Year 3 Revision Lecture

Daryl Cheng & Jasmine Koh
Exam Format

- FORMATIVE...not the end of the world
- 80 EMQs, NO SAQs or essays
- Progress check for EOY exams
Topics

• Medicine

• Surgery

• Pathology

• EBCP
Medicine Topics

- Haem-Onc
- MSK
- Renal
- GIT
- Pharm
- ID
- Cardio
- Endo
- Neuro
- Resp
How to Study?

1. Clinical Rotations – see patients
   - Integrate with OSCE preparation
2. PBL Cases/Seminars
3. Notes, Tips, Tricks, Hints
4. Reference Books
5. EMQ Practice Books
Practice Resources

- EMQs for Medical Students – Vol 1-3
- AMCQ Books and Questions
- MUMUS Past Exam Papers
http://mednoteshare.blogspot.com

We've added a whole lot of new files, downloads and features.

Be sure to check this one out especially - the Clinical Skills Handbook - written by meddies for meddies!

MedNoteShare, J Koh & D Cheng
1. For the following clinical scenario, select the MOST LIKELY cause of the patient’s splenomegaly that was found on examination.

- **Options:**
  - A. Acute lymphocytic leukaemia
  - B. Acute myeloid leukaemia
  - C. Amyloidosis
  - D. Chronic lymphocytic leukaemia
  - E. Chronic myeloid leukaemia
  - F. Gaucher’s disease
  - G. Infectious mononucleosis
  - H. Infective endocarditis
  - I. Hodgkin’s lymphoma
  - J. Malaria
  - K. Myelofibrosis
  - L. Non-Hodgkin’s lymphoma
  - M. Portal hypertension
  - N. Thalassaemia
  - O. Tuberculosis

A 21 year woman presents with a 3 week history of increasing tiredness associated with a sore throat and tender cervical lymph nodes. Atypical mononuclear cells were found in a peripheral blood sample, and she developed a fine rash after being given amoxycillin for her sore throat. Her spleen is palpable 1cm below the costal margin and is soft.
1. For the following clinical scenario, select the MOST LIKELY cause of the patient’s splenomegaly that was found on examination.

- **Options:**
  A. Acute lymphocytic leukaemia  
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  D. Chronic lymphocytic leukaemia  
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  F. Gaucher’s disease  
  G. **Infectious mononucleosis**  
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  O. Tuberculosis

**HAEM/ONC**

A 21 year woman presents with a 3 week history of increasing tiredness associated with a sore throat and tender cervical lymph nodes. Atypical mononuclear cells were found in a peripheral blood sample, and she developed a fine rash after being given amoxycillin for her sore throat. Her spleen is palpable 1cm below the costal margin and is soft.
2. For the following scenario, select the MOST LIKELY causative condition.

Options:
A. Acropathy
B. Hypertrophic pulmonary osteoarthropathy
C. Osteoarthritis
D. Osteomalacia
E. Osteopetrosis
F. Osteoporosis
G. Paget’s Disease
H. Psoriatic arthropathy
I. Rickets

Mary is an 81 year old woman, who has been generally well and living on her own. She had a fall after tripping over her small dog. She is unable to stand up and on examining her, you note that her right leg is shorter than her left by 2 cm, and is in external rotation.
2. For the following scenario, select the MOST LIKELY causative condition.

Options:
A. Acropathy
B. Hypertrophic pulmonary osteoarthropathy
C. Osteoarthritis
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MSK
Mary is an 81 year old woman, who has been generally well and living on her own. She had a fall after tripping over her small dog. She is unable to stand up and on examining her, you note that her right leg is shorter than her left by 2 cm, and is in external rotation.
3. For the following patient who presents with a skin lesion, select the MOST LIKELY diagnosis.

Options:
A. Basal cell carcinoma
B. Glomus tumour
C. Implantation dermoid cyst
D. Keratoacanthoma
E. Marjolin’s ulcer
F. Paronychia
G. Pilonidal sinu
H. Sebaceous cyst
I. Sequestration dermoid cyst
J. Squamous cell carcinoma

Bob Brown, aged 91, presents to you with a lesion on one side of his nose. The lesion has an overlying scab. The patient says he has had the lesion for many years and it occasionally bleeds. On examination you note a 2 x 3cm ulcer with raised edges. The edges appear white, however they have overlying telangiectasia.
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4. For the following patient scenario, indicate the MOST LIKELY diagnosis.

Options:
A. Acute interstitial nephritis
B. Acute tubular necrosis
C. Adult polycystic kidney disease
D. Analgesic nephropathy
E. Crystal nephropathy
F. Hepatorenal syndrome
G. Nephrotic Syndrome
H. Reflux nephropathy
I. Renal tubular acidosis

A 25 year old meat-packer from Gippsland has been sent home by his supervisor due to swelling of his legs and tiredness. He is passing dark, frothy urine. On examination, there is oedema of his legs and genitalia. He has severe proteinuria (urinary albumin 6g/day) and the serum albumin is 27g/L (35 - 50g/L).
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RENAL
A 25 year old meat-packer from Gippsland has been sent home by his supervisor due to swelling of his legs and tiredness. He is passing dark, frothy urine. On examination, there is oedema of his legs and genitalia. He has severe proteinuria (urinary albumin 6g/day) and the serum albumin is 27g/L (35 - 50g/L).
5. A 58 year old previously well man presents to a large metropolitan hospital with shortness of breath and sharp, substernal chest pain that is relieved by sitting forward. Apart from tachycardia, his physical examination reveals a “rub” on auscultation. An electrocardiogram (ECG) shows concave upwards ST elevation in anterior, lateral and inferior chest leads.
For each of the following patients who present with abdominal pain, select the single most appropriate INITIAL imaging investigation required.

- **Options:**
  - A. Abdominal x-ray
  - B. Carotid Doppler ultrasound
  - C. Carotid arteriogram
  - D. Chest x-ray
  - E. Coronary arteriogram
  - F. CT abdomen
  - G. CT brain
  - H. CT chest
  - I. CT neck
  - J. CT pulmonary angiogram
  - K. Doppler venous ultrasound
  - L. Echocardiogram
  - M. MRI brain
  - N. MRI chest
  - O. MRI spine
  - P. Nuclear bone scan
  - Q. Pulmonary arteriogram
  - R. Thallium cardiac scan
  - S. Thyroid nuclear scan
  - T. Ultrasound abdomen
  - U. Ultrasound neck
  - V. Ventilation perfusion (VQ) nuclear scan
  - W. X-ray skeletal survey

5. A 58 year old previously well man presents to a large metropolitan hospital with shortness of breath and sharp, substernal chest pain that is relieved by sitting forward. Apart from tachycardia, his physical examination reveals a “rub” on auscultation. An electrocardiogram (ECG) shows concave upwards ST elevation in anterior, lateral and inferior chest leads.
For each of the following patient scenarios, select the MOST APPROPRIATE pharmacological treatment.

- Options:
  - A. Clopidogrel
  - B. DDAVP
  - C. Dipyridamibe
  - D. Factor VIII
  - E. Factor IX
  - F. Heparin
  - G. Low molecular weight heparin
  - H. Tissue plasminogen activator
  - I. Warfarin

7. A 45 year old man presents to the Emergency Department of a rural hospital with acute onset of crushing central chest pain, radiating down his left arm. An ECG reveals ST elevation in the anterior chest leads.
PHARM

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  - B. DDAVP
  - C. Dipyridamidine
  - D. Factor VIII
  - E. Factor IX
  - F. Heparin
  - G. Low molecular weight heparin
  - H. Tissue plasminogen activator
  - I. Warfarin
9. For the following patient scenario, select the MOST APPROPRIATE organism.

Options:
A. Aspergillus
B. Candida
C. Cytomegalovirus
D. Herpes simplex
E. Mucormycosis
F. Mycobacterium avium intracellulare
G. Mycobacterium tuberculosis
H. Norcardia
I. Staphylococcus spp
J. Streptococcus spp

A 53 year old thin, homeless man presents to his community health service with a persistent cough and haemoptysis. A chest x-ray shows a cavitating lesion in the left lung apex.
9. For the following patient scenario, select the MOST APPROPRIATE organism.

Options:
A. Aspergillus
B. Candida
C. Cytomegalovirus
D. Herpes simplex
E. Mucormycosis
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ID
A 53 year old thin, homeless man presents to his community health service with a persistent cough and haemoptysis. A chest x-ray shows a cavitating lesion in the left lung apex.
11. Below is a pathology report. From the options listed, select the MOST LIKELY diagnosis.

Options:
A. Anal fissure
B. Colorectal cancer
C. Crohn’s disease
D. Diverticulosis
E. Haemorrhoids
F. Infective diarrhoea
G. Peptic ulcer disease
H. Ulcerative colitis

Pathology Report:
The lesion in the resected bowel demonstrated cobble stone appearance with the presence of fistulae and micro abscesses microscopically, transmural granulomas are seen with Langhan’s giant cells.
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PATH
Pathology Report:
The lesion in the resected bowel demonstrated cobble stone appearance with the presence of fistulae and micro abscesses microscopically, transmural granulomas are seen with Langhan’s giant cells.
13. For the following patient who presents with involuntary movement, select the MOST LIKELY diagnosis.

- **Options:**
  - A. Asterixis
  - B. Athetosis
  - C. Cerebellar tremor
  - D. Chorea
  - E. Dystonia
  - F. Essential tremor
  - G. Exaggerated physiological tremor
  - H. Multiple sclerosis
  - I. Parkinson’s disease
  - J. Wilson’s disease

Jenny is a 37 year old woman who presents with an intention tremor, diplopia and urinary incontinence.
13. For the following patient who presents with involuntary movement, select the MOST LIKELY diagnosis.

**Options:**
A. Asterixis  
B. Athetosis  
C. Cerebellar tremor  
D. Chorea  
E. Dystonia  
F. Essential tremor  
G. Exaggerated physiological tremor  
H. Multiple sclerosis  
I. Parkinson’s disease  
J. Wilson’s disease

**NEURO**

Jenny is a 37 year old woman who presents with an intention tremor, diplopia and urinary incontinence.
Options:
A. Meckel’s Diverticulum
B. Acute pancreatitis
C. Gastritis
D. Anal Fissure
E. Incarcerated inguinal hernia
F. Carcinoma Bowel
G. Gastric Ulcer
H. Perforated duodenal ulcer

I. Ruptured abdominal aortic aneurysm
J. Sigmoid diverticulitis
K. Oesophageal varices
L. Mallory-Weiss tear

14. A 74 year old alcoholic woman presents following a large bright fresh haematemesis. On examination her abdomen is grossly distended with ascites and she has a caput medusa. She has multiple purpura and spider naevi.
Options:
A. Meckel’s Diverticulum
B. Acute pancreatitis
C. Gastritis
D. Anal Fissure
E. Incarcerated inguinal hernia
F. Carcinoma Bowel
G. Gastric Ulcer
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GASTRO
14. A 74 year old alcoholic woman presents following a large bright fresh haematemesis. On examination her abdomen is grossly distended with ascites and she has a caput medusa. She has multiple purpura and spider naevi.
Options:
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B. Acute pancreatitis
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D. Anal Fissure
E. Incarcerated inguinal hernia
F. Carcinoma Bowel
G. Gastric Ulcer
H. Perforated duodenal ulcer
I. Ruptured abdominal aortic aneurysm
J. Sigmoid diverticulitis
K. Oesophageal varices
L. Mallory-Weiss tear

15. A 21 year old man presents with bright PR bleeding. He notices the blood streaking his stool, on the paper and in the toilet bowl. He has considerable pain on defecation, and he reports that his anus is exquisitely tender. He has noticed no change in his weight and no change in his bowel habit.
**Options:**

A. Meckel’s Diverticulum
B. Acute pancreatitis
C. Gastritis

**D. Anal Fissure**

E. Incarcerated inguinal hernia
F. Carcinoma Bowel
G. Gastric Ulcer
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I. Ruptured abdominal aortic aneurysm
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**GASTRO**

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For each of the following scenarios, which option, from the list provided, is the MOST LIKELY cause of the chest examination findings?

• Options:
  A. Bronchiectasis
  B. Lung consolidation
  C. Pleural effusion
  D. Pneumothorax
  E. Pulmonary fibrosis

16. A 20 year old man with a history of cystic fibrosis presents with a history of productive yellow sputum and recurrent episodes of fever and tiredness. On examination you note finger clubbing, and coarse crackles over the bases of both lungs.
For each of the following scenarios, which option, from the list provided, is the MOST LIKELY cause of the chest examination findings?

- Options:
  A. Bronchiectasis
  B. Lung consolidation
  C. Pleural effusion
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**RESPI**

16. A 20 year old man with a history of cystic fibrosis presents with a history of productive yellow sputum and recurrent episodes of fever and tiredness. On examination you note finger clubbing, and coarse crackles over the bases of both lungs.
Lydia is a 35 year old previously healthy non-smoker. She presents with progressive exertional dyspnoea, fatigue and chest pain. On examination P2 is accentuated and a left parasternal heave is present. You organise a chest x-ray which shows normal lung fields with dilated pulmonary arteries.
17. For the following patient scenario, select the MOST LIKELY single cause of her signs and symptoms.

- **Options:**
  A. Acute epiglottitis
  B. Air embolism
  C. Aspiration pneumonitis
  D. Atelectasis
  E. Bronchial asthma
  F. Carcinoma of the lung
  G. Cardiac arrhythmia
  H. Congestive cardiac failure
  I. Cor pulmonale
  J. Pneumonia
  K. Pneumothorax
  L. **Primary pulmonary hypertension**

**CVS**
Lydia is a 35 year old previously healthy non-smoker. She presents with progressive exertional dyspnoea, fatigue and chest pain. On examination P2 is accentuated and a left parasternal heave is present. You organise a chest x-ray which shows normal lung fields with dilated pulmonary arteries.
18. Answer the question below using the MOST APPROPRIATE term from the list of options.

Options:
- A. Absolute risk reduction
- B. Attrition bias
- C. Blinding
- D. Concealment of allocation
- E. Confidence interval
- F. Detection bias
- G. Intention to treat
- H. Masking
- I. Number needed to treat
- J. Performance bias
- K. Precision
- L. P-value
- M. Random error
- N. Randomisation
- O. Relative risk
- P. Relative risk reduction
- Q. Selection bias
- R. Validity

You are reading through the results of a study and are drawn to type of analysis performed. Upon inspection you realise that participants were compared in groups to which they were randomised. What name is given to this type of analysis?
18. Answer the question below using the MOST APPROPRIATE term from the list of options.

Options:
- A. Absolute risk reduction
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- D. Concealment of allocation
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- R. Validity

EBCP
You are reading through the results of a study and are drawn to type of analysis performed. Upon inspection you realise that participants were compared in groups to which they were randomised. What name is given to this type of analysis?
Options:

- A. Hypercalcaemia
- B. Hypocalcaemia
- C. Hyperchloraemia
- D. Hypochloraemia
- E. Hyperkalaemia
- F. Hypokalaemia
- G. Hypomagnesaemia
- H. Hypernatraemia
- I. Hyponatraemia

23. A 45 year old man with end stage renal failure secondary to glomerulonephritis has a radionuclide scan, which shows four enlarged parathyroid glands.

He is diagnosed with “tertiary hyperparathyroidism”.
Options:

- A. Hypercalcaemia
- B. Hypocalcaemia
- C. Hyperchloraemia
- D. Hypochloraemia
- E. Hyperkalaemia
- F. Hypokalaemia
- G. Hypomagnesaemia
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ENDO

23. A 45 year old man with end stage renal failure secondary to glomerulonephritis has a radionuclide scan, which shows four enlarged parathyroid glands.

He is diagnosed with “tertiary hyperparathyroidism”.
24. For the following patient scenario, select the MOST LIKELY diagnosis.

- Options:
  - A. De Quervain’s thyroiditis
  - B. Follicular adenoma
  - C. Graves’ disease
  - D. Hashimoto’s thyroiditis
  - E. Multinodular goitre
  - F. Primary hypothyroidism
  - G. Riedel’s thyroiditis
  - H. Secondary hyperthyroidism
  - I. Simple goitre
  - J. Thyroid carcinoma

A 37 year old mother of three and a part time pilates instructor presents with a six month history of menorrhagia and tiredness. Investigations show:

- FBE
  - Hb 110 g/L (115 – 160g/L)
  - WCC 7.1 x 10^9/L (4.0 – 11.0 x 10^9/L)
  - Plts 225 x 10^9 (150 – 400 x 10^9)
- LFT, U+E+C, BSL – within normal limits
- TFT
  - TSH 22.6 (0.5 – 5.6 mU/L)
  - T4 31 (70 – 140nmol/L)
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  - A. De Quervain’s thyroiditis
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- **FBE**
  - Hb 110 g/L (115 – 160g/L)
  - WCC 7.1 x 10⁹/L (4.0 – 11.0 x 10⁹/L)
  - Plts 225 x 10⁹ (150 – 400 x 10⁹)
- **LFT, U+E+C, BSL – within normal limits**
- **TFT**
  - TSH 22.6 (0.5 – 5.6 mU/L)
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