

GCA) and TAB rate would have reduced by > 50%. Mean days on prednisolone pre-TAUS was 10.6 (median 7, range 0-81).

**Conclusion:** We can use TAUS to diagnose GCA in a proportion of patients. When the pre-test probability of GCA is low, negative TAUS excludes GCA. When the pre-test probability of GCA is moderate-high and TAUS is positive, the likelihood of GCA is very high. In both these scenarios, TAB is not needed. We have used these data to successfully argue the business case for a new GCA FTP incorporating rapid rheumatology assessment and TAUS, where TAB is reserved for unclear cases. As a result, we expect TAUS sensitivity to increase, as it is very glucocorticoid sensitive.

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#### 152 REDUCING THE NEED FOR TEMPORAL ARTERY BIOPSY THROUGH A RHEUMATOLOGY-LED FAST TRACK ULTRASOUND SERVICE FOR GIANT CELL ARTERITIS

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**Background:** Temporal and axillary ultrasound (TAUS) can reduce the need for temporal artery biopsy (TAB) in the diagnosis of giant cell arteritis (GCA). However, TAUS is very glucocorticoid and operator dependent and we wanted to demonstrate its benefit in our own centre before incorporating it into our new fast track pathway (FTP). From January 2016 - March 2017, unless deemed very low risk of GCA, or contraindicated, all patients undergoing TAUS were referred for TAB, to allow performance of the new test to be compared to standard practice.

**Methods:** TAUS was performed by a consultant rheumatologist with MSK ultrasound experience, who had completed a three day TAUS training programme and performed about 30 TAUS at another Trust (VQ). A GE Logiq S8 ultrasound machine was used; 6-15MHz linear probe for axillary and 18MHz hockey-stick probe for temporal arteries. The following were collected during an audit of all patients undergoing TAB and/or TAUS from January 2016-March 2017: VQ committed each patient to low, moderate or high pre-test probability of GCA using all evidence in the electronic patient record (EPR) before TAUS and/or TAB; TAUS and/or TAB result; number of days on prednisolone before TAUS; final diagnosis of GCA or not-GCA (clinical diagnosis using the EPR to May 2017).

**Results:** 53 TAB and 39 TAUS were performed. 29 patients had both TAB and TAUS. Sensitivity and specificity compared to clinical diagnosis of GCA was 56%(39) and 100%(100) for TAB, 58%(54) and 95%(81) for TAUS and 71%(65) and 92%(81) for TAB+TAUS respectively, which compared favourably to results obtained in TABUL, an international multi-centre study comparing TAB to TAUS (TABUL results shown in brackets). 13/13 (100%) patients with a low pre-test probability of GCA and negative TAUS did not have GCA at follow up, whilst 11/12 (92%) of patients with a medium or high pre-test probability of GCA and positive TAUS were diagnosed with GCA at follow up; if these patients had not had TAB, only 2.6% of TAUS patients (1/39) would have been incorrectly diagnosed (treated for