outpatient clinic with severe right loin pain for the last 4 hours, the pain aggravated by cold exposures and relieved by hot application. There was nausea, tea color urine. She described previous recurrent pain improved by analgesia. On examination, she looks ill, pale, temperature was 39.9 C, pulse was 110 bpm. A tender mass of 25 x 18 cm felt at the right loin. WBC: 19000 cell/cm<sup>3</sup>. Urine was full of RBC and pus cells.
  - a. What is the most likely diagnosis? (pyonephrosis)
  - b. Give two other differentials.
  - c. What is the investigation of choice?
  - d. Outline your initial management.

### Short Essay (40 Marks)

- A. Treatment of anterior shoulder dislocation
- B. What is flap? Classification according to blood supply?
- C. Enumerate complications of V-P shunt
- D. Indications for resection of lung cancer.
- E. Empyema of gall bladder.
- F. Causes of hypothyroidism.
- G. Delivery of biopsy sample to the pathology lab.
- H.
  - a) Colostomy.
  - b) Differential diagnosis of groin mass in a 45 yo patient.

### MCQs (40 Marks)

## Practical

- (9 Stations + 1 rest, long case 40 minutes, short case 7 minutes each)
  1. Long case (history & examination of a patient with goiter)
  2. Slides & Radiology
  3. Surgical Instruments
  4. Oral (neurosurgery: clinical features of brain tumors, emergencies: management of shock)
  5. Cardiothoracic surgery (
  6. Urology (examination: hernia & undescended testes & hypospadias, slides: duplex kidney)
  7. Orthopedics (components & indications of external fixation)
  8. General surgery (examination: breast abscess, discuss management)
  9. General surgery 2 (questions only)

## PEDIATRICS

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### 6 Cases + 4 Data (50 Marks)

1. You are awoken by your 2 year old son complaining of noisy sound on inspiration and a barking cough. There is intercostal retractions and nasal flaring. He has been complaining of URTI symptoms for the past 2 days.
  - a. What is the most likely diagnosis? (CROUP)
  - b. Mention 2 lines of management? (racemic epinephrine, steroids)
2. A 10 yo boy referred from Kalar to the pediatrics teaching hospital for periorbital edema. Blood pressure 150/95, history of sore throat 3 weeks ago, on GUE RBC casts present.
  - a. What is the diagnosis?
  - b. What are the lines of management?
3. A Pt with fever, headache, nausea and vomiting, neck stiffness and positive Kernig sign, suspected to have bacterial meningitis, was admitted to ICU.
  - a. What is the most important step you do before everything else? (fundoscopy!)
  - b. What is the next step in management?
  - c. CSF culture yielded E coli, what is the duration of treatment?
  - d. What step should be taken before discharge?
4. 2 yo pt with fever and irritability, put on amoxicillin then he developed a generalized rash so they stopped amoxicillin. Hb 11.2, platelets 240000, WBC 12000. He has sore throat with tonsillar enlargement, red cracked lips, red palms, and conjunctival edema. He was put on IV antibiotics without response, investigations were repeated: Hb 11, platelets 720000, WBC still elevated.
  - a. What is the most likely diagnosis? (Kawasaki)
  - b. What is the most important investigation? (Echo)
  - c. What are the most important lines of management? (Aspirin, IVIG)
5. A previously healthy 3 yo girl develops petechiae and purpura. Physical exam is normal, PT 12, PTT 34, platelets 10000, bleeding time prolonged.
  - a. What is the diagnosis? (ITP)
  - b. Mention the lines of management? (Cs, IVIG, RhoGAM, Splenectomy > 5yo)
6. A preterm boy with Rh incompatibility, bilirubin 23, exchange transfusion done for him, he develops seizures.
  - a. Mention 3 causes for the seizure.
  - b. Mention 3 investigations.
  - c. Mention 3 lines of management.
7. A Pt with diarrhea, short stature, Hb 9 hypochromic microcytic anemia, elevated anti tissue transglutaminase.
  - a. What is the diagnosis? (Celiac disease)
  - b. What is the single most important investigation to confirm the diagnosis? (Small intestinal biopsy)
8. A Pt with gastroenteritis develops petechial and purpura. Investigations show Hb 7, platelets 20000, Urea 95, Creatinine 2.3, Reticulocyte count 6%.
  - a. What is the diagnosis? (HUS)
  - b. What are the lines of management?

9. A 4 yo child with early morning cyanosis, syncope, tachypnea, hyperpnea, vigorous crying is brought to you for assessment. The mother says that a cardiologist recommended doing a procedure for her when she was one year old to increase the pulmonary blood flow, but they couldn't do it due to poverty, she also has clubbing.
  - a. What is the diagnosis? (tet spells of TOF)
  - b. Mention 3 causes for this medical emergency.
  - c. Mention lines of management.
10. A newborn child with bilious vomiting has the following x-ray.
  - a. What do you see on the x ray? (double bubble sign)
  - b. What is this associated with? (duodenal atresia)
  - c. Mention the management?



**MCQs (40 Marks), EMQs (10 Marks)**

**Practical**

(8 stations + 1 rest, 5 minutes each)

1. Explain to the mother of a type 1 diabetic child how to use the insulin pen & needle injectors. Give advice about diet and exercise.
2. Take focused history from a mother of a 4 day old child with jaundice since the first day of life.
3. A 22 kg baby with severe dehydration: 1. How much fluid to give? 2. What type? 3. How to treat hyperkalemia?
4. Comment on the developmental age of this baby shown on video.
5. Slides:
  - a. X-ray (diaphragmatic hernia & its treatment)
  - b. ECG (comment on the ECG, diagnosis? Wolff-Parkinson-White syndrome, mention one drug)
  - c. Child with rash & short history (diagnosis? Scarlet fever, mention one antibiotic)
6. Vital signs & investigations of a child with heart failure, discuss diagnosis & further management
7. A child with fever, headache, vomiting, diarrhea, suspected of meningitis, do proper examination & discuss management.
8. Investigations of a child with leukemia, discuss diagnosis, treatment and prognosis.

## **OBSTETRICS & GYNECOLOGY**

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### **Essay (60 Marks), T&F (15 Marks), MCQs (25 Marks)**

1. Anxious mother of an 18 yo girl has brought her daughter to the hospital because she has never had a menstrual cycle. She is worried because her sister had her first menstruation at the age of 16. How do you investigate this girl and how do you manage her?
2. What are the maternal and fetal complications of diabetes? Pre-pregnancy counseling in diabetes?
3. A) Degrees of perineal tears and their management.  
B) Management of apparently benign ovarian tumor according to age.
4. A pregnant woman has a baby with IUGR, how do you assess the well-being of her fetus?
5. A) Treatment of iron deficiency anemia orally.  
B) Compare between copper intrauterine device and Mirena.

### **Practical (8 stations, 5 minutes each)**

1. Emergency 1 (Pt with ruptured ectopic, what is the diagnosis? discuss the investigations & management?)
2. Emergency 2 (Pt with eclamptic fit, what is the diagnosis, discuss the investigations & management?)
3. History (take brief Hx from this Pt, discuss Dx & Tx, e.g. patient with antepartum hemorrhage)
4. Examination (do obstetric examination on this Pt)
5. Maneuver (Pt with cord prolapse on the mannequin, definition, diagnosis and management?)
6. Instruments & drugs (identify + 1 or 2 questions about each e.g. indication & contraindication)
7. Slides (identify the slides + 1 or 2 questions about each)
8. Partogram (read and interpret a pre-filled partogram)