Sheffield Early Inflammatory Arthritis professional Guidelines for SAP

Inflammatory arthritis presenting for the first time, is typically characterised by:

- Joint swelling which is visible to another person
- A sudden change in joint function
- Marked stiffness first thing in the morning (at least 30 mins)
- Benefit from the use of NSAIDs

Inflammatory arthritis can start in several different ways including:

- Intermittent (palindromic) – joint swelling can be present for a few days before resolving, and returning a few weeks later in the same or different joints
- Migratory – it moves around different joints
- Additive – it starts in one or more joints and then spreads to involve others
- Explosive – it starts in lots of joints all together within a short space of time

The joints that are involved help to define which type of arthritis is likely to be present:

- Small joints of the hands (sparing DIPs), wrists and feet with a symmetrical pattern suggests possible RA
- Big joints – knees, hips, ankle, spine with an asymmetrical pattern is more likely to be a sero-negative inflammatory arthritis, with associated symptoms of psoriasis, inflammatory bowel disease & eye inflammation

For all new onset inflammatory arthritis, early investigation and treatment makes a massive difference to long terms outcomes. There is the concept of a **'window of opportunity'** which lasts for around 12 weeks after the patient first develops symptoms, within which their disease responds much better to treatment than if it is allowed to become persistent.

Treatment with disease modifying medication (DMARDS such as methotrexate) within the first 12 weeks reduces the chances of patients sustaining irreversible joint damage, and the need for long term high cost biologic medication.

Then Rheumatoid Arthritis

- 3x more common in women, peak age of onset middle age
- Typically hands, wrists, feet, with big joints later in presentation
- There may be an intermittent start to symptoms
- Main risk factors – smoking history within last 10 years & family history of RA

If you suspect possible RA:

- Take a history, and examine joints
    - Is there visible swelling, which is tender, soft and compressible?
    - Is fist formation reduced?
    - Is MCP / MTP Squeeze tender?
- Check blood tests – including CRP, RF & ANA, routine tests (see tests section for guidance on interpreting results), and review results before deciding to refer.
- An xray is only useful if symptoms present >6 months – a normal xray should offer no reassurance that inflammatory arthritis isn't present
- Refer to the early arthritis clinic (using the standard MSK proforma, but stating EAC at top of referral) **if at least 2 out of 3 of the following are abnormal**:
    - Blood tests (CRP or RF elevated (>30 for RF, readings below this are rarely significant)
    - History strongly suggestive of inflammatory arthritis
    - Physical examination suggests synovitis (soft swollen joints / significant + squeeze test)
- The referral will be passed on for triage to one of the consultants running the Early Arthritis clinic. The wait for this clinic is typically around 2 weeks for patients accepted at triage.
- Anti-CCP antibody testing will be added onto the sample already in the lab at the point of triage, so the result is available by the time the patient is seen (which is why it really important to do the antibody tests above)
- NSAIDs can be used for symptomatic benefit but please **don't start steroids** as this removes all clinical signs – one of the most important aspects of clinical diagnosis

Psoriatic Arthritis

- Usually (but not always) associated with a prior history of psoriasis
- Nail changes – pitting and onycholysis increase the likelihood of inflammatory arthritis in patients with psoriasis
- Will usually result in joint swelling and may also cause inflammation at enthesial sites (where tendons joins bones) – such as the Achilles, around elbows, knees and in the spine
- There are several different patterns of joint involvement including:
    - Asymmetrical large joint arthritis (with definite swelling)
    - Scattered asymmetrical small joint inflammation, including dactylitis – (sausage digits) & DIP joint swelling often associated with nail changes
    - Spinal inflammation
- There is usually a strong inflammatory pattern with symptoms much worse in the morning and after inactivity
- RF will be negative, and inflammatory markers often less elevated than in RA

If you suspect Psoriatic Arthritis:

- Take a history and examine joints
    - Is there evidence of inflammation in and around joints?
    - Are there any nail changes?
    - Tender achilles / other tendon insertion sites?
    - Do NSAIDs help?
- Check bloods, including CRP and RF & review results
- Refer to Rheumatology using MSK proforma – if lots of inflamed joints, mark as urgent and patient will be considered for EAC
- NSAIDs are a good option whilst patient waiting to be seen – again please do not start steroids

Large Joint Seronegative Arthritis

- Usually obvious abrupt atraumatic large joint pain and swelling
- May be reactive following an infection – typically within 2-3 months of infection with invasive bowel bugs (bloody diarrhoea) such as campylobacter, salmonella, shigella, or GU bugs – chlamydia or gonococcus – so cover this in your history taking
- Can associate with inflammatory bowel disease – UC and Crohns
- Both reactive and inflammatory bowel disease related also associated with inflammatory spinal symptoms
- May be a crystal arthritis – gout (usually a history of previous big toe swelling), or pseudogout (usually on a background of osteoarthritis)

If you suspect Large Joint Inflammatory Arthritis:

- Take a history and examine joints – looking for diagnostic clues as above
- Check bloods including CRP and routine tests
- Start NSAIDs with PPI cover unless contraindicated
- Refer to Rheumatology – we will try to see the patient urgently where possible

Viral Inflammatory Arthritis

- Several viruses can cause a severe but self-limiting typically small joint inflammatory arthritis
- The clue is often that patients feel ill for a week or so prior to the onset of joint symptoms, which usually isn't the case with primary inflammatory arthritis
- Parvovirus is the most common of these – adults usually don't get the typical slapped cheek rash seen in children
- The arthritis causes definite significant joint swelling and can last 2-4 weeks before resolving
- Parvovirus serology can be helpful – if IgM positive – indicates acute infection, IgG – previous infection. If acute infection – Rheumatology referral may not be needed. Management is supportive with NSAIDs. RF and ANA can be false positive in this situation