

# **The Role of Ultrasound Compared to Biopsy of Temporal Arteries in the Diagnosis and Treatment of Giant Cell Arteritis (TABUL): a diagnostic accuracy and cost-effectiveness study**

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**Declared competing interests of authors:** Raashid Luqmani received honoraria from GlaxoSmithKline (GSK), Nordic and Chemocentryx for training in the use of the Birmingham Vasculitis Activity Score and Vasculitis Damage Index, and personal fees from Roche outside the submitted work. Raashid Luqmani received grants from Fundação para a Ciência e Tecnologia (Portugal), Canadian Institute of Health Research, Arthritis Research UK, Patient Centered Outcomes Research Institute, Oxford University Hospitals NHS Trust Innovation Challenge Competition and Vasculitis UK. Raashid Luqmani has patents pending for a mechanical arm to automate acquisition of ultrasound images and analysis for reviewing ultrasound images. Bhaskar Dasgupta received personal fees from GSK, Servier, Roche, Merck, and Mundipharma and grants from Napp outside the submitted work. Andrew Hutchings was funded by a Medical Research Council special training fellowship in health services research during the development of the study. Jennifer Piper has a patent pending for an ultrasound arm.

Published November 2016

DOI: 10.3310/hta20900

## Plain English summary

### The Role of Ultrasound Compared to Biopsy of Temporal Arteries

Health Technology Assessment 2016; Vol. 20: No. 90

DOI: 10.3310/hta20900

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## Plain English summary

**G**iant cell arteritis (GCA) is a disease causing blood vessel inflammation which, if left untreated, can cause permanent blindness. Patients with suspected GCA usually have a minor surgical procedure that involves taking a biopsy from one of the arteries on the side of the head. A positive biopsy confirms the diagnosis, but many patients with negative biopsies are eventually diagnosed with GCA. We compared the accuracy and cost of an alternative test for GCA, namely an ultrasound scan of arteries, with taking a biopsy. We scanned and biopsied 381 patients with suspected GCA and followed them for up to 6 months to see who actually had GCA; 257 (67%) patients were eventually diagnosed with GCA. Ultrasound was better than biopsy at identifying patients who did have GCA: it identified 54% of these patients compared with 39% identified from biopsy. Biopsy performed better than ultrasound in the patients who did not have GCA: none of these patients had a positive biopsy, whereas 19% had a positive scan.

We also looked at different testing strategies combined with a doctor's assessment of the patient. A strategy that involves scanning all patients with suspected GCA identified 93% of those patients with GCA. This strategy was also cheaper (by £485 per patient) than the current practice of relying on a doctor's assessment and biopsy alone.



ISSN 1366-5278 (Print)

ISSN 2046-4924 (Online)

Impact factor: 4.058

*Health Technology Assessment* is indexed in MEDLINE, CINAHL, EMBASE, The Cochrane Library and the ISI Science Citation Index.

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## This report

The research reported in this issue of the journal was funded by the HTA programme as project number 08/64/01. The contractual start date was in January 2010. The draft report began editorial review in June 2015 and was accepted for publication in July 2016. The authors have been wholly responsible for all data collection, analysis and interpretation, and for writing up their work. The HTA editors and publisher have tried to ensure the accuracy of the authors' report and would like to thank the reviewers for their constructive comments on the draft document. However, they do not accept liability for damages or losses arising from material published in this report.

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