1. Lead examiner **……** **Candidate No:**

2. Co-examiner **……** **Final Mark:**

SCENARIO
It is 2100hrs in your urban district ED. An 18 y old man presents with right shoulder pain, sustained in an accidental fall less than 1 hour ago. He has no other injuries, but you suspect a shoulder dislocation.
Question 1: Discuss the Role of pre-reduction x-rays in this setting.

Expected Response	Details & Comments	Pass
Issues	Availability of x-ray: delays (esp in urban district ED) may compromise care Likelihood of dislocation, and associated fracture. Latter should not be relevant if dislocation present. Requires careful clinical assessment	Prompt: outline the pros and cons
Pros	- Markedly swollen and painful shoulder makes clinical assessment difficult - Higher chance of fracture if traumatic force great, first dislocation, non-anterior dislocation - Guides method of reduction: anterior vs posterior - Slight delay allows time for patient understanding, analgesia effect - relevant re medicolegal purposes	Must do Xrays if available Recurrent Vs new dislocation key
Cons	- Immediate definitive Rx is otherwise possible! - May not change management/reduction technique even if fracture present (whether acute fracture/Hillsachs Lesion/Bankart Fracture) - Unlikely fracture, given these circumstances - Prolonged delays may make reduction more difficult. This lesion is very recent. - Radiation exposure(this patient a male)	

Question 2: You opt for a pre-reduction x-ray, which is done promptly. Describe & interpret this film.

Expected Response	Details & Comments	Prompt for why candidates think it is anterior if going down wrong track Can you outline where the glenoid is? To pass must get posterior
Right Shoulder x-ray		
Posterior Dislocation R gleno-humeral Joint	Features suggestive of Posterior Dislocation: *On AP* a) Widening of the Joint Space b) 'Light Bulb' Sign of humeral head c) Suggestion of a 'Reverse Hill-Sachs' Sign (prob more evident on Tangential View in 1 set of xrays c.f. other set) *On Tangential Lateral View* a) humeral head lies behind scapula	
Relevant negatives	No fracture seen No other injuries seen	
Interpretation	Acute gleno-humeral posterior dislocation, **requiring urgent reduction**	

Question 3: The patient had a solid meal 2 hours prior to arrival. DISCUSS the sedation options for this patient.

Expected Response	Details & Comments	
Considerations	- Urgency of reduction/neurovascular compromise - Availability of GA/OT services - Suitability of patient for procedural sedation - Patient preference -Meal before or after injury -Evidence for aspiration in acute setting-2 hour meal -Posterior dislocation may be more prolonged/difficult **- Options:** None, Procedural, GA, Regional Block; Sedation agent	Prompt: outline the pros and cons
No sedation	**Pros:** no delays, no risk aspiration, early discharge if uncomplicated **Cons:** pain, higher chance technique failure, newer techniques not needing sedation more suitable for anterior lesions	**Talks around most considerati**

Procedural Sedation	**Pros:** easier to organise, high familiarity with staff, rapid **Cons:** fasting delay required (subject to recent re-evaluation), risks of aspiration, esp as not fasted - other risks associated with sedation - higher chance technique failure if inadequately sedated - high ED resource requirement, unsafe/difficult is busy dept	**ons at consultant level**
General Anaesthesia	**Pros:** Clinical "Gold Standard" **Cons:** Risks associated with GA; practically more difficult to organise; requirement for available anaesthetic staff + OT Significant delay not ideal for patient's condition	**Prompt for alternative techniques**
Regional Nerve Block	**Pros:** Averts risks of aspiration and others associated with sedation / GA; rapid onset of effect, provides effective post-reduction analgesia **Cons:** Less acceptable for patient, esp young man! Higher level expertise required; neuropraxia; vascular injury; inadequate effect, compromising reduction.	

Question 4: The patient is adequately and safely sedated in the ED. Describe your technique for reduction in this patient.

Expected Response	Details & Comments	Traction Abduction Disimpaction
Aim	To disimpact the posteriorly displaced humeral head from the posterior aspect of the glenoid.	
Technique(s) demonstrated should include/incorporate the following common principles	1. Slight upright sitting position best 2. Apply axial traction in line with humerus - slight abduction + flexion at shoulder - elbow may be bent/straight - countertraction offered by assistant (sheet around axilla + torso affected side, same force applied in opposite direction to upperlimb) 3. Gentle Internal rotation & adduction of shoulder (aids disimpaction of humeral head) 4. Humeral head can be pushed anteriorly by 2nd assistant/further disimpaction of humeral head from posterior glenoid can be achieved by applying pressure against the humeral shaft in a lateral direction 5. Gentle external rotation can be attempted	

Question 5: The injury has been successfully and safely reduced. Outline your considerations in the disposition of this patient.

Expected Response	Details & Comments	Prompt – safe discharge considerations Pass: All safety elements
Key Elements	- Joint stability - Adequate analgesia - Recovery from sedation - Rehabilitation - Follow up – incl return to normal function and recurrence prevention	
	- Assess Neuro-Vascular status of limb b/f discharge - Assess joint stability – unstable joints should be placed in a spica 40° abdn, 60° ext rotn, fully extended - Consultation with Orthopaedic Services if unstable /other concerns e.g. #s, N-V compromise - No complications of sedation -Ensure appropriate 'wearing off' of sedation - Ensure & provide adequate splinting & analgesia -Social situation -Transport -Intoxication - Consider SSU - Provide printed advice, esp return to function and avoidance of activities - Follow-up: GP, Physio	

Comments: (if you fail the candidate, please state why)

If the candidate fails the exam overall, what <u>feedback</u> would you suggest CIC provide for this SCE?

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