

Compliance of thyroid ultrasound reporting with British Thyroid Association 2014 guidelines: an audit of local practice

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Introduction

- Thyroid nodules are a common finding, with 4-7% of the adult population having a palpable nodule and 50-70% having a nodule on ultrasound scan (USS)¹
- The British Thyroid Association (BTA) 2014 guidelines² recommend assigning a U-score (see **Table 1**) to thyroid nodules based on their USS appearance and then carrying out further investigations if necessary
- They state that further investigation is not required if a thyroid nodule is graded as U1 or U2, whereas fine needle aspiration (FNA) or biopsy is indicated for nodules graded U3, U4 or U5

Objectives

- To assess the compliance of thyroid USS reporting against current BTA 2014 guidance

Standards (as per the BTA 2014 guidelines)

- 100% of thyroid USS reports should contain a U-score
- 100% of nodules graded as U3, U4 and U5 require further investigation with FNA or biopsy (unless there is a good clinical reason not to)

Method

- 166 thyroid USS reports over a 2 year period were analysed
- Data was collected regarding: presence of a U-score, actual U-score (if present) and presence of recommendation for further investigation
- USS reports that contained a U-score of U1 were excluded as this represented a normal thyroid
- The highest U-score was used in USS reports that contained more than one U-score

Results

- Of the 166 USS reports analysed, 106 (63.86%) contained a U-score and 60 (36.14%) did not (see **Figure 1**)

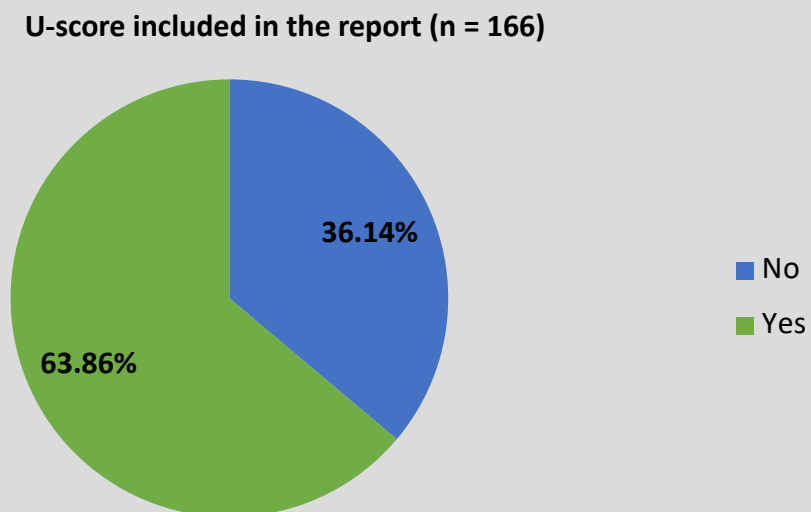


Figure 1 – Percentage of thyroid USS reports containing a U-score

- Of the 166 USS reports analysed, 53 (31.93%) contained U-scores of U3, U4 and U5.
- Of these 53 USS reports, 40 (75.47%) had a mention of FNA or biopsy and 13 (24.53%) did not mention anything about further investigation (see **Figure 2**)

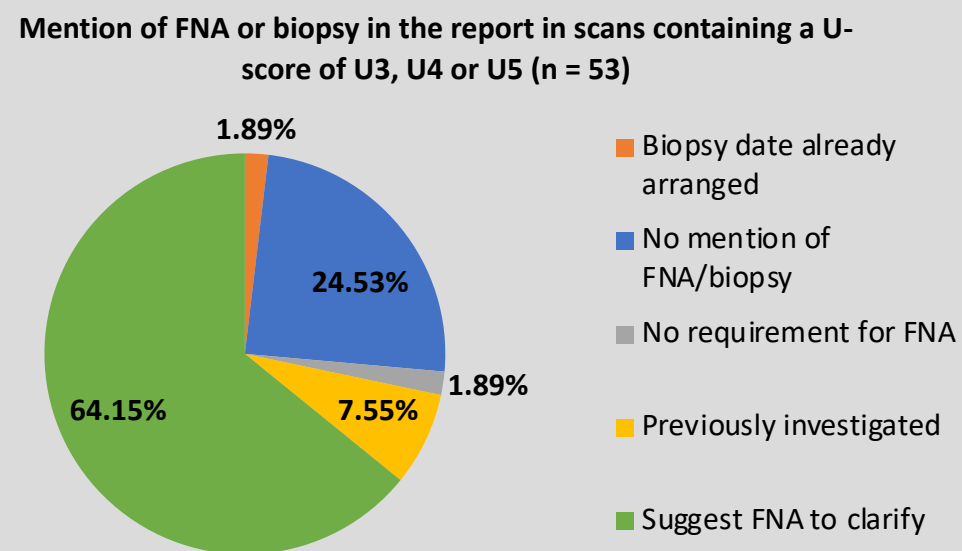


Figure 2 – Percentage of thyroid USS report responses containing a U-score of U3, U4 or U5 that mentioned FNA or biopsy

U-score	Description
U1	Normal
U2	Benign
U3	Indeterminate
U4	Suspicious
U5	Malignant

Table 1 – Descriptions of each U-score²

Conclusion

- Compared to the standards set by the BTA guidelines, Dumfries and Galloway Royal Infirmary has suboptimal compliance in both areas of thyroid USS reporting
- **63.86%** of USS reports contained a U-score (n = 166)
- **75.47%** of USS reports mentioned FNA or biopsy (n = 53)

Recommendations

- The results were presented to a local departmental meeting with the following recommendations:
 1. Posters containing images of thyroid nodules for each U-score should be provided in each sonography room
 2. A template (based on the BTA 2014 guidelines) should be created for health professionals to use when reporting thyroid USS scans
 3. Re-audit in 12 months

References

1. Mehanna HM, Jain A, Morton RP, Watkinson J, Shaha A. Investigating the thyroid nodule. *BMJ*, 2009; 338: 705-709.
2. British Thyroid Association. Guidelines for the management of thyroid cancer. 3rd ed. *Clinical Endocrinology*. 2014; 81 (Suppl. 1): 1-122.