

SAMPLE QUESTION ANSWERS SHOULDER

1. A Anterior glenohumeral instability

ADDITIONAL EXPLANATION

- a. Correct. The most common mechanism for anterior glenohumeral subluxation/dislocation is an indirect trauma with the arm abducted, externally rotated, and extended.
- b. Incorrect. is typically seen with a direct trauma to the superior shoulder
- c. Incorrect. The most common mechanism for posterior glenohumeral subluxation/dislocation is an axial load with the shoulder in adduction, flexion, and internal rotation
- d. Incorrect. The most common mechanism is a traction injury to the long head of the biceps or FOOSH.

2. a. Inferior Glenohumeral Ligament Complex & Biceps Brachii

ADDITIONAL EXPLANATION

- a. Correct: With the glenohumeral joint in 90°/90° Abd and ER, the primary restraints to anterior humeral translation are the Inferior Glenohumeral Ligament Complex & Biceps Brachii Correct: With the glenohumeral joint in 90°/90° Abd and ER, the primary restraints to anterior humeral translation are the Inferior Glenohumeral Ligament Complex & Biceps Brachii
- b. Incorrect. This would be injured with a AC sprain
- c. Incorrect. This would be injured with posterior instability
- d. Incorrect. This would be injured with an anterior SLAP injury

3. d. TUBS

ADDITIONAL EXPLANATION

- a. Incorrect. AMBRI stands for ATRAUMATIC MULTIDIRECTIONAL BILATERAL REHABILITATION (as appropriate) and rarely INFERIOR capsular shift surgery. This patient's injury was traumatic and there was no multidirectional instability as demonstrated by the negative Feagin's and Sulcus signs. These injuries typically respond well to physical therapy and surgery is typically not recommended.
- b. Incorrect. This patient had negative Feagin's and Sulcus signs – both assess for inferior instability of the shoulder.
- c. Incorrect. A Type 1 SLAP is associated with degenerative fraying of the superior labrum.
- d. Correct. TUBS stands for TRAUMATIC UNILATERAL anterior with a BANKART lesion responding to SURGERY.

4. a. Axillary

ADDITIONAL EXPLANATION

- a. Correct. Traumatic dislocations are often associated with Axillary nerve injuries
- b. Incorrect. The Dorsal Scapular nerve comes off of the superior trunk of the brachial plexus and is not near the site of injury.
- c. Incorrect. Proximal Radial nerve injuries are typically associated with Humeral shaft fractures. Radiographs showed no fractures with this patient.
- d. Incorrect. The Suprascapular nerve comes off of the superior trunk of the brachial plexus. It is often associated with injuries involving excessive protraction of the shoulder.

5. c. Mini-open

ADDITIONAL EXPLANATION

- a. Incorrect. While arthroscopic repairs were originally thought to be able to be progressed faster, research has shown that they must be progressed slowly due to the weaker fixation of the repair. Recurrence rates for arthroscopic repairs are high, between 8-17%
- b. Incorrect. Open repairs require the deltoid muscle to be released/detached from the clavicle or acromion. The patient cannot initiate AROM of the deltoid for 6-8 weeks. Recurrence rates for open procedures is 5%.

c. Correct. Mini-open repairs require a small, vertical incision be made between the anterior and middle deltoid fibers. This allows for early initiation of deltoid AROM and a faster course of rehabilitation.

6. a. 7-10 days

ADDITIONAL EXPLANATION

a. Correct. After a mini-open repair for a “small” tear, it is safe to D/C the sling in 7-10 days

b. Incorrect. A “medium” tear would require the sling to be kept until 2-3 weeks post-op

c. Incorrect. A “large” tear would require the sling be kept until 2-3 weeks postop

d. Incorrect.

7. a. <1cm

ADDITIONAL EXPLANATION

a. Correct.

b. Incorrect. A “medium” tear is 2-4 cm

c. Incorrect. A “medium” tear is 2-4 cm

d. Incorrect. A “large” tear is >5cm

8. b. Calcific tendonitis

ADDITIONAL EXPLANATION

a. Incorrect. AC joint pathology is associated with trauma to the superior shoulder. It can be associated with unremitting pain during the acute stages, however, this individual reported no trauma.

b. Correct. Calcific tendonitis is typified by an insidious onset of pain that is not relieved by position changes in the acute stages. Pain is typically in the lateral upper arm. Forward elevation often exacerbates this condition. It is a selflimiting condition that usually resolves within one week of onset

c. Incorrect. Deltoid tendonitis is usually associated with overuse and a decrease in symptoms with position changes.

d. Incorrect. Impingement syndrome is associated with overuse and decreased symptoms with position changes.

9. d. Middle Trapezius, Lower Trapezius, Serratus Anterior

10. a. Greater tubercle and associated rotator cuff tendons compress against the coracoacromial ligament during shoulder elevation and internal rotation

ADDITIONAL EXPLANATION

a. Correct. The coracoacromial ligament acts as the “roof” of the subacromial space. Flexion and internal rotation brings the supraspinatus, infraspinatus, and teres minor tendons into contact with the coracoacromial ligament (during abnormal arthrokinematics). Repeated trauma leads to pathology.

b. Incorrect. The lesser tubercle is medial to the greater tubercle and is the attachment for the subscapularis tendon only. During internal rotation, the lesser tubercle does not make contact with the coracoacromial ligament.

c. Incorrect. The coracoclavicular ligament is typically not thought to be involved with impingement.

d. Incorrect. The coracoclavicular ligament and lesser tubercle are typically not thought to be involved with impingement.

11. c. Grade 2

ADDITIONAL EXPLANATION

a. Incorrect. Normal laxity would produce minimal translation

b. Incorrect. Grade 1 laxity produces a feeling of the humeral head riding up to, but not over, the glenoid rim

c. Correct.

d. Incorrect. Grade 3 laxity produces a feeling of the humeral head overriding the glenoid rim and remaining dislocated.

12. D. Short duration (5-15 second) PROM

ADDITIONAL EXPLANATION

A. Incorrect. This patient has S&S of moderate irritability. This is a matched intervention for a highly irritable patient.

B. Incorrect. This patient has S&S of moderate irritability. This is a matched intervention for a low irritable patient.

C. Incorrect. This patient has S&S of moderate irritability. This is a matched intervention for a low irritable patient.

D. Correct. According to Kelley (JOSPT, 2009), this patient has S&S consistent with moderate irritability and this intervention is matched to this category.

13. D. None of the above. Length of immobilization does not alter the chance of recurrence.

ADDITIONAL EXPLANATION

D. Correct. According to Wang (JOSPT 2009) length of immobilization of up to 6 weeks does not alter the chance of recurrence at 10 years.

14. C. Pre: AP with slight internal rotation; Post: Scapular AP, West Point Modified Axillary View, Stryker Notch View

ADDITIONAL EXPLANATION

C. Correct. According to Wang, JOSPT, 2009

15. C. Stretching exercises

ADDITIONAL EXPLANATION

A. Incorrect: Grade C

B. Incorrect: Grade C

C. Correct: Grade B

D. Incorrect: Grade C

16. C. Internal Rotation Resisted Strength Test (IRRST)

ADDITIONAL EXPLANATION

A. Incorrect: this test consistently fails to meet diagnostic thresholds

B. Incorrect: this test is for ruling in>ruling out Supraspinatus Tendinopathy

C. CORRECT: According to Biederwolf (IJSPT, 2013) this test has very good predictive value (+LR 22, -LR 0.13). If IR MMT << ER MMT = Intra-articular pathology; if IR MMT >> ER MMT = Rotator Cuff pathology; if MMTs are equal the test points the examiner towards Extra-articular pathology (AC, LHB, etc)

D. Incorrect: this test consistently fails to meet diagnostic thresholds

17. B. 90 degrees

ADDITIONAL EXPLANATION

B. CORRECT: According to the American Society of Shoulder and Elbow Therapists' Consensus Rehabilitation Guideline (Gaunt, JOSPT, 2010).