Does the implementation of national BESS guidance on first time traumatic shoulder instability lead to improved outcomes?

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### Introduction

In 2015, BESS introduced national guidance for the management of first-time traumatic shoulder instability. The recommendation of a planned assessment with an upper limb surgeon in those aged <25 followed by an MR arthrogram if necessary and an USS in >40s to assess the rotator cuff was made. The aim of this guideline was to improve care of patients with first-time traumatic instability and possibly reduce the rate of redislocation. It was also important to reduce the delay in treatment for clinically relevant rotator cuff tears. However, it is unclear if such an improvement has been achieved.

# **Objectives**

The aim of this project was to assess whether implementation of BESS guidelines at Royal Derby Hospital led to a difference in rate of imaging, lag time to imaging and treatment as well as a reduction in redislocation rate.



Mean lag time

# Method

Patients >16 years of age presenting to Royal Derby Hospital with a first-time traumatic shoulder dislocation between Jan 2013 and Dec 2013 (preguidance) and between Oct 2016 and Dec 2019 (postguidance) were identified.

Patients with associated fractures were excluded.

Clinic letters and imaging records were used to collate rates of, and lag time to imaging and surgery, as well as re-dislocation rates.

Mean dislocations per person



### Results

- In total, 99 patients were in the pre-guidance and 342 patients in the post-guidance data collection period.
- Mean age was 48.4 years with a 2:1 male to female ratio.
- Percentage of patients aged <25 that had an MR arthrogram increased from 20.7% to 68.2% with mean lag time reducing from 119 to 62 days.
- Percentage of patients >40 years that had an USS increased from 42.2% to 60.1% with a mean lag time reducing from 74 to 36 days.
- Rate of surgery for instability in the under 25s and cuff tear in the >40s remained the same, but lag time did improve.
- Rate of dislocations only improved marginally in the <25s from 1.48 per person to 1.32 per person, but the number of patients <25 suffering 3 or more dislocations reduced from 13.8% to 6.1%.

### Conclusion

Implementation of national guidance on first time traumatic shoulder instability has led to an increased rate of imaging and decreased lag time from presentation to imaging and surgery. This has not led to a significant increase in rate of surgery or a significant reduction in the rate of re-dislocation.