e-Film Reading Examination – March 2018

Question 1	
History	59 year old female with two year history of knee swelling.
Imaging	A MRI was performed on 14 December 2015.
Findings	**Major Findings:** • Frond-like synovial proliferation • High T1 and PD, • Suppresses on FS, no blooming on GE • Complex synovial cysts • Large joint effusion • Horizontal tear medial meniscus • Horizontal tear lateral meniscus (+/- free edge) **Minor Findings** • Grade 2 cartilage medial patellar facet • Grade 2 cartilage medial tib/fem • ACL,PCL intact • MCL, LCL, extensor intact
Likely Diagnosis	Lipoma arborescens
Differential	N/A
Further Investigation or Management	N/A

Question 2	
History	A 56-year-old male presents with 2-week history of abdominal pain and fever.
Imaging	A CT scan was performed on 13 November 2015
Findings	**Major Findings:** • Inflammatory infiltrate in sigmoid mesenteric fat • Multiple sigmoid diverticula • Small paracolic abscess adherent to bladder • Gas within bladder • Diffuse hepatic steatosis
Likely Diagnosis	Acute sigmoid diverticulitis with paracolic abscess and colovesical fistula
Differential	No major differential
Further Investigation or Management	Not required

Question 3	
History	A 28-year female, G2P1 presents for morphology scan. No first trimester screening.
Imaging	A morphology US was performed 14 March 2013.
Findings	**Major Findings:** • Intracranial abnormality / big extra-axial spaces • Thickened nuchal fold • Abnormal profile • Bilateral cleft lip and palate • Polydactyly • IUGR **Minor Findings:** • Echogenic intracardiac focus • Atrial septal defect • Placenta posterior and not low lying • Liquor normal
Likely Diagnosis	Trisomy 13
Differential	Other trisomy / T18 Chromosomal abnormality (not Trisomy 21)
Further Investigation or Management	Karyotyping via amniocentesis Obstetric or MFM referral

Question 4	
History	A 27 year old male presents with chronic post prandial pain.
Imaging	A CT scan was performed on 7 October 2014.
Findings	**Major Findings:** • Focal narrowing of coeliac trunk • Post stenotic dilatation • Upward hooking coeliac trunk • Other vessels normal • No other soft tissues abnormality (e.g. pancreas normal, bowel normal)
Likely Diagnosis	Median arcuate ligament syndrome (coeliac axis syndrome is an acceptable alternative term)
Differential	Segmental arterial mediolysis (unlikely – due to age) Vasculitis (rare – but odd reported cases)
Further Investigation or Management	Refer surgery

Question 5	
History	A 5 month old boy presents to Emergency with a five day history of cough and wheeze, clinically bronchiolitis. He was born at 34 weeks gestation, and had an uncomplicated subsequent neonatal course. He had one previous admission at age 2 months with bronchiolitis
Imaging	A supine and lateral chest X-ray were performed in ED 04/12/2005. A Contrast CT was performed 2 days later 06/12/2005
Findings	**Point of Case** The imaging features are classic. The candidate should be able to recognize there is a mass causing left main bronchus obstruction and secondary air trapping in the left lung. The position near the carina and water density are typical for a bronchogenic cyst. Not enhancing so NOT lymphadenopathy. No vertebral abnormality to suggest a neuroenteric cyst. **Chest X-ray** Major Findings: • Hyperlucent left lung • Over-expanded left lung displacing mediastinum to the right (displaced azygo-esophageal line in the posterior mediastinum) • No radio-opaque foreign body **Chest CT** Major Findings: • Low density/cystic (HU= water) • Well defined margin • Posterior pericarinal mass (bridges superior/middle/posterior mediastinum) • Mass compresses and displaces distal trachea obstructs left main bronchus Minor Findings (0.5 mark each): • No vascular abnormality (ring or sling) • No vertebral abnormality • Dilated air filled esophagus + distended stomach is iatrogenic (laryngeal mask)
Likely Diagnosis	Bronchogenic Cyst Note: If candidate diagnoses Bronchopulmonary foregut malformation and don't mention bronchogenic cyst score 1
Differential	Neuro-enteric cyst Oesophageal duplication cyst
Further Investigation or Management	N/A

Question 6	
History	A 31-year-old female presented with dizziness, double-vision and loss of balance with a long standing history of shortness of breath and recent cyanosis.
Imaging	A Brain MRI was performed on 02 December 2013 A CTA Chest was performed on 05 December 2013
Findings	**MRI Brain** **Major Findings**: • High signal lesion in Left cerebellar vermis with smaller scattered T-2 high signal foci in left cerebellar hemisphere which show diffusion restriction • Occluded left superior cerebellar artery on MRA **CTA Chest** **Major Findings**: • Cardiomegaly with enlarged right atrium and right ventricle • Large atrial septal defect • Enlarged pulmonary trunk and pulmonary arteries **Minor Findings**: • Subsegmental atelectasis in right middle lobe and lingula. Lungs otherwise clear.
Likely Diagnosis	**Likely Diagnosis**: Large ASD with pulmonary hypertension due to Eisenmenger phenomenon with paradoxical embolism causing acute left cerebellar vermian infarct. (Candidate must mention “paradoxical embolism” to gain maximum marks)
Differential	There is no differential
Further Investigation or Management	Urgent Neurological and Cardiological review including Echocardiography.

Question 7	
History	A 46 year old male with a long standing history of right cheek numbness, presents with severe acute onset headache with left side ptosis, visual disturbance – CT brain was reported as normal
Imaging	A MRI Brain was performed on the 16 November 2016
Findings	**Findings:** **Lesion 1** • Pituitary mass: mixed T2 & T1 signal • Suprasellar extension • Optic chiasm elevation/compression • Extends into left cavernous sinus • No contrast enhancement • DWI: pituitary restriction **Lesion 2** • Right pterygomaxillary fissure lesion • Scalloping, low T1, Hi T2, Mild CE • FLAIR: Left chiasm and optic tract reaction • SWI: no abnormal brain susceptibility, subarachnoid hemorrhage etc • MRA: no aneurysm • No hydrocephalus • Flow voids in veins
Likely Diagnosis	1. Pituitary hemorrhage with clinical apoplexy - underlying macroadenoma 2. V2 nerve sheath tumor
Differential	Pituitary lesion: Aneurysm, haem RCC
Further Investigation or Management	Discuss with attending clinical team, Follow-up imaging

Question 8	
History	A 31 year old female presents with right sided tinnitus.
Imaging	MRI was performed on 13 August 2012.
Findings	The candidate should pass the case if there is a reasonable description leading to the diagnosis of epidermoid. **Major Findings:** • Lesion in right cerebellopontine angle (10mm) • Posterior, and adjacent to opening of IAM, does not extend into the IAM • Posterior to VII and VIII cranial nerves • High signal on T2, approximating CSF • Low signal on T1, approximating CSF • No enhancement • Restricted diffusion **Minor Findings:** • No mass effect on adjacent brainstem • No adjacent oedema • No other lesion
Likely Diagnosis	Epidermoid
Differential	None
Further Investigation or Management	None