Rheumatoid Arthritis

Disclaimer

See also:

- Ankylosing Spondylitis
- Disease Modifying Anti-rheumatic Drugs (DMARDs)
- Inflammatory Arthritis
- Psoriatic Arthritis

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Red Flags

- Unexplained illness or fever when taking biologic or immunosuppressant medications
- Fever with acutely painful, hot, swollen joint(s)

Background – About Rheumatoid Arthritis

- Rheumatoid arthritis (RA):
  - is a chronic inflammatory condition.
  - affects approximately 1.9% of the Australian population.
  - primarily affects the small joints of the hands and feet.
- Most patients present in their 50s and rates are slightly higher in women than men.
- The main pathological feature is inflamed synovium (synovitis) which over time becomes hyperplastic and infiltrated with mononuclear blood cells which release inflammatory cytokines.
- RA is a clinical diagnosis. Laboratory tests and imaging help to confirm the diagnosis, monitor disease progress and provide prognostic information.
- The presence of rheumatoid factor (RF) and anti-cyclic citrullinated peptide (anti-CCP) can help support a diagnosis of RA, but there are some important limitations to their use:
  - Some patients with RA may have negative RF and anti-CCP, at least early in the disease.
  - While these markers may be positive years before a patient goes on to develop RA, most patients with positive RF and anti-CCP do not go on to develop RA.
  - There is no role for prophylactic treatment of patients with positive RF or anti-CCP but no clinical evidence of RA.
  - Rheumatoid factor and anti-CCP may be positive in other forms of inflammatory arthritis (e.g. psoriatic arthritis).
- Without appropriate treatment, RA can cause progressive joint damage resulting in loss of function, decreased quality of life and mortality.
- Early referral of suspected RA to a rheumatologist for confirmation of the diagnosis, and initiation of disease-modifying antirheumatic drugs (DMARDs) is essential to prevent joint damage and disability. Undifferentiated polyarthritis of less than 6 weeks duration will often subside spontaneously, however investigation, treatment and referral for undifferentiated polyarthritis should not be delayed.

Assessment

1. Take a history:
   - **Symptoms** – including onset and duration
     - **Symptoms**
       - Bilateral, symmetrical pain and swelling of the small joints of the hands and feet (peripheral polyarthritis)
       - Morning stiffness lasting > 1 hour
- **Severe rest pain at night**
- **Symptoms of extra-articular clinical manifestations:**
  - Chest pain in pleuritis or pericarditis
  - Shortness of breath and decreased exercise tolerance in interstitial lung disease
  - Eye symptoms in *iritis* or *scleritis*  

➢ Ask the patient to take photographs of their swollen joints to help with diagnosis and monitoring.
➢ Impact of symptoms on daily activities
➢ Current treatment including all medications
➢ Previous management including course of treatment and outcome

2. Perform examination. Look for:

  ➢ **Signs of inflammatory arthritis**

  **Signs of inflammatory arthritis**
  - **Synovitis** – clinically appears as soft tissue swelling and tenderness around joints, sometimes with heat
  - **Functional limitation** – loss of range of motion and strength in affected joint
  - **Number of affected joints** (mono, oligo- or polyarticular > 4 joints)
  - **Distribution**
  - **Symmetry**
  - **Deformity** – seen later and generally more rarely now due to availability of DMARDs. Includes:
    - Swan neck deformity – distal interphalangeal (DIP) hyper-flexion with proximal interphalangeal (PIP) hyper-extension
    - Boutinieres’s deformity – PIP flexion with DIP hyper-extension
    - Ulnar deviation due to inflammation of the metacarpophalangeal joints causing dislocation of the fingers

➢ extra articular features of RA:
  - Rheumatoid nodules over the extensor surfaces of tendons
  - Vasculitis skin involvement (rare)

➢ Use the **squeeze test**.

**Squeeze test**
This is a screening test for inflammatory arthritis. If gentle squeezing together of the 2nd and 4th metacarpophalangeal (MCP) or the metatarsophalangeal (MTP) joints elicits tenderness in a symmetrical distribution, the test is positive and suggests inflammatory arthritis.

*See Squeeze Test for MCP Joints* (video, 8 seconds).

3. Arrange investigations:
  ➢ FBC, ESR, CRP, UEC, LFT.
  ➢ Consider rheumatoid factor (RF), and anticyclic citrullinated peptide antibody (anti-CCP), but be aware of their **limitations**.
**Limitations of RF and anti-CCP**

The presence of rheumatoid factor (RF) and anti-cyclic citrullinated peptide (anti-CCP) can help support a diagnosis of RA, but there are some important limitations to their use:

- Some patients with RA may have negative RF and anti-CCP, at least early in the disease.
- While these markers may be positive years before a patient goes on to develop RA, most patients with positive RF and anti-CCP do not go on to develop RA.
- There is no role for prophylactic treatment of patients with positive RF or anti-CCP but no clinical evidence of RA.
- Rheumatoid factor and anti-CCP may be positive in other forms of inflammatory arthritis (e.g. psoriatic arthritis).

➢ Consider X-rays of hands and feet if polyarthritis beyond 12 weeks, but can be left to the discretion of a rheumatologist.
➢ Consider investigations to exclude differential diagnoses, see [Inflammatory Arthritis](#).

**Management**

1. Refer for **immediate rheumatology assessment** if:
   ➢ fever and an acutely, hot, swollen joint – for exclusion of septic arthritis,
   ➢ fever or unexplained illness in a patient on biologic or immunosuppressant medications.

2. Prescribe anti-inflammatory medications for symptom relief:
   ➢ Give **NSAIDs** as first-line management.

**Nonsteroidal anti-inflammatory drugs (NSAIDs)**

- If co-prescribed angiotensin-converting-enzyme (ACE) inhibitors and diuretics, use with caution and check renal function within 10 to 14 days.
- Discuss harm versus benefits and the recommendation against long-term use in chronic pain.
- If higher risk of gastrointestinal bleeding, consider prescribing a gastro-protective drug.
- Be aware that multiple side-effects may occur in the elderly and those with asthma, gastrointestinal, cardiac, or renal disease.

**Contraindications:**

- Gastrointestinal (GI) ulcers
- Renal impairment
- Other nephrotoxic medications
- Bleeding risk
- Aspirin-sensitive asthma
- Warfarin is a relative contraindication

**Dosage:**

- Ibuprofen 200 mg to 400 mg every 6 to 8 hours
- Naproxen 250 mg to 500 mg every 12 hours
- Celecoxib 200 mg daily

**Maximum dosage:**

- Ibuprofen maximum 1600 mg per day
- Naproxen maximum 1000 mg per day
• **Celecoxib maximum 400 mg per day**

➢ If very severe or refractory symptoms for which prednisolone is considered necessary, consult with a [rheumatologist](#), as this implies a more severe disease. If possible and the patient consents, provide photographs of the affected joints:

• Prednisolone use complicates starting disease-modifying drugs (DMARDs).
• Typical starting dose is 5 to 10 mg daily prednisolone. Advise the patient to remain on that dose until assessed.
• Do not use higher doses due to increased risk of toxicity and the risk of creating unrealistic expectations in the patient. High doses can result in rapid, complete pain relief and euphoria, which in a chronic condition is unnecessary, unwise and not sustainable in the long term.

➢ Additional analgesia may be required. See also Medication Options for Acute Pain.
➢ Be aware that using NSAIDs, analgesics and steroids should not be considered as sufficient treatment for RA and their use should not delay initial referral or review in the case of established RA.

3. Refer for [urgent or routine rheumatology referral](#) if

➢ rheumatoid arthritis suspected.
➢ persistent joint inflammation at 6 weeks.
➢ symptoms of inflammatory arthritis with positive anti-CCP.
➢ known rheumatoid arthritis, and not under the care of a rheumatologist.

4. If the patient is pregnant or planning a pregnancy, arrange [urgent or routine rheumatology referral](#). If unplanned pregnancy while taking DMARDs or biologics, seek urgent [rheumatology advice](#).

5. Arrange referral to allied health services for:

➢ [Occupational therapy assessment](#)
➢ [Physiotherapy assessment](#)
➢ [Exercise physiology](#) for stamina and strength work, including low impact aerobic activities e.g. t’ai chi – important for pain management

Consider a [chronic disease management plan](#) to facilitate allied health referrals.

6. If the patient is taking methotrexate, see [Methotrexate Shared Care](#).

7. Arrange follow-up appointment to monitor response to treatment. Advise patient to take a smartphone picture of swollen joints to help monitoring.

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**Referral**

• Refer for [immediate rheumatology assessment](#) if:
  o fever and an acutely, hot, swollen joint refer to the emergency department for exclusion of septic arthritis.
- fever or unexplained illness in a patient on biologic or immunosuppressant medications.

- Refer for urgent or routine rheumatology referral if:
  - rheumatoid arthritis suspected
  - persistent joint inflammation at 6 weeks
  - symptoms of inflammatory arthritis with positive anti-CCP
  - known rheumatoid arthritis, and not under the care of a rheumatologist.

- If very severe or refractory symptoms for which prednisolone is considered necessary, consult with a rheumatologist.

- If a patient with rheumatoid arthritis is pregnant or planning pregnancy, arrange urgent or routine rheumatology referral. If unplanned pregnancy while taking DMARDs or biologics, seek urgent rheumatology advice.

- Arrange referral to allied health services for:
  - Occupational therapy assessment
  - Physiotherapy assessment
  - Exercise physiology for stamina and strength work – important for pain management.

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### Information

#### For health professionals

**Further information**

RACGP:

- Clinical Guideline for the Diagnosis and Management of Early Rheumatoid Arthritis
- Early Diagnosis and Management of Rheumatoid Arthritis [algorithm]

#### For patients

Patient – Rheumatoid Arthritis

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**Disclaimer**

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