# Naval Medical Center Portsmouth
# Rheumatology Referral Guidelines

| **Diagnosis:** | **Inflammatory Back Pain** |
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| Clinic Name | Rheumatology |
| Clinic Phone Number | 757-953-2160 or 2161 |
| On Call Numbers | Duty Pager: 757-860-5702 |

## 1. Indications for Specialty Care:

- **Consider a Rheumatology referral if a patient has the following symptoms concerning for inflammatory back pain:**
  - Pain in the lower back or buttocks (alternating buttock pain) with morning stiffness > 30 minutes
  - Age <40 or < 45 y/o
  - Insidious onset of pain of greater than 6 weeks duration
  - Pain is worse with rest and improved with activity; often pain improves with NSAIDs
  - Nighttime pain that improves upon arising

## 2. Quality Consult Criteria

**When referring a patient, please include as much of the following information as possible (OK to cut and paste this into consult request)**

1. Provisional diagnosis
2. Duration of Problem
3. Prior treatments
4. Current treatments/medications
5. Diagnostic studies obtained (imaging, labs, other tests, etc.)
6. Primary reason for consult
7. Use of referral guidelines

## 3. Diagnosis Definitions

- **Spondyloarthritis (SpA)** describes a heterogeneous group of chronic inflammatory rheumatic diseases. Historically, SpA has been regarded as a family of arthritis that includes Ankylosing Spondylitis (AS); undifferentiated SpA; reactive arthritis, psoriatic arthritis; juvenile SpA; and arthritis and spondylitis associated with inflammatory bowel disease (IBD), including Crohn's disease and Ulcerative colitis. AS has been regarded as the prototype of SpA.

- All of these disorders are associated with familial clustering and human leukocyte antigen B27 positivity (HLA-B27) in a percentage of patients, but differing types of tissue inflammation and structural damage result in a variety of disease phenotypes.

- Spondyloarthritis can be divided into 2 subgroups **axial (AxSpA)** and **peripheral SpA)** according to the predominant

location of arthritis.

- In **AxSpA**, the main clinical symptom is inflammatory back pain (IBP), and patients have involvement of the sacroiliac joints (SIJ), the spine, or both, whereas patients with peripheral SpA have symptoms predominantly localized to peripheral joints; however, both may occur.

- **Axial SpA** can be further classified as AS or **non-radiographic AxSpA (nr-AxSpA).** Ankylosing spondylitis is the classic form of the disease and presents with characteristic radiographic damage consistent with sacroiliitis on plain radiographs, and non-radiographic spondyloarthritis (nr-AxSpA) presents without radiographic changes but with sacroiliac joint inflammation or sacroiliitis on magnetic resonance imaging (MRI) or computed tomography.

- Extra-articular manifestations, including inflammatory bowel disease (IBD), acute anterior uveitis/iritis, aortic insufficiency, dactylitis and enthesitis, are observed and can substantially affect the prognosis.

    - Enthesitis: The enthesis is the region of attachment of tendons and ligaments to bone; enthesitis is inflammation of the enthesis and is a classic feature of AxSpA. It manifests as pain, stiffness and tenderness of insertions usually without much swelling although swelling can be a prominent feature at the Achilles tendon. Common places affected include the Achilles tendon and the plantar fascia.
    - Dactylitis (sausage digits): This is characterized by diffuse swelling of toes or fingers.

- Note that the hallmark of AS is radiographic detection of sacroiliitis or syndesmophytes on lumbosacral spine radiographs, but MRI detection of sacroiliitis may also aid in establishing an accurate diagnosis in patients with **AxSpA**.
- **In the United States, the prevalence of AxSpA is estimated to be 0.7%, with AS and non-radiographic AxSpA each accounting for 0.35% of patients. The prevalence of IBP in US adults aged 20 to 69 years has been estimated to be 5.0% to 6.0%.**

- AS has a male to female ratio of 3.8:1. Uveitis occurs more commonly in women. The prevalence of non-radiographic AxSpA seems to be equal between men and women.

## 4. Initial Diagnosis and Management

- Chronic back pain is a common symptom of patients who present in primary care. It is important to distinguish **inflammatory back pain (IBP)** from mechanical etiologies of pain. For patients presenting with chronic back pain, it is important to distinguish inflammatory from mechanical etiologies of pain as noted by table below.

| | **Inflammatory Back Pain** | **Mechanical Back Pain** |
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| **Age of onset** | <45 years | Any age |
| **Onset** | Insidious and persisting for > 3 months | Variable |
| **Features** | Alternating buttock pain and awakening because of back pain in second half of night | Variable |
| **Effect of Physical Activity** | Improves with exercises | Improves with rest |
| **Morning stiffness** | Moderate and persisting > 30 minutes improved with activity | Mild and less than 30 minutes |
| **Inflammatory markers** | Commonly elevated | Normal |

- A detailed patient history to including duration of back pain, age at which symptoms first occurred, and family history of SpA, should be collected.

- A 5-question survey can be used to help differentiate IBP from mechanical back pain (YES or No). A positive response to 3 to 5 of these questions is indicative of IBP that should be referred to a rheumatologist for further evaluation and management.

Did your back pain and stiffness start before the age of 45?

- Yes
- No

Did your pain and stiffness develop gradually, with symptoms persisting at least three months?

- Yes
- No

Does your pain and stiffness tend to ease with physical activity and exercise?

- Yes
- No

Do you find there is no improvement in your back pain when you rest?

- Yes
- No

Do you suffer from increased back pain and discomfort when immobile during sleep, and start to feel better once up and moving?

- Yes
- No

- Those with pain for more than 3 months and with symptoms that first appeared before age 45 years should undergo a physical examination for IBP assessing for morning stiffness lasting longer than 30 minutes, pain at night or in the early morning, and improvement after exercise, as well as for the presence of peripheral manifestations such as uveitis, IBD, and psoriasis. Diagnostic testing for HLA-B27 and imaging (MRI and/or radiography) for sacroiliitis can provide additional evidence to support or rule out a diagnosis of AxSpA.

    - HLA-B27 is present in 85-95% of Caucasian patients with AS and 50-80% of non-white AS patients. In Caucasians, the prevalence of AS in HLA-B27 positive population is only about 5%. The prevalence of HLA B27 is 6-9% in healthy whites and 3% in healthy North American blacks, a HLA B27 positive individual has a 50-100 times relative risk of developing AS. **But, a positive test for HLA-B27 alone is not diagnostic for axSpA, and a negative test for HLA-B27 does not exclude the diagnosis of axSpA.**

- Patients showing clear signs of IBP or positive laboratory and radiographic test results should be referred to a rheumatologist for further evaluation. Please see proposed referral strategy.

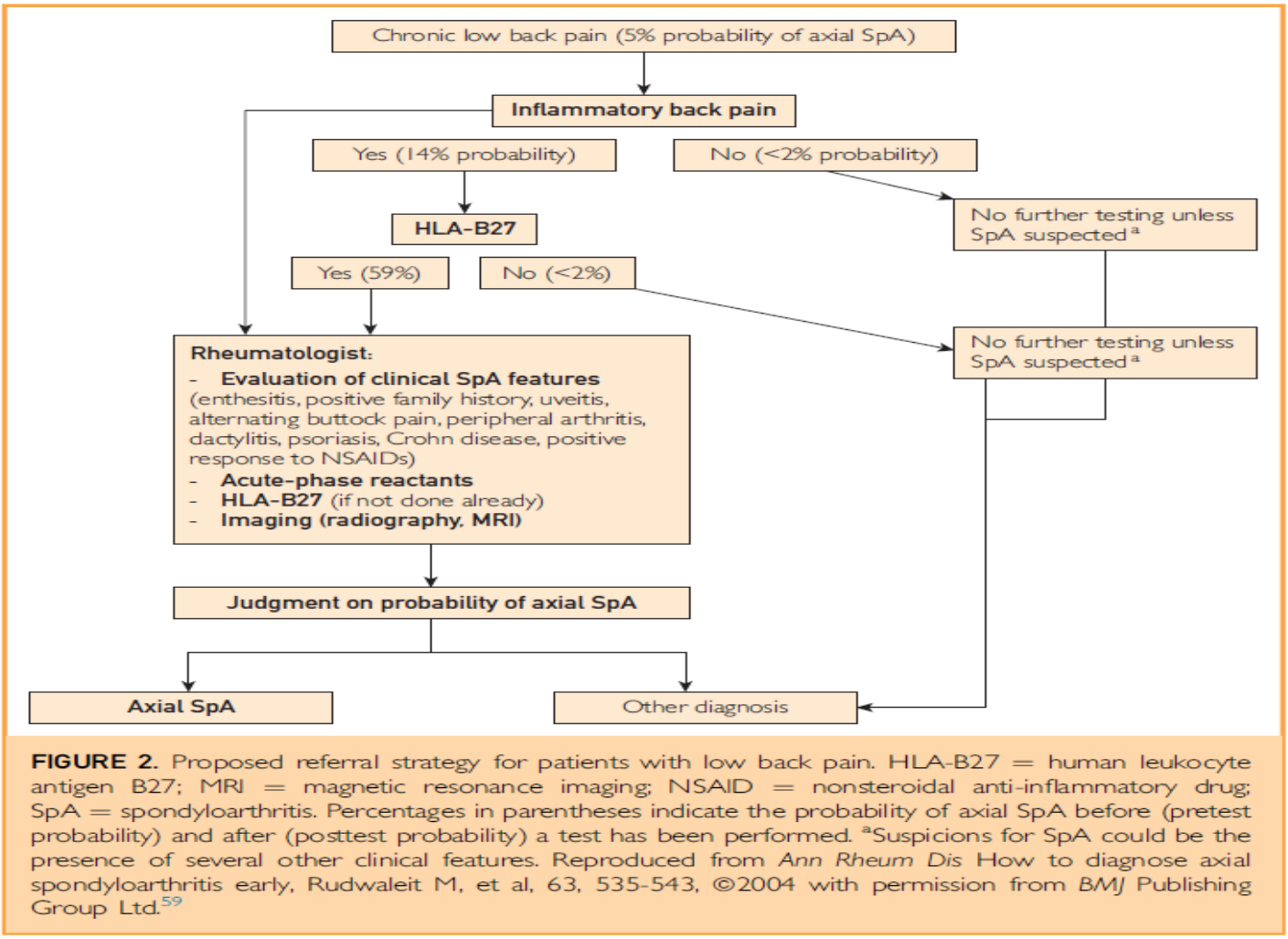


**FIGURE 2.** Proposed referral strategy for patients with low back pain. HLA-B27 = human leukocyte antigen B27; MRI = magnetic resonance imaging; NSAID = nonsteroidal anti-inflammatory drug; SpA = spondyloarthritis. Percentages in parentheses indicate the probability of axial SpA before (pretest probability) and after (posttest probability) a test has been performed. [a]Suspicions for SpA could be the presence of several other clinical features. Reproduced from *Ann Rheum Dis* How to diagnose axial spondyloarthritis early, Rudwaleit M, et al, 63, 535-543, ©2004 with permission from *BMJ* Publishing Group Ltd.[59]

## 5. Ongoing Management and Objectives

- Recommended initial treatment for AxSpA is continuous nonsteroidal anti-inflammatory drug therapy for at least 3 months unless contraindicated.

- Other therapies include:
  - Analgesics such as Tylenol and Lidoderm patches
  - Physical therapy with joint directed exercises to help promote spinal extension and mobility
  - Corticosteroids injections into joint or tendon sheath for localized swelling.

- If a patient has SpA and needs further therapy to include tumor necrosis factor inhibitor this will be determined and initiated by a Rheumatologist.

## 7. Criteria for Return to Primary Care

- Management of back pain in the absence of inflammatory arthritis or other rheumatologic disease.

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| Date Adopted or Last Reviewed: | 01 Feb 2018 | By | CDR Shauna O'Sullivan<br>LCDR Jeffrey Eickhoff<br>LCDR Terrence Kilfoil<br>LCDR Jason Weiner |
| Referral Guidelines require review every three years. | | | |

## 6. Resources/References


- Taurog, J et al. Ankylosing Spondylitis and Axial Spondyloarthritis. New England Journal of Medicine 2016; 374:2563-74.
- Strand V, et al. Evaluation and Management of the Patient with Suspected Inflammatory Spine Disease 2017; 92(4): 555-564.
- American College of Rheumatology: https://www.rheumatology.org/I-Am-A/Patient-Caregiver/Diseases-Conditions/Spondyloarthritis
- American College of Rheumatology Clinical Practical Guideline: https://www.rheumatology.org/Practice-Quality/Clinical-Support/Clinical-Practice-Guidelines/Axial-Spondyloarthritis
- Spondylitis Association of America: https://www.spondylitis.org/
- Assessment of Spondyloarthritis International Society (ASAS): https://www.asas-group.org/
- Arthritis Foundation: https://www.arthritis.org/about-arthritis/types/spondyloarthritis/
- UpToDate: https://www.uptodate.com/contents/clinical-manifestations-of-axial-spondyloarthritis-ankylosing-spondylitis-and-nonradiographic-axial-spondyloarthritis-in-adults
- NEJM: http://www.nejm.org/doi/pdf/10.1056/NEJMra1406182
- Evaluation and Management of the patient with Suspected Inflammatory Spine Disease: https://www.sciencedirect.com/science/article/pii/S0025619616308266