



Effective Health Care

Anti-nuclear antibodies (ANA) Screening in Community Populations

Next Steps

The nominator is interested in a new systematic review to determine if screening for anti-nuclear antibodies (ANA) in community populations leads to early detection of systemic autoimmune rheumatic diseases (SARDs). There is broad clinical consensus that clinicians should not use ANA to screen for SARDs in primary care; therefore, there is no clinical uncertainty that a new systematic review could potentially address. No further activity on this topic will be undertaken by the Effective Health Care (EHC) Program.

Summary

Topic Name and Number: 0792 Anti-Nuclear Antibodies (ANA) Screening in Community Populations

Date: 10/2/18

Key question(s) from the nomination: Can general screening of anti-nuclear antibodies (ANA) vs. targeted screening according to clinical criteria lead to the early detection of systemic autoimmune rheumatic diseases?

- An Anti-Nuclear Antibodies (ANA) test is a blood test to detect whether a person is having an inappropriate autoimmune response.¹ Clinically, it has been used as one of the first steps to diagnose a range of systemic autoimmune rheumatic diseases (SARDS) including systemic lupus erythematosus, Sjogren's syndrome, systemic sclerosis, myositis, and mixed connective tissue disease.
- Approximately 25% of the general population has measurable levels of ANA in their blood.² When combined with the low prevalence of SARDS (2-5 cases per 1,000 people³) the use of ANA to detect SARDS has poor positive (PPV) and negative (NPV) predictive values (PPV 29%, NPV 77%).⁴ Nevertheless, general ANA screening for SARDS persists, leading to increased health care costs with unclear clinical benefit.⁵
- There is broad clinical consensus that ANA testing (including ANA sub-serologies) should not be used to screen for SARDS. Professional societies who have endorsed this approach include the American College of Rheumatology,⁶ American College of Physicians,⁷ American College of Pathologists,⁸ and the Canadian Rheumatology Association,⁹ several of whom collaborated on the Canadian and American Choosing Wisely Campaigns on this subject. Given this broad agreement, there is no clinical uncertainty that a new systematic review could potentially address.

References

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