Providers' Perspectives on Diagnostic Testing for Giant Cell Arteritis

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BACKGROUND

Suspected giant cell arteritis (GCA) is a rheumatologic emergency, but there is no standard pathway for diagnosis at our center. Currently, many specialist providers are involved in the diagnosis and treatment of patients with GCA , including rheumatologists, neurologists, ophthalmologists, general surgeons, and nuclear medicine physicians. Prior work identified a wide variability in the approach to diagnostic testing of patients with suspected GCA, however there is very limited data re: providers' perspectives on the process or barriers encountered.

OBJECTIVE

To improve our understanding of physicians' experiences with diagnostic testing for GCA by identifying specialty-specific barriers and opportunities for improved access.

METHODS

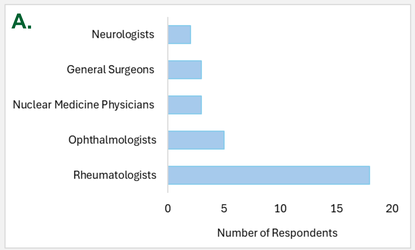
Surveys were created to sample the following physician populations on their experiences with diagnostic testing for GCA. Providers in Edmonton, AB were invited via email to complete the anonymous electronic survey.

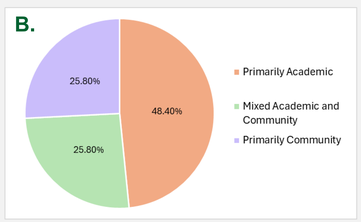
- Providers who perform TABs
  - Ophthalmologists
  - General Surgeons
- Providers who interpret PET/CTs
  - Nuclear medicine physicians
- Providers who use test results to guide care:
  - Rheumatologists
  - Neurologists

Results compiled, averages with adequate sample sizes analyzed with One-Way ANOVA.

Figure 1. Method of survey creation, provider populations, and analysis

SURVEY DEMOGRAPHICS





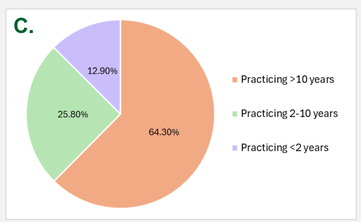


Figure 2. Demographics of survey respondents. **A.** Provider specialties, total respondents n=31. **B.** Practice setting. n=15 academic, n=8 community, n=8 mixed. **C.** Length of practice. n=19 >10 years, n=8 2-10 years, n=4 <2 years)

RHEUMATOLOGIST/NEUROLOGIST RESULTS

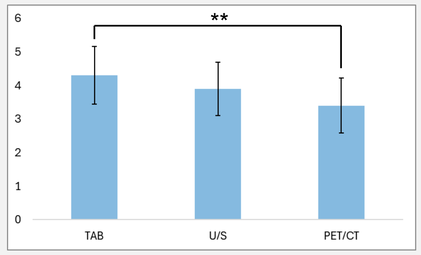


Figure 3. Importance of urgent access to Temporal Artery Biopsy (TAB), Ultrasound (U/S) and PET/CT for GCA diagnosis. 1=not important, 5=essential. Error bars represent SD. **p<0.005.

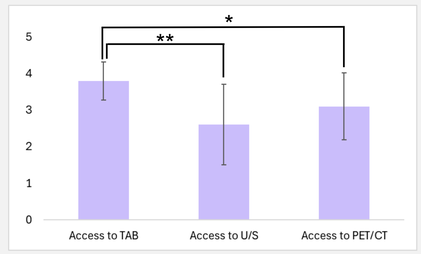


Figure 4. Ease of access to Temporal Artery Biopsy (TAB), Ultrasound (U/S) and PET/CT. 1=easy to access, 5=cannot access. Error bars represent SD. *p<0.05, **p<0.001.

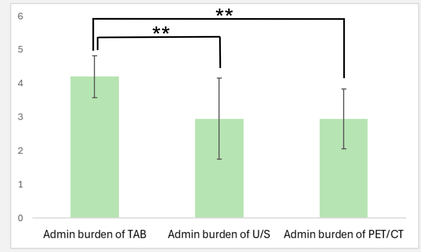


Figure 5. Administrative burden of arranging Temporal Artery Biopsy (TAB), Ultrasound (U/S) and PET/CT. 1=almost none, 5=a great deal. Error bars represent SD. **p<0.001.

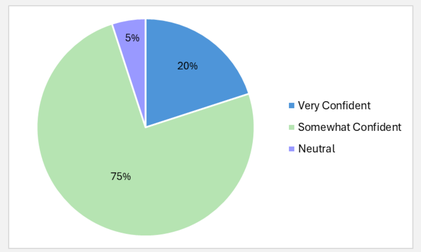


Figure 6. Perceived confidence in current ability to diagnose or exclude GCA. n=1 neutral, n=15 somewhat confident, n=4 very confident.

OPHTHALMOLOGIST/GENERAL SURGEON RESULTS

8 Surgeons Completed Survey

- 6 Ophthalmologists and 1 general surgeon Average 6-10 TABs per year
- 2 surgeons did not perform TABs

Figure 7. Survey respondents of surgeons and average rate of Temporal Artery Biopsies.

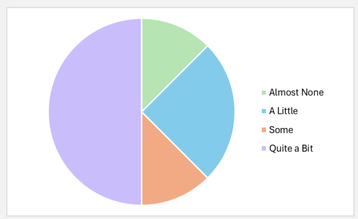


Figure 8. Administrative burden of arranging Temporal Artery Biopsies. n=1 almost none, n=2 a little, n=1 some, n=4 quite a bit.

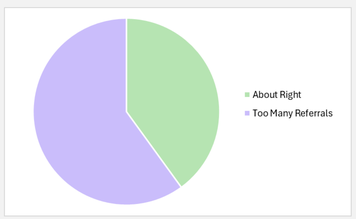


Figure 9. Perceived appropriateness of Temporal Artery Biopsy referral frequency. n=2 about right, n=3 too many referrals.

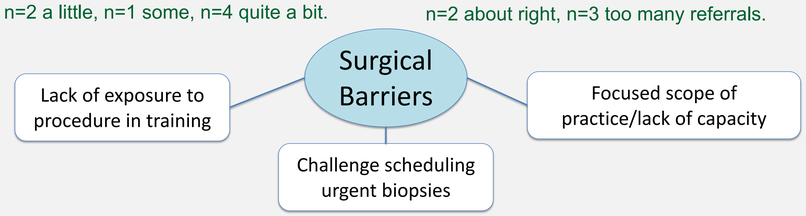


Figure 10. Identified surgical barriers to temporal artery biopsy access

NUCLEAR MEDICINE RESULTS

3 Nuclear Medicine Physicians Completed Survey → Average read 21-30 PET/CT scans for GCA per year

Figure 11. Survey respondents of nuclear medicine physicians and average rate of PET/CT scans analyzed.

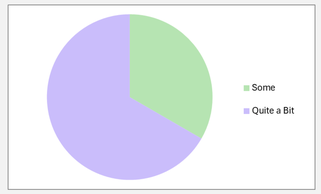


Figure 12. Administrative burden of arranging urgent PET/CT for query GCA. n=1 some, n=2 quite a bit

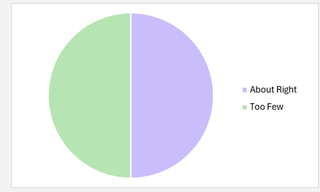


Figure 13. Perceived appropriateness of PET/CT scan referral frequency. n=1 about right, n=1 too few referrals.

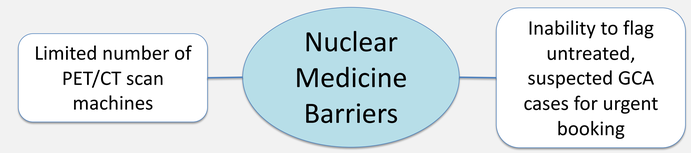


Figure 14. Identified nuclear medicine barriers to PET/CT scan access

OVERALL SATISFACTION

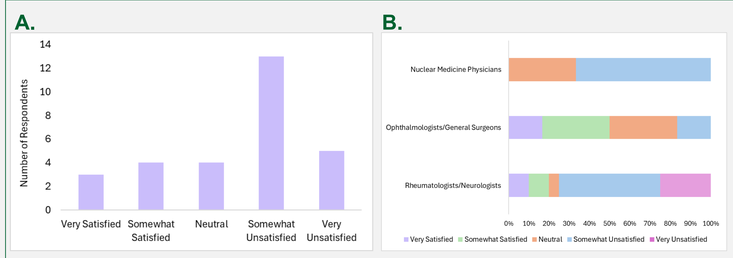


Figure 15A. Provider satisfaction with current diagnostic/referral process for patients with query GCA. n=29. **B.** Satisfaction percentages by specialty.

CONCLUSION

Providers across multiple specialties were generally unsatisfied with current diagnostic testing for GCA, and overall perceived confidence in ability to accurately diagnose is low (20% very confident).

RECOMMENDATIONS:

- Discussions between physician groups who request and who perform diagnostic tests for GCA are needed to improve care pathways & reduce administrative burden on both ends
- Increasing the availability of TA U/S may help offset the need for TAB and PET/CT
- Creating a process to flag active, untreated GCA cases for urgent PET/CT in the EMR may streamline booking requests.