

The Use of Anti-Nuclear Antibody (ANA) and Anti-Double Stranded DNA (Anti-ds DNA) Tests in NL

Choosing Wisely Canada Recommendation

Don't order ANA as a screening test in patients without specific signs or symptoms of systemic lupus erythematosus (SLE) or another connective tissue disease.

Practice Points

1. The incidence of SLE is 10-250/million in North America, with females representing 90% of patients; 85% will have disease activity before 55 years.
2. ANA is not indicated unless a connective tissue disease is a significant possibility.
3. ANA > 1:80 is required to consider the presence of SLE.
4. ANA is not indicated as a screening test to evaluate fatigue, back pain, or other musculoskeletal pain without other clinical indicators.
5. ANA is not indicated to confirm a diagnosis of rheumatoid arthritis or osteoarthritis.
6. ANA testing need only be ordered once.
7. Anti-ds DNA test is used to monitor disease activity in patients diagnosed with SLE.
8. ANA costs \$24/test, with an estimated provincial annual cost of \$291,000.

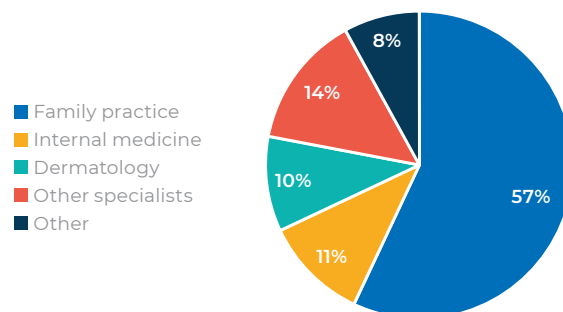
Methods (PI: Dr. L. Jones)

1. ANA and anti-ds DNA tests ordered in NL from 1 Apr 2016 – 31 Mar 2018 (2 years) and undertaken at the Health Sciences Centre laboratory, were analysed by doctor, ordering speciality, age, and sex.

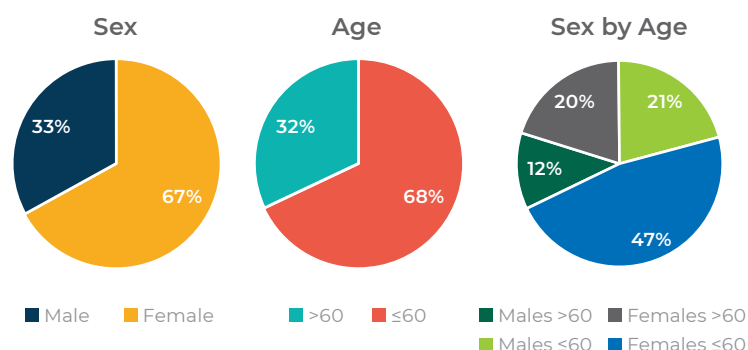
Results

- 24,428 ANA and 7,909 anti-ds DNA tests were performed. The rates of testing are 23,448 ANA tests annually/million population and 7,461 anti-ds DNA/million.
- 7% of ANA were repeat tests.

ANA Test Ordering by Specialty (N=24,428)



ANA by Sex and Age >60 Years



- 33% of ANA tests were in male patients and 32% were in people >60 years.
- 53% of tests were in low risk groups: males and people >60 years.
- 48% of anti-ds DNA were in low risk groups.

Conclusions

1. The number of ANA and anti-ds DNA tests ordered relative to the incidence of connective tissue diseases is very high.
2. The majority of tests were ordered in low risk groups (males and people >60 years).
3. Repeat unnecessary ANA tests accounted for 1,687 tests over two years.
4. Testing should be only undertaken in patients with signs or symptoms of SLE or other connective tissue diseases.