Illawarra Shoalhaven Local Health District

Emergency Medicine Fellowship Program

Topic-Based Quiz: Qs and As

Head & Neck incl. Eyes

Candidate Instructions

- Duration = 30min
- Props are included within the examination booklets
- Allocated marks for each question are shown
- Each mark is of equal weight
- There is no negative marking
- Write answers CLEARLY, and cross out any errors
- Answer within space provided
- Do not begin until instructed
- You may take examination book home with you

Good Luck!

Acknowledgement: Thank you to the trainees who have written these SAQs with the hope of making their colleagues sweat, but ultimately gain more exposure to exam practice. Good job.

Question 1 (7 marks)

A 10 year old girl is brought to the emergency department vomiting blood. Had a 150ml vomit in ambulance en route to emergency and had a tonsillectomy done privately 9 days ago.

On arrival she is able to talk, looks pale, and vital observations are:
HR 110/min
BP 90/60
SaO2 98% (room air)
RR 28/min
Temp 37

Classify post-tonsillectomy bleeding, and list one possible aetiology for each (2 marks)

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These patients rarely require intubation in the ED, however if RSI is performed, how would you modify your standard RSI in this setting? (3 marks)

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You can still see ongoing slow bleeding in the tonsillar bed
Describe 2 further management options with drugs and doses + route if applicable (2 marks)

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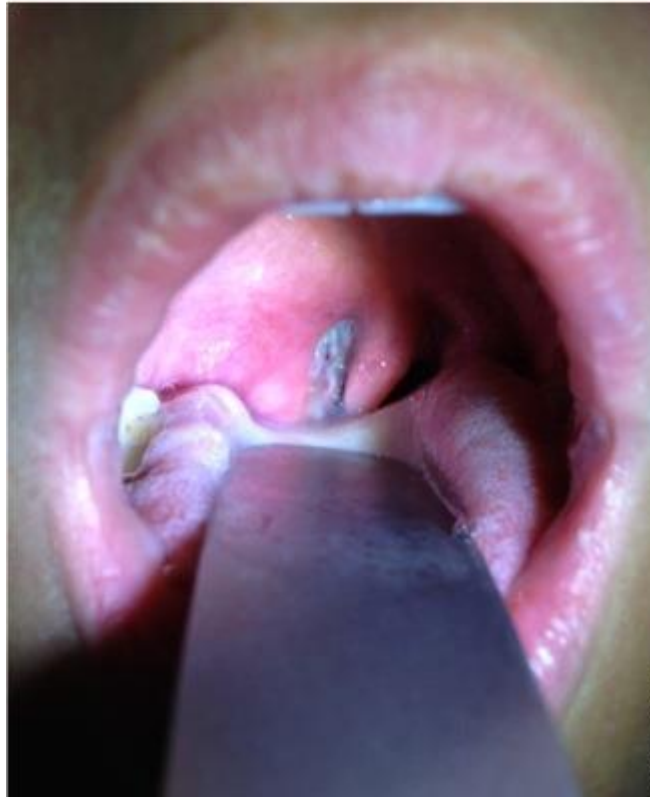
Question 2

A 35 year old man presents with 5 days of sore throat and painful swallowing. He has seen his GP 2 days ago who commenced him on oral amoxicillin. His symptoms have been worsening. You examine his throat and see the following:



Describe 3 important finding in the above picture (3 marks)

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What is the most likely diagnosis (1 mark)

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Describe 3 other signs/symptoms which will support above diagnosis (3 marks)

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List 3 differential diagnoses for the above described clinical picture (3 marks)

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Describe in steps how to drain a peritonsillar abscess (4 marks)

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Question 3

A 4 year old boy is brought in by his mother with fever for 2 days, vomiting, complaining of sore left ear. He is distressed and crying. His observations are as follows:

HR 140
Temp: 39
RR:30
O2sats 97% RA

You believe he has acute otitis media

List 3 examination findings to support this diagnosis (3 marks)

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Available evidence suggests most children receive minimal benefit from antibiotic therapy in acute otitis media. Outline 3 'red flags'(excluding severity of infection) that would lower the threshold for antibiotic therapy in acute otitis media (3 marks)

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List 3 possible complications of acute Otitis Media (3 marks)

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Question 4

A 65 year old man presents with sudden onset decreased vision in his right eye, preceded by sensation of flashing light for few minutes.

List 5 causes of unilateral Painless vision loss (2.5 marks)

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What bedside findings would suggest retinal detachment (4 marks)

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List 2 risk factors for Retinal Detachment (2 marks)

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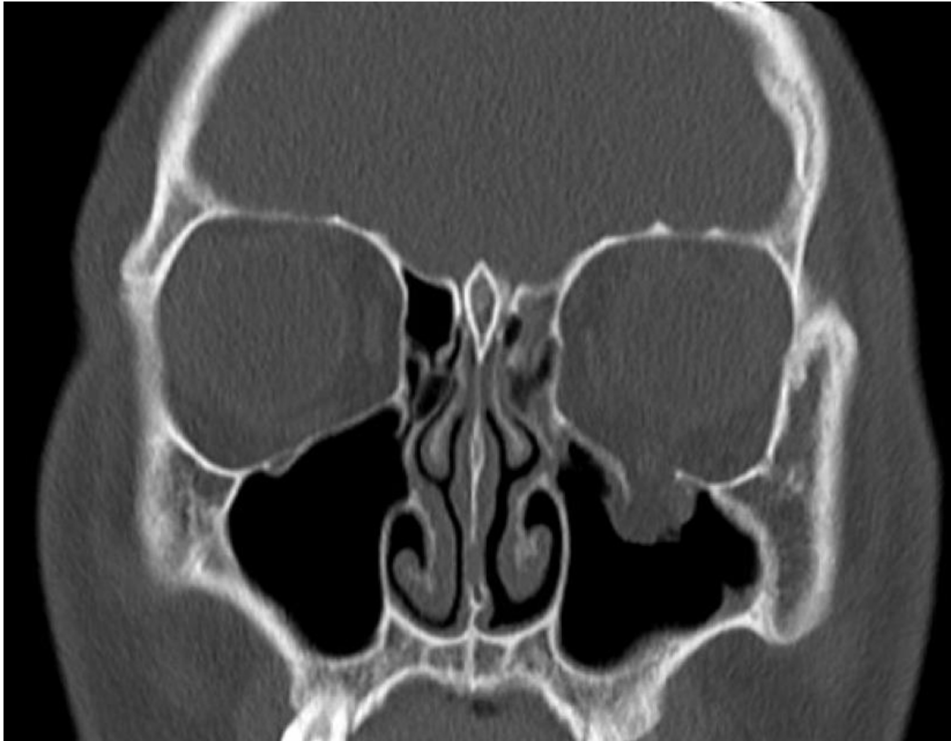
Question 5

A 25 year old man presents with left facial swelling after being punched in the face. Your intern orders a CT of the facial bones with is available below



List 3 significant findings in the CT image above (3 marks)

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List 3 complications of this injury (3 marks)

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Outline management priorities for this patient (4 marks)

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Topic-Based SAQ Quiz: Head & Neck incl. Eyes

ANSWERS

Question 1 (7 marks)

Classify post-tonsillectomy bleeding, and list one possible aetiology for each (2 marks)

- Primary --- less than 24hours, failure of primary hemostasis/ slipped ligature
- Secondary-- >24 upto10days postop, breakdown of fibrin clot

These patients rarely require intubation in the ED, however if RSI is performed, how would you modify your standard RSI in this setting? (3 marks)

- Pre-oxygenate / induce sitting up
    - High flow nasal O2 likely best pre-oxygenation tool as allows spitting up blood
- Pre-load with volume, ideally O Neg blood
- Double suction, likely to require 'SALAD'- suction assisted laryngoscopy + airway decontamination

You can still see ongoing slow bleeding in the tonsillar bed
Describe 2 further management options with drugs and doses + route if applicable (2 marks)

- Direct pressure with adrenaline-soaked gauze
- Tranexamic acid IV 15mg/kg
- Definitive: Exploration in the operating theatre and diathermy/suturing

Question 2

Describe 3 important finding in the above picture (3 marks)

- diffuse swelling in right side of oropharynx
- extending soft palate
- deviation of uvula to left

What is the most likely diagnosis (1 mark)

- Peritonsillar abscess/quinsy

Describe 3 other signs/symptoms which will support above diagnosis (3 marks)

- **Trismus**
- **Muffled voice**
- **Drooling**
- Tender cervical lymphadenopathy

List 3 differential diagnoses for the above described clinical picture (3 marks)

- **Peritonsillar cellulitis**
- **Retropharyngeal abscess**
- **Infectious moninucleosis**
- Neoplasm/ Lymphoma
- Foreign body

Describe in steps how to drain a peritonsillar abscess

- Topical local anaesthetic (cophenylcaine +/- nebulised lignocaine)
- 18g needle with needle cap trimmed to 20mm
- Aspirate at point of maximal fluctuance

    - If no aspirate, try 1cm above and below this point
    - If still no aspirate, manage as peritonsillar cellulitis
        - Can consider scalpel I&D
        - Some recent evidence that drainage similar in outcome to Abs only

Question 3

List 3 examination findings to support this diagnosis (3 marks)

- **Inflamed tympanic membrane**
- **Bulging tympanic membrane**
- **Perforated tympanic membrane**
- **Purulent discharge**
- Lack of light reflection on TM

Outline 3 'red flags'(excluding severity of infection) that would lower the threshold for antibiotic therapy in acute otitis media (3 marks)

- AOM in only hearing ear (ie. Deaf in unaffected ear)
- Cochlear implant – usually IV Abs and D/W ENT
- Indigenous children
- Immunodeficiency

List 3 possible complications of acute Otitis Media (3 marks)

- Tympanic membrane perforation
- Acute Mastoiditis
- Chronic otitis media with effusion + associated hearing loss
- Meningitis/Intracranial abscess
- Facial nerve palsy

Question 4

List 5 causes of unilateral Painless vision loss (2.5 marks)

- giant cell arteritis
- central or branch retinal artery occlusion
- retinal detachment
- central or branch retinal vein occlusion
- vitreous haemorrhage

What bedside findings would suggest retinal detachment (4 marks)

- Visual acuity reduced
- Visual field—unilateral visual field defect
- Pupils RAPD present
- Fundoscopy tear or bulging of retina, dark avascular area
- Bedside US showing retinal detachment

List 2 risk factors for Retinal Detachment (2 marks)

- Age > 50
- Previous retinal detachment in one eye
- Extreme myopia (nearsightedness)
- Family history of retinal detachment

- Previous eye surgery, such as cataract removal
- Previous severe eye injury
- Previous other eye disease or disorder

Question 5

List 3 significant findings in the CT image above (3 marks)

- Orbital floor fracture
- Protrusion of soft tissue through fracture, ?entrapment
- No air in the orbit

List 3 complications of this injury (3 marks)

- Muscle entrapment
- inferior orbital nerve entrapment/injury
- retro-orbital hematoma
- visual impairment
- infection/orbital cellulitis

Outline management priorities for this patient (4 marks)

- Analgesia – oral paracetamol / ibuprofen / oxycodone
- ADT + oral antibiotics (augmentin)
- Advise not to blow nose
- Maxillofacial Surg referral for ORIF