



## AN AUDIT ON THE MANAGEMENT OF THE FIRST TIME SHOULDER DISLOCATION AFTER REDUCTION

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### ABSTRACT

**Background:** Acute shoulder dislocation carries a high risk of shoulder instability, Rotator cuff injury, and reduction in functional outcome. And their management after reduction has a crucial role in determining long-term morbidity. This paper aims To audit the management of first-time shoulder dislocation against the British Elbow & Shoulder Society (BESS) Guidelines. These guidelines are described as the following; All patients under 25 years should have early specialist risk assessment and shared decision making by shoulder surgeon before 6 weeks, patients between 25-40 years should be reassessed at the 3-6 month mark and diagnostic specialist imaging should be obtained if still symptomatic, and patients over 40 years should have early diagnostic imaging and early rotator cuff repair. **Methods:** A retrospective audit was carried out at King Hussein Medical Center identifying 50 patients presenting with acute shoulder dislocation over a 6 months period. After reduction, management plan and follow-up notes were analyzed and compared to the British Elbow & Shoulder Society (BESS) Guidelines. **Results and conclusion:** Low Adherence to BESS guidelines in managing such injuries were observed, especially for the young and the above 40-year-old age groups. Through departmental education and the introduction of clear protocols, the treatment of such injuries can be optimized.

**KEYWORDS:** Shoulder, dislocation, audit.

### BACKGROUND

Shoulder dislocation is the most frequent large joint dislocation in the human body, with an incidence of 1,7% (8, 2-17 cases per 100000 people per year).<sup>[1]</sup> Shoulder dislocations account for approximately 50% of all joint dislocations presented to emergency departments.<sup>[2]</sup> Traditionally, the initial management of a patient with the first episode of anterior shoulder dislocation is the reduction of the glenohumeral joint, followed by immobilization in a "safe position" for three weeks. This is followed by a period of physical therapy to recover shoulder range of motion and strength. According to the new guidelines published by the British Elbow & Shoulder Society (BESS), the management of these injuries is modified according to the age of the patient at presentation.<sup>[3]</sup> All patients under 25 years should have early specialist risk assessment and shared decision making by shoulder surgeon before 6 weeks, patients between 25-40 years should be reassessed at the 3-6 month mark and diagnostic specialist imaging should be obtained if still symptomatic, and patients over 40 years should have early diagnostic imaging and early rotator cuff repair.

### METHODS

A retrospective audit was carried out at King Hussein Medical Center of the management of patients presenting with a first-time shoulder dislocation between January-June 2021. This was done by searching for "shoulder dislocation" as a diagnosis in the Emergency Department patient registry. recurrent dislocations were identified and excluded from the audit. The remaining patients with first-time dislocation were followed up at the respective hospital. Images, Investigations, and follow-up notes were reviewed and the management was audited against BESS guidelines depending on patients' age group: <25, 25-40, and >40.

### RESULTS

Fifty patients were identified presenting with acute shoulder dislocation. Three patients were excluded from the audit for which they had irreducible fracture-dislocation and underwent urgent reduction and fixation to the greater tuberosity fracture.

Among 20 patients of the < 25-year-old age group only 5 patients (25%) had a specialist risk assessment and shared decision made by a shoulder surgeon before 6 weeks. And only 14 patients among the 22 patients of the

middle age group had been reassessed for signs of instability before 6 months (63%). No patient had early diagnostic imaging to assess rotator cuff integrity among 5 patients of the > 40-year-old age group(0%).

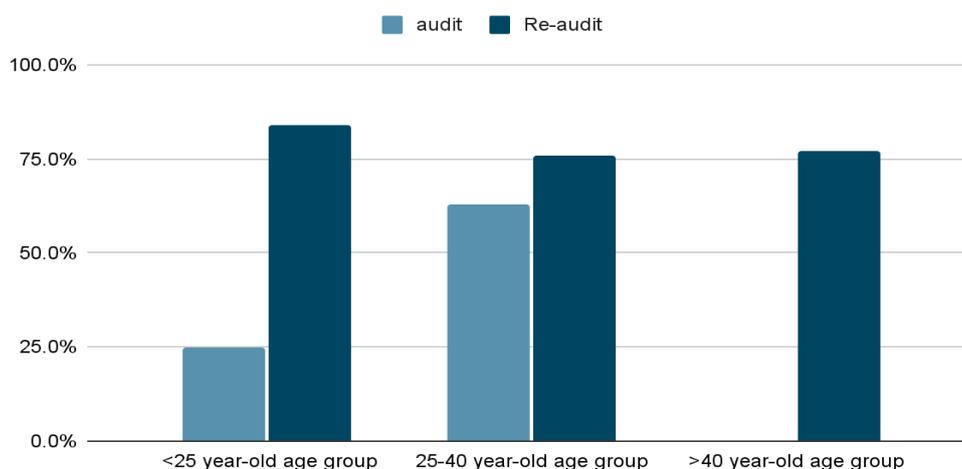
## DISCUSSION

The results of the audit show low compliance to BESS guidelines in all age groups especially in the young and the > 40-year-old age groups. However, the Residents and Junior specialists received consultant-led education and training on the management of shoulder dislocation according to the new guidelines. Continuous Communication with specialists at fracture clinics was established to enhance patient streamlining to the specialized clinics. Liaison with the Radiology department was done to enhance MRI imaging for patients > 40-year-old within one week of reduction.

## Re-audit

After the introduction of the new management protocol, our department was re-audited over a 6 month period. The data of 54 patients presented with uncomplicated acute shoulder dislocation were collected retrospectively. Follow-up notes, investigations, and imaging were reviewed and audited against the new guidelines. The results were promising especially for the young and the > 40-year-old age groups. Among 19 patients of the < 25-year-old age group, 16 patients (84%) were seen and evaluated at the fracture clinic at 3 weeks' appointments postreduction. Imaging with shoulder MRI was ordered for 9 patients and the final decision was made after the consultation of a shoulder surgeon of the sport and arthroscopy team. Within 26 patients of the middle age group, 20 patients (76%) were presented for reassessment at a fracture clinic at 3 months. And among 9 patients of the > 40-year-old age group MRI was ordered and referral to the specialized clinic was done for 7 patients (77%).

## Compliance to BESS guidelines



## CONCLUSION

Through departmental education and the introduction of clear protocols, the management of such injuries can be optimized.

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