

SAQ 9

A 28 year-old man fell off his snowboard, landing on his outstretched left hand. He presented to the local clinic, where x-rays of the injured limb were taken. He was transferred to your ED.

A. State 5 key descriptors of this patient's injuries, as shown on x-rays: (5)

1. Fracture pattern: **Transverse (almost oblique).**
2. Fracture Site: **Radial shaft, at junction of distal and middle thirds.**
3. Bony Displacement: **Off-ended** and shortened.
Distal fragment is angulated (or tilted) antero-laterally.
4. **Dislocated / disrupted distal radio-ulnar joint**; diastasis of joint space
5. Dorsal and distal displacement of ulna, relative to distal radio-ulnar joint.

Examiner's Notes

- "Galeazzi" is a name, more than a descriptor of fracture pattern. Read each question carefully, and answer precisely what is asked: no more, no less.
- "Distal 1/3 of radius" is not specific enough, as there are many parts of the distal third. You were required to state distal third of radial shaft (or diaphysis). Better still, junction of middle and distal thirds of radial shaft.
- "Lower radius" and "radius of left hand" are not acceptable descriptors of fracture site. As a medical professional, you are expected to use proper anatomical terms.
- Remember that by convention, we describe the displacement of the distal fragment. Tilt (or angulation) is very relevant in displaced fractures; it must be described accurately if present.
- "Closed fracture" is not accepted because there is insufficient information to conclude this. Descriptors that suggest a closed injury, such as "bones within soft tissue margins" are acceptable.
- Bits in red (or reasonable equivalents) are essential. 3 out of 4 these required, without which a zero section score applies. At fellowship level, you are expected to be expert in basic fracture description, and to recognize special injuries like this one.

B. State the summary of this injury AND the implications for treatment. (2)

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1. Summary: **Galeazzi fracture-dislocation**
2. Implications for treatment: **Unstable injury requiring open reduction and internal fixation (ORIF)**

Examiner's Notes

- Recognizing and acknowledging a Galeazzi fracture-dislocation is ideal. If the eponymous name is not written, an accurate descriptive summary is sufficient.
- Candidates who did not mention ORIF did not score mark.

C. Complete the following table about wrist fractures in adults. Assume these are isolated injuries. (12)

Tintinalli 7th ed, p 1818 to 1819

Injury Type / Name	Typical Mechanism(s) of Injury (1) per cell	Fracture(s) Description as seen on x-ray (2) per cell
Colles	Fall onto outstretched hand	Distal radial metaphyseal # that's dorsally angulated, impacted and displaced dorsally. # of ulnar styloid may be present. Radial displacement of carpus.
Smith	Fall onto hand (initial supination that shifts into pronation); or direct blow to dorsum of wrist/hand.	Volar angulated # of distal radius. Radial fragment impacted and displaced anteriorly. Radial displacement of carpus.
Dorsal Barton	Fall onto hand; dorsiflexion and pronation force.	Dorsal rim # of distal radius. Radial fragment and the carpus are displaced dorsally and proximally. Radial styloid # may be present.
Volar Barton	Fall onto outstretched hand in supination.	Volar rim # of distal radius. Radial fragment and the carpus are displaced anteriorly and proximally. Radial styloid # may be present.

Standard Setting

This SAQ covers core material in Emergency Orthopaedics. All bits in red represent borderline standard, so overall borderline score for this SAQ is 12/19.

Examiner's SAQ Tips

- **Read each question carefully, and answer precisely what is asked: no more, no less.**
- Write answers that match questions. Ectopic answers (ie that do not match question) score no marks, even if the examiner understands what you're trying to express. For example, "radio-ulnar dislocation" is not an answer to "fracture site".
- Be careful with acronyms like "FOOSH". Consider if the interstate or NZ examiner will understand it. If in doubt, explain the first iteration with parenthesis. Common acronyms like "CXR", "ECG" and "ACEM" are self-explanatory.
- Legible handwriting is key to success. No point expressing your genius in a form that your assessor cannot decipher. If your handwriting is awful by nature, try printing individual letters or other strategies. Train with 3-hr sessions to develop mental and dexterous stamina, because brain / hand fatigue affects legibility.
- 9 minutes is insufficient time to write prose or paragraphs. Make your words count. Correct buzzwords and key phrases make a huge difference.
- How much you need to write is directly proportional to allocated marks.
- Read the entire SAQ over before answering the first part. This will help you understand the whole question in context, and insert answers in the appropriate sections. This SAQ has a good example: many candidates wrote "Galeazzi" in part A when it was not asked for, yet this answer was sought in part B.