

Appendix 4. Sample Questions for end of clerkship examination and marking scheme

MCQs

A thirteen-year-old boy was brought to the accident and emergency department by his mother, complaining of pain to the right knee after falling and landing flat-footed from the monkey bars at school one week ago. He now ambulates with an antalgic gait since falling. There was no history of symptoms prior to the incident. The examination revealed a normal right knee with no evidence of trauma. Knee x-rays that were ordered revealed no abnormalities.

1. The next best imaging of choice should be

- A) CT Scan of the right knee
- B) Comparison x-rays of left knee
- C) MRI of the right knee
- D) X-rays of the hips**
- E) X-rays of the right ankle

2. Which of the following is the most likely diagnosis?

- A) Bone bruising of the knee
- B) Meniscal injury
- C) Undisplaced fracture of the tibial spines
- D) Grade 1 sprain of the medial collateral ligament of the knee
- E) Slipped upper femoral epiphysis**

3. An osteochondroma that has undergone malignant transformation is now referred to as what lesion?

- A) Osteosarcoma
- B) Osteblastoma
- C) Chondrosarcoma**
- D) Chondroblastoma
- E) Osteochondromatosis

4. What is the preferred upper limit of skin traction to the lower limb for a fracture of the proximal one-third of the femur?

- A) 20% of the patient's weight
- B) 20 – 22lbs
- C) 10 – 12lbs**
- D) 30 – 32lbs
- E) None of the above

End of clerkship exams (for Examiners)

Station 1

- What does this radiograph show? **Mid shaft oblique humeral fracture(15 marks)**
- Damage to what structure is commonly associated with this radiograph? **Radial nerve (20 marks)**
- What are the physical findings of injury to that structure? **Wrist drop and numbness to first web space (25 marks)**
- What are the types of injuries of that structure? **Neuropraxia , neurotmesis and axonotmesis(25 marks)**
- Which type of injury has the best prognosis? **Neuropraxia (15 marks)**

Station 2

Open Fracture case History

- a) What important information should be obtained in the patient's history? **(20 marks)**
- b) What are the steps in the examination of this patient in Accident and Emergency? **(40 marks)**
- c) What is the appropriate treatment of the open fracture in Accident and Emergency? **(40 marks)**

Station 3

Compartment syndrome history

- a) What information should be obtained from the patient? **(20 marks)**
- b) What should be the approach to the examination of this patient? **(40 marks)**
- c) What is the likely diagnosis? **(20 marks)**
- d) What should be the treatment for this diagnosis? **(20 marks)**

Station 4

- X-ray description **(20 marks)**
 - Adequate AP Radiographs
 - Possible disruption of SHENTON'S Line

- KLEIN'S Line
- WIDENING of the physis
- Metaphyseal Blanch sign of STEEL
- Prominence of the lesser trochanter
- Additional History (20 marks)
 - Ability to Ambulate – Stable vs. Unstable
- Examination (20 marks)
 - Abnormal gait – Antalgic
 - External Rotation of the Left lower Limb
 - Decreased ROM – Flexion, Abduction, Internal Rotation
 - Weakness +/- wasting of the left quadriceps
- Diagnosis/ Differential (10 marks)
 - Mild Chronic SCFE Left Hip
- Additional Investigations (10 marks)
 - Frog Leg Lateral of both hips
 - MRI
- Management (20 marks)
 - Insitu Fixation of the the Left Hip

Station 5

Hip Fracture

- **X-Rays description (25 marks)**
 - AP Radiograph of the Left Hip
 - Discontinuity of SHENTON'S LINE
 - Displaced
 - Transcervical
 - Shortening
 - External Rotation/Prominence of the Lesser Trochanter
- **Expected Examination of the Left Lower Limb (25 Marks)**
 - Flexion
 - Abduction

- External Rotation
- Shortening
- **Diagnosis (10 Marks)**
 - Displaced Intracapsular (Transcervical) Left Neck of Femur Fracture
- **What are the Treatment Options for NECK of Femur Fractures? (10 marks)**
 - Non-Operative/Conservative
 - Surgical
 - ORIF
 - Cannulated Screw Fixation
 - Sliding Hip Screw
 - Hemiarthroplasty
 - Total Hip Arthroplasty
- **What will you recommend for this patient(10 marks)**
 - Total Hip Arthroplasty
- **What are the factors for choosing your treatment option? (20 marks)**
 - Age of the patient
 - Level of Activity(Community Ambulator)
 - Displaced Fracture
 - Intracapsular/Transcervical Fracture