

The Diagnosis of Spondyloarthritis using HLA-B27

Choosing Wisely Canada Recommendation

Don't order an HLA-B27 unless Spondyloarthritis (SpA) is suspected based on specific signs or symptoms.

Practice Points

1. Ankylosing Spondylitis (SpA) is a progressive inflammatory rheumatologic disease, which can be ameliorated by medical interventions.
2. In patients with ≥ 3 months of back pain and age of onset < 45 years SpA is a potential diagnosis.
3. This diagnosis may be made by finding: sacroiliitis on MRI or HLA- B27 with at least two features of SpA.
4. An inexpensive HLA-B27 test has been developed locally (tagSNP).
5. HLA-B27 test utilization over 33 months at Eastern Health is presented.

ASAS Classification Criteria for Axial Spondyloarthritis (spA)

In patients with > 3 months back pain and age at onset < 45 years.

Sacroiliitis on imaging*
plus ≥ 1 SpA feature

OR

HLA-B27 plus ≥ 2
SpA features

SpA features:

- inflammatory back pain
- arthritis
- enthesitis (heel)
- uveitis
- dactylitis
- psoriasis
- Crohn's/colitis
- good response to NSAIDs
- family history for SpA
- HLA-B27
- elevated CRP

* Sacroiliitis on imaging
• active (acute) inflammation on MRI highly suggestive of sacroiliitis associated with SpA
• definite radiographic sacroiliitis according to the modified New York criteria

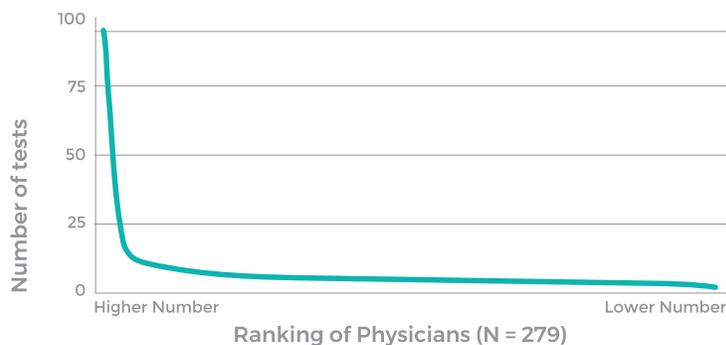
n=649 patients with back pain

Overall
Sensitivity; 82.9%, Specificity; 84.4%

Imaging Arm Alone
Sensitivity; 66.2%, Specificity; 97.3%

Clinical Arm Alone
Sensitivity; 56.6%, Specificity; 83.3%

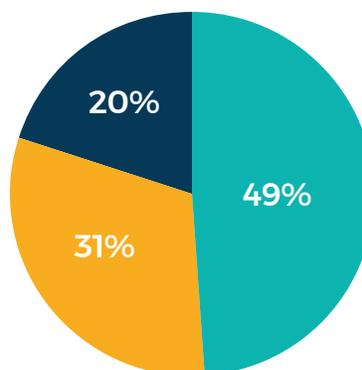
Use of HLA-B27 by Doctor



Over 33 months, from Jan 1 2015-Oct 1 2017, 1108 tests were ordered by 280 doctors.

This indicates that the majority of the tests were ordered by only a small number of doctors.

Proportion of Tests by Age



0 to 44 years old
45 to 59 years old
60 years old and over

51% of tests were ordered in patients ≥ 45 years. However it is unknown the age of onset of symptoms.

HLA-B27 should be ordered in patients with ≥ 3 months of back pain and age of onset of symptoms < 45 years when SpA is suspected.

Conclusions

1. Order HLA-B27 (tagSNP) if SpA is suspected based on the presence of low back pain for ≥ 3 months with onset < 45 years, and specific signs or symptoms consistent with SpA.