Clinical Question: What set of symptoms and signs best diagnose patients with suspected GCA?

1. Describe the case:
74 yo F with recent onset of daily bitemporal HA. PE unremarkable. ESR 64. Will additional history or PE findings modify suspicion of TA or historical features alone warrant proceeding to temporal artery bx?

2. Explain how you found the article:
Initially did a PubMed search with MeSH heading: Giant Cell arteritis symptoms—nothing. Regular PubMed search—too many articles. Ultimately used DynaMed to read about GCA and looked at their reference articles.

3a. Describe the study: Review article primarily using retrospective analyses
3b. Describe the research question: PICO not really applicable in a review article. The question the review article attempted to answer: What is the diagnostic value of the varied individual clinical features in predicting the likelihood of positive temporal artery biopsy?

4. State the relevance/importance/context of the question: Untreated or unrecognized GCA/TA can lead to permanent vision loss. Prompt diagnosis and treatment will prevent this catastrophic outcome. Improving clinical prediction of diagnosis will also prevent unnecessary work-up including temporal artery biopsy.

5. Methods: MEDLINE search of English language articles bw January 1966-July 2000 as well as a search of bibliographies of retrieved articles, previous reviews, monographs and textbooks. Eligible studies were those that provided detailed clinical information on patients who were referred for temporal artery biopsy. 114 studies retrieved; 41 met inclusion criteria; 21 articles formed the core of this review—those which included both biopsy-positive and biopsy-negative patients. Total of 2,680 patients, 1050 with positive bx results.

6. State your answers to the critical appraisal questions on validity:
Authors made sure to include only articles that provided detailed information on symptoms of patients. Attempted to exclude all articles where authors published on overlapping pts. Used positive biopsy to be gold standard for dx GCA. Verification bias exists as these pts studied were already pts referred for biopsy (already clinically suspected of having dz) — not possible to determine the factors that went into decision to refer for bx (this makes significance of analysis greater since it predicts bx results of pts already suspected of having disease)

7. Summarize Results:
Accuracy of diagnosing GCA/TA based on history:
- 14 historical features (anorexia, wt loss, arthralgia, diplopia*, fatigue, fever, temporal HA, any HA, Jaw claudication*, myalgia, PMR, unilateral vision loss, any visual sx, vertigo).
- Only 2 had sufficient power to be useful
  - Jaw claudication LR 4.2 (insensitive, but specific)
  - Diplopia LR 3.4 (absence does not sig modify probability of disease neg LR 0.95)
- Negative LR of all 14 features was ~1. The absence of any particular feature does not f/o GCA

Accuracy of diagnosing GCA/TA based on physical exam: (findings on PE were more likely to influence probability of positive temporal artery bx than were historical features)
- Synovitis present: temporal artery bx + less likely (+LR 0.41)
- Absence of temporal artery abnormality: bx less likely (LR 0.53)
- Scalp tenderness (+LR 1.6—similar w/wo dz)
- *Beading, prominence, enlargement of TA+LR>4
Age: Avg age of pt with + biopsy was 73 (3.8yr older than avg age neg bx). 26 studies provided data to determine age range of pt with bx proven GCA. Only 2 pt out of 1435 were <50. This resulted in sensitivity of 99% for criterion age>50.

Overall, many of the clinical features found in pts with GCA are unhelpful in predicting likelihood of positive biopsy

8. Describe why you think the results can be applied to your patients:
- Difficult to interpret from this study alone b/c no information on patients given
- Prevalence of GCA for pt >50 is 24.2 per 100,000 women and 8.2 per 100,000 men (data from population data from Olmsted Co MN)
- GCA more common in white than AA

9. Utility of this information in my practice?
- Importance of thorough temporal artery examination
- Still need to look at many factors in determining who to send for bx