### EMQ Theme: Headache

<table>
<thead>
<tr>
<th>Patient Details</th>
<th>Medical Actions</th>
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</thead>
<tbody>
<tr>
<td>45 yo F with band-like frontal headache + recent personal and job stressors. No neuro deficits.</td>
<td>Paracetamol + advice on lifestyle modification</td>
</tr>
<tr>
<td>65 yo F with subacute occipital headache, worse in the morning, associated with mild nausea. No neuro deficits.</td>
<td>Aspirin 600mg + Largactil</td>
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<tr>
<td>40 yo F with retro-orbital headache and weakness of all EOM.</td>
<td>Titrated doses of IV fentanyl + neurosurgery consult</td>
</tr>
<tr>
<td>25 yo M drinking alcohol last night. Now has unilateral headache + painful red eye + miosis + tearing.</td>
<td>Gabapentin and neurology consult</td>
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### EMQ Theme: Pregnancy

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Actions</th>
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<tbody>
<tr>
<td>A woman who has just delivered a healthy infant has large volume PPH. What is your first most important step.</td>
<td>CTG</td>
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<tr>
<td>A term woman in labour presents to ED. What procedure will you perform prior to transfer to the delivery suite.</td>
<td>Speculum examination</td>
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<tr>
<td>A woman presents to your rural ED in premature labour. How will you assess if she is safe for retrieval.</td>
<td>Left lateral tilt</td>
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<tr>
<td>A woman presents in labour. How will you determine fetal heart rate and lie.</td>
<td>Abdominal palpation</td>
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### EMQ Theme: Abdominal pain

<table>
<thead>
<tr>
<th>Patient Details</th>
<th>Diagnoses</th>
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<tbody>
<tr>
<td>Elderly patient in AF with severe pain but minimal abdominal findings.</td>
<td>Appendicitis</td>
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<tr>
<td>Elderly man from nursing home with constipation for 2 weeks + acute abdominal pain + distension.</td>
<td>Cholangitis</td>
</tr>
<tr>
<td>65 yo F with acute severe abdominal pain + back pain + hypotension.</td>
<td>Pyelonephritis</td>
</tr>
<tr>
<td>Patient with RUQ pain + jaundice + bilirubin in urine.</td>
<td>Diverticulitis</td>
</tr>
<tr>
<td>25 yo F with right loin to groin pain, urinary frequency but no dysuria, nausea and vomiting, microscopic haematuria + nitrites.</td>
<td>Diverticular disease</td>
</tr>
<tr>
<td>45 yo F who is perimenopausal presents with constipation and LLQ pain, low grade fever and tachycardia.</td>
<td>Renal colic</td>
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<td></td>
<td>Leaking AAA</td>
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<td></td>
<td>Mesenteric ischaemia</td>
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<td></td>
<td>Bowel obstruction</td>
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<td></td>
<td>Volvulus</td>
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<tr>
<td></td>
<td>Ovarian torsion</td>
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<tr>
<td></td>
<td>Ovarian cyst accident</td>
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<td>PID</td>
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</table>
EMQ Theme: Vertigo

Young person returned from diving with vertigo.
Normal ear examination.

A woman with onset of vertigo after rolling over in bed + fatiguable horizontal nystagmus

Older man with subacute history of hearing loss + episodic attacks of vertigo lasting up to 6 hours
A woman with a preceding viral infection

Perilymphatic fistula
Vestibular neuronitis
Labyrinthitis
Cerebellar-pontine angle tumour
BPPV
Meniere’s disease
Cerebellar CVA

EMQ Theme: Unsteady gait

Wide-based gait + dysarthria
Wide-based gait + confusion
Ataxia…

Peripheral nerve lesion
Charcot-Marie-Tooth
Myasthenia gravis
MS
Cerebellar stroke
Wernicke’s encephalopathy

EMQ Theme: Snakebite

Haematuria only
Rapid onset of VICC + neuro toxicity

Brown
Black
Tiger
Taipan
Sea snake

EMQ Theme: Arthritis

Picture of hand #1
Picture of hand #2

Psoriatic arthritis
Rheumatoid arthritis
Osteoarthritis

EMQ Theme: Arrhythmias

6 yo with normal BP + conscious state. Picture of ECG [SVT]

75 yo with normal BP + conscious state. Picture of ECG [rapid AFibuter]

Valsalva
Adenosine
Metoprolol
Amiodarone
Cardioversion
Defibrillation

EMQ Theme: Paediatric neck masses

Stem #1
Stem #2

Suppurative lymphangitis
Siladenitis
Thyroglossal cyst
Brachial cleft
1. 3 year old boy with femoral fracture, you need to provide analgesia/sedation to apply skin traction.
   a. Ketamine 1.5mg/kg IV
   b. Nitrous oxide
   c. Oral paracetamol + oxycodone
   d. Fentanyl

2. 18 month old child who is unvaccinated and attends childcare presents with 8 days of cough + coryza, and two days of paroxysms of coughing followed by post tussive vomits. Which is the best management option:
   a. azithromycin 10mg/kg PO
   b. paracetamol 15mg/kg PO PRN
   c.

3. Which of the following is the most common carpal bone fracture:
   a. hammate
   b. pisiform
   c. triquetral

4. Which of the following is true of laryngoscopes:
   a. the straight blade is used to pick up the floppy and anterior epiglottis
   b. the straight blade is placed in the vallecula
   c. the curved blade is superior to the straight blade in depressing the tongue

5. Which of the following is true of bimanual laryngoscopy:
   a. the operator holds the laryngoscope in their left hand whilst manipulating the cricoid with their right hand
   b. the operator holds the laryngoscope in their left hand whilst manipulating the thyroid cartilage with their right hand

6. When performing emergency cricothyroidotomy, what is the landmark for scalpel incision:
   a. just inferior to the thyroid cartilage
   b. just superior to the thyroid cartilage
   c. just inferior to the cricoid cartilage

7. A toddler is brought in 2 hours after an unwitnessed ingestion of oil of wintergreen (salicylate). He is asymptomatic. How should he be managed:
   a. discharge home
   b. haemodialysis
   c. gastric lavage
   d. charcoal

8. A child is brought in after a witnessed ingestion of iron tablets. He is known to have ingested 20mg/kg and is asymptomatic. How should he be managed:
   a. discharge home
   b. charcoal
   c. whole bowel irrigation
   d. desferoxamine
9. Young post with prolonged gastro-like illness. Image of XR [demonstrated dilated horizontal loop of bowel]. What is the diagnosis:
   a. Ileus
   b. Toxic megacolon

10. A 3 year old Aboriginal boy is brought to ED by his 18 year old mother. They have recently moved from the country to the city. He has had 3 days of vomiting and diarrhoea. He is not tolerating oral fluids at home or in the waiting room in ED. Most appropriate management:
   a. Discharge home with advice on oral hydration
   b. Place peripheral IVC and start IV fluids
   c. Admit to observation ward for supervised trial of oral fluids and early placement of NGT if oral rehydration is unsuccessful

11. Two year old child with gastroenteritis. Child weighs 15kg and is estimated 10% dehydrated but is not shocked. You want to rehydrate the child over 12 hours using IV fluids. Choose a fluid strategy:
   a. Normal saline + 5% glucose at 110mls/hr
   b. Normal saline + 2.5% glucose at 50mls/hr
   c. 1/2 Normal saline + 5% glucose at 110mls/hr
   d. 1/2 Normal saline + 2.5% glucose at 50mls/hr

12. Which of the following ECG changes would you expect to see in a patient with hypokalaemia:
   a. ST depression
   b. Short PR interval
   c. Short QT interval

13. Elderly patient with 4 days of burning unilateral torso pain + vesicular rash that started at the same time as the pain. Choose a management option:
   a. Oral antivirals
   b. Topical steroids
   c. Oral steroids
   d. Oral analgesia

14. Otitis media in a healthy, well appearing 12 month old child. Choose a management plan:
   a. Reassure parents and provide script to start amoxycillin if child not better in 72 hours
   b. Organise a review of the child within 24 hours

15. An 8 year old child presents with abdominal pain a day after he fell off his pushbike, striking his upper abdomen against the handlebar. He has a tender rigid abdomen and bruising over the LUQ. Which structure is most likely to be injured:
   a. Pancreas
   b. Small bowel
   c. Large bowel
   d. (Spleen was NOT an option)

16. Ultrasound image of lung (2D + M-mode). What does it demonstrate:
   a. Normal lung
   b. Pneumothorax
   c. Effusion
17. Supracondylar fracture with posterior displacement and peripheral nerve injury. Which clinical sign are you most likely to find:
   a. Failure to make OK sign and flex PIPJ + DIPJ
   b. Wrist drop

18. Penetrating injury to the neck below the level of the cricoid. Patient is well with no hard or soft signs. How will you investigate:
   a. CTA
   b. CXR + laryngoscopy + oesphagoscopy
   c. Laryngoscopy + bronchoscopy

19. Woman with subacute progressive lower limb weakness and fecal incontinence. What is the diagnosis:
   a. Guillain Barre
   b. Multiple sclerosis

20. Alcoholic man with cough + sputum that is blood-stained and jelly-like. Your antibiotic choice should cover which organism:
   a. Klebsiella
   b. Pseudomonas
   c. Staph aureus

21. Neonatal resuscitation. At which stage should you consider intubation:
   a. Stimulate, warm + dry infant, PPV for 1 minute and HR <100
   b. Stimulate, warm + dry infant, PPV for 2 minutes and HR <60
   c. Stimulate, warm + dry infant for 2 minutes and child is still cyanosed and flat

22. A man presents with a stroke. He is right handed and has a right hemiplegia. Which other clinical sign is he most likely to have:
   a. Expressive dysphasia
   b. Spatial neglect
   c. Dressing apraxia

23. A patient is diagnosed with PICA syndrome. Which of the following signs is the patient most likely to have:
   a. Contralateral limb ataxia
   b. Gaze away from the side of the lesion

23. Patient with SCC of the lung and a paraneoplastic syndrome. Which is the most likely finding:
   a. Hypercalcaemia
   b. Hyperkalaemia
   c. Hypokalaemia

24. An Aboriginal man with petechiae and painful lesions in his fingernails. Which is the most likely diagnosis:
   a. Bacterial endocarditis

25. Which of the following clinical features is most consistent with a diagnosis of major depression:
   a. Symptoms present for at least 2 weeks
b. Hypothyroidism

26. Which of the following clinical features is most consistent with a diagnosis of delusional disorder:

27. Which of the following features is most consistent with a diagnosis of dementia:
   a. Progressive loss of complex motor skills
   b. Isolated short term memory loss

28. Which of the following is true of trauma teams:
   a. Single tier vs two-tiered results in over- triage

29. Which of the following is true of sim medicine:

30. A patient with known myasthenia gravis presents with acute crisis. What investigation should you do:
   a. Ice pack test
   b. Ephodrium test
   c. Serial PEFR

31. Which of the following is the strongest indication for a CT A in a patient with traumatic head and neck injury:
   a. Base of skull fracture through the anterior vault
   b. Base of skull fracture through the temporal bone
   c. C7 fracture

32. A man falls from a pushbike with his neck flexed. Which of the following is the most likely injury he will sustain:
   a. Central cord syndrome
   b. C3 anterior tear drop fracture

33. A 30 year old female takes an overdose of metformin and gliclazide. Her BGL is 3. Choose a management option:
   a. Place a CVC and commence infusion of 50% dextrose
   b. Place a CVC and commence infusion of 50% dextrose and octreotide infusion only if metformin is slow release formulation
   c. Octreotide infusion

34. A returned traveller is diagnosed with dengue fever. Which clinical manifestation are you most likely to find:
   a. Rash
   b. Splenomegaly

35. Young man with first episode of shoulder dislocation:
   a. Risk of repeat dislocation is 50%
   b. Keep in shoulder immobiliser for 4 weeks
   c. Recommend early range of motion exercises to avoid joint stiffness

36. Which is true of cardiac echo in the ED:
   a. Absence of regional wall motion abnormality excludes coronary ischaemia as a diagnosis
   b. Something about assessment of LV contractility
37. A man who has fallen off motorbike with hip in abduction and externally rotated. What is the most likely diagnosis:
   a. Posterior hip dislocation
   b. Anterior hip dislocation
   c. Neck of femur fracture

38. Which of the following CSF findings is normal in an adult:
   a. CSF glucose 55% of serum glucose
   b. Protein 0.4
   c. 10 lymphocytes
   d. Opening pressure 22

39. Giving feedback to a JMO:
   a. Positive feedback can be given in public
   b. Wait till the end of term to give feedback

40. A patient with severe head injury and active scalp bleeding. Clinically patient has haemorrhagic shock. Which is the best neuroprotective strategy:
   a. Control the scalp bleeding
   b. Hyperventilate to pCO2 25-30mmHg
   c. Intubate with defasiculating dose of muscle relaxant to reduce sympathetic activity

41. [Image of an ECG demonstrating prolonged QT interval]. Which class of drugs is most likely to have caused this ECG:
   a. Antidepressants

42. How do you obtain the best view for laryngoscopy in an adult:
   a. Place a pillow under the head
   b. Place a pillow under the shoulders
   c. Elevate head of bed 30 degrees
   d. Place the occiput flat on the bed

43. Which of the following is true of CVC insertion:
   a. IJ and SC have lower rates of infection than femoral
   b. Anticoagulation is an absolute contraindication to SC CVC insertion
   c. The trendelenberg position reduces the risk of air embolism

44. A 40 year old man with chronic schizophrenia, history of amphetamine abuse and history of drug induced psychosis. He has not been compliant with his depot injections for 2 months and has been using ice. He is brought in by his family members concerned that he is now confused and agitated. What is the most likely diagnosis:
   a. Relapse of schizophrenia
   b. Drug induced psychosis
   c. Subarachnoid haemorrhage

45. A 75 year old woman with urinary retention.
   a. Insert an IDC and admit for overnight observation to ensure no post obstructive diuresis
   b. Perform SPC if multiple failed attempts at IDC insertion because it has a low complication rate
   c. Start an alpha-blocker because it is proven to relax bladder neck muscles
46. A 7 year old girl has had a recent bacterial throat infection and now has vulvovaginitis but no bloody discharge. What is the most likely cause:
   a. Pin worm
   b. Foreign body

47. You are managing a patient in a resus cubicle after termination of a generalised tonic clonic seizure. The patient has sats of 73% and obstructed breathing. Choose a management option:
   a. Jaw thrust + hudson mask at 15L/min
   b. Bag valve mask
   c. Oropharyngeal airway
SAQ  3 year old boy drowning
   - interpret blood gas
   - list prognostic factors
   - issues associated with having parents in the resus room and how to handle it

SAQ  Wound repair
   - young woman with stellate lesion on face
   - middle aged man with laceration to calf from rusty nail
   - large gaping tongue laceration
   - describe how you would repair each of these wounds

SAQ  Redback spider bite
   - list local and systemic symptoms
   - give the findings of RAVE and RAVE 2 studies

SAQ  A well appearing, afebrile 8 year old female with a rash
   - describe the rash
   - list differential diagnosis and the pathophysiology of each diagnosis

SAQ  Sedating the agitated patient
   - findings of the DORM study

SAQ  XR of femoral fracture
   - describe the XR
   - what are the problems associated with a pelvic binder
   - how would you manage compartment syndrome

SAQ  Child with croup
   - Describe XR

SAQ  Angioedema
   - list causes
   - list treatment options (drugs and doses)

SAQ  A firefighter with severe burns, decreased GCS and hypoxia
   - list and justify management priorities in the first 10 minutes

SAQ  GI bleeding in an elderly patient on dabigitran
   - list blood products and non-blood products you might give

SAQ  Pelvic fracture
   - describe advantages and disadvantages of eFAST in this patient

SAQ  Monteggia fracture-dislocation
   - describe XR

SAQ  Eclamptic seizure in a rural ED
   - management
   - how would you structure your referral to a retrieval service

SAQ  Hyperthermic patient
   - differential diagnosis and management
SAQ  Status epilepticus
-step wise approach to management

SAQ  Missed dialysis in a patient with end stage renal failure
-management of hyperkalaemia and APO

SAQ  You witness police approach a JMO at work about a patient from a previous shift, and the JMO gives the police a copy of the patient’s file.
-what are the legal and ethical implications
-if the police want a medical record, how should this be handled?

SAQ  Image of an eye in a patient with unilateral painless visual loss
-describe the image (?retinal haemorrhage)
-provide a differential diagnosis for any cause of visual loss along with associated clinical features

SAQ  Pregnant trauma patient
-interpret this CTG (CTG strip provided)
-list the pregnancy-specific injuries this patient might sustain

SAQ  Image of an ECG in an 80 year old female who had chest pain, but now resolved
-describe the ECG (?Wellens)
-management

SAQ  Male sex worker with penile discharge
-legal and ethical issues around consent for HIV testing
-empiric antibiotic management

SAQ  Neonatal jaundice
-indications for phototherapy
-what questions would you ask when taking the history and justify

SAQ  Febrile 3 week old child
-list 5 investigations you would perform and justify

SAQ  A junior doctor arrives late for a shift. You overhear the junior doctor boasting to other staff that he had a big night and is still intoxicated. How would you manage.