Managing axial spondyloarthritis
This is the lay version of the EULAR recommendations for the management of people with axial spondyloarthritis. The original publication can be downloaded from the EULAR website: www.eular.org.


Introduction
EULAR recommendations give advice to doctors, nurses and patients about the best way to treat and manage diseases. EULAR has updated its recommendations on the management of people with axial spondyloarthritis (often shortened to axSpA). Axial spondyloarthritis is an umbrella term that includes different forms of the disease. One of the most important distinctions is whether there is inflammation or bone changes where the spine meets the pelvis (the sacroiliac joint). If these changes are visible on a radiograph the disease is called ankylosing spondylitis (AS) or radiographic axSpA. When there are no changes in this area it is called non-radiographic axSpA. Some people may move from having non-radiographic to radiographic disease.

Doctors, health professionals and patients worked together to develop these recommendations. Including patients in the team ensured that the patient point of view was integrated in the recommendations. The authors looked at the evidence on drug interventions in axial spondyloarthritis.

What do we already know?
Axial spondyloarthritis is a condition where the spine becomes stiff and painful due to the body’s immune system attacking its own tissues and causing inflammation. The vertebrae in the spine may grow and fuse together due to extra bone formation. The main symptom is chronic back pain, along with stiffness that gets better with exercise. Other symptoms include inflammation in the joints (arthritis) and entheses – the junction between the muscle and the bone. When these are inflamed it is called enthesitis. People with axial spondyloarthritis might also have acute inflammation of the eye (called anterior uveitis), a skin condition called psoriasis, or inflammatory bowel disease. Previous EULAR recommendations for axial spondyloarthritis were written in 2009. These have been updated to include information on new treatments.

These recommendations include information on several different types of treatments that are used to manage axial spondyloarthritis. The drugs can be put into the following groups.

- Non-steroidal anti-inflammatory drugs (also called NSAIDs): these drugs relieve symptoms of pain and stiffness.
- Disease modifying anti-rheumatic drugs (often shortened to DMARDs) aim to change the course of the disease by reducing inflammation. They can also help to improve function and stop the progression of joint damage. This group includes biologic DMARDs (also called bDMARDs, biologics or biologicals). A biologic usually works by blocking one specific molecule. By doing this, it reduces inflammation.

What do the recommendations say?
Overall, there are five overarching principles and thirteen recommendations. The overarching principles say that axial spondyloarthritis is a potentially severe disease that can have different symptoms and affect different parts of the body in different people. It usually requires multidisciplinary management coordinated by a rheumatologist. The primary goal of treating people with axial spondyloarthritis is to maximise their quality of life by controlling symptoms and inflammation, preventing joint damage, and preserving a person’s normal function and participation in social activities. To achieve this, people might need a combination of
drugs and non-drug treatments. Any decisions about treatment should be based on a shared decision between the patient and the rheumatologist, and those decisions should take into account the high individual, medical and societal costs that are associated with axial spondyloarthritis.

Each recommendation is based on available scientific evidence or expert opinion. The more stars a recommendation has the stronger the evidence is and the more important it is that you and your doctor follow it.

One star (*) means it is has limited evidence.

Two stars (**) means it has some evidence.

Three stars (***) means it has quite a lot of evidence.

Four stars (****) means it is supported by a lot of evidence.

- **The treatment of axial spondyloarthritis should be tailored to each person’s current signs and symptoms and individual characteristics.***
  Because axial spondyloarthritis can affect different people in different ways, it is really important that the treatment you receive is tailored to you. Your doctor may consider where your disease affects you – whether it is in your back, or other joints, and if it affects any other parts of your body such as your eyes. The doctor will also check to see whether you have any other diseases (comorbidities) or psychological or social factors that might have an impact on which treatment is right for you.

- **Disease monitoring of people with axial spondyloarthritis should include patient-reported outcomes, clinical findings, laboratory tests and imaging. How often you are monitored will be decided on an individual basis depending on your symptoms, severity and treatment.***
  Your disease should be monitored using a combination of questionnaires, clinical examination and blood tests or imaging such as radiographs or MRI (magnetic resonance imaging). Radiographs should not be taken more than once every 2 years. How often other monitoring is done will depend on your personal circumstances.

- **You should have a target for your treatment.***
  Your target should be determined in a shared decision process between you and your rheumatologist. It should take all your personal circumstances into account. Once your treatment starts, you should be regularly monitored to see if the target is reached. Not everybody’s target will be the same.

- **You should receive education*** about your disease and be encouraged to exercise on a regular basis*** and stop smoking;*** physical therapy**** should be considered.
  Education can help you to understand your disease. Staying fit and healthy will not do any harm, and may offer benefits. Taking exercise at home can help to reduce the symptoms of your disease. There is evidence that smoking can contribute to the underlying inflammation and disease.

- **If you suffer from pain and stiffness you should try an NSAID as your first drug. If the NSAID works, and if you get symptoms when you stop taking them, then you can use them continuously.***
  Non-steroidal anti-inflammatory drugs (often shortened to NSAIDs) are a medicine that can reduce pain and stiffness. If your symptoms reappear when you stop taking your NSAID, then your doctor may recommend that you take them continuously. If you do not have symptoms then your doctor may suggest that you stop taking the NSAID in order to protect you from possible side effects.
• Painkillers such as paracetamol and opioid-(like) drugs, might be considered if you still have pain after previous treatments have not worked, or if you cannot take them for some reason.* Painkillers might be useful, but they are not usually prescribed unless other treatments have not worked for you. Other medicines to treat the underlying axial spondyloarthritis should be tried first.

• Steroid injections*** may be considered, but people with axial disease should not receive long-term treatment with systemic steroids.* Glucocorticoids are a type of steroid medicine. You may be given an injection at the site of pain, or you may be prescribed a short course of high-dose steroids to take as a pill. However, steroids should not be used for long periods of time.

• If your disease is only in your back, you should normally not be treated with csDMARDs; sulfasalazine may be considered if you also have peripheral arthritis.**** If your disease only affects your back (called axial disease), then you should normally not be treated with conventional systemic disease-modifying antirheumatic drugs (often shortened to csDMARDs). This is because csDMARDs such as methotrexate, sulfasalazine or leflunomide do not work well to relieve symptoms in the back. If your disease also affects your joints such as wrists, elbows, ankles or knees (called peripheral arthritis), then sulfasalazine might be an option.

• bDMARDs should be considered in people with persistently high disease activity despite conventional treatments; current practice is to start with a TNF inhibitor.**** Biologic disease-modifying antirheumatic drugs (often shortened to bDMARDs) are a treatment option for people who do not achieve their targets with other treatments. There are different types of bDMARDs. The most common ones to try first in people with axial spondyloarthritis are the TNF inhibitors. TNF stands for tumour necrosis factor, which is a protein involved in causing inflammation. Blocking inflammation can help to relieve your symptoms, as well as stopping the underlying disease and joint damage.

• If TNF inhibitors do not work for you, your doctor may consider switching you to a different TNF inhibitor*** or to a different sort of bDMARD called an IL-17 inhibitor.**** If a first TNF inhibitor does not work for you, then you can try a different one, or you might be given a bDMARD that blocks a different protein called IL-17 (short for interleukin 17). You should take each drug for at least 3 months before deciding (with your doctor) whether it is working or not.

• If a you achieve sustained remission, tapering of your bDMARD can be considered.*** If your treatment has worked and you have achieved remission, then it may also be possible to lower the dose of your bDMARD. This might be done by dropping the dose, or by taking the medicine less often. It is very important that you do not change your dose yourself without talking to your doctor as this will need to be done slowly.

• Total hip replacement should be considered in people of all ages with resistant pain or disability if they have evidence of joint damage on a radiograph; spinal surgery in specialised centres may be considered in patients with severe disabling deformity.** People of any age should be considered for hip replacement if their radiographs show that there is damage and if they have pain and disability that cannot be managed with drugs. If you have severe spinal deformities caused by your axial spondyloarthritis then you may be referred to a specialist spinal surgeon to talk about possible surgery.
If there is a significant change in your disease then your doctor should look for causes other than inflammation.*

Symptoms in people with axial spondyloarthritis are mostly caused by inflammation, but sometimes there might in fact be a spinal fracture. If your disease suddenly gets much worse, or if it does not get any better with treatment, then your doctor may look for other causes using imaging techniques. This could be with a CT scan (computed tomography), which builds a 3-dimensional picture of your spine, or with MRI (magnetic resonance imaging).

**Summary**

Overall, the recommendations highlight that there are many different treatments for people with axial spondyloarthritis. If you have axial spondyloarthritis these recommendations will give you some guidance on what to expect from your doctor and what treatments you may be offered.

If you have any questions or concerns about your disease or your medication, you should speak to a health professional involved in your care.