Red Flags

- Neurological features
- Past history of malignancy

Background – About Fibromyalgia

Fibromyalgia is a common but poorly understood syndrome characterised by chronic widespread body pain almost always accompanied by co-morbid symptoms, including stiffness, poor sleep, fatigue, and memory and mood difficulties, in the absence of clinical, biochemical or radiological evidence of inflammation.

- It is a common condition worldwide in all ethnic and social groups. It affects approximately 2% of the population with peak prevalence in middle age women.
- Age of onset is typically between 20 and 60 years.
- No proven cause or pathology, but it is widely agreed that primary pathology is in the central nervous system and involves pain and/or sensory amplification.
- Patients with fibromyalgia experience pain differently from the general population because of dysfunctional pain processing in the central nervous system.
- Some authorities group fibromyalgia with other “central sensitisation” syndromes including:
  - Chronic fatigue syndrome
  - Irritable bowel syndrome
  - Tension headaches
  - Temporomandibular disorders
  - Interstitial cystitis
  - Pelvic pain
  - Vulvodynia

- Fibromyalgia often co-exists with other rheumatological conditions such as rheumatoid arthritis, systemic lupus erythematos and osteoarthritis where pain may drive central sensitisation. The presence of one of these conditions does not exclude a co-existing diagnosis of fibromyalgia.
- Depression and other psychological co-morbidities are common.

Assessment

Make a clinical diagnosis – this can be reassuring for the patient, but is often made over time. There is no rush to exclude every possible cause of chronic pain. Consider using a [clinical tool](#) to assess against diagnostic criteria.

1. Take a thorough history, looking for widespread pain over time:
   - Look for **features that suggest fibromyalgia**.
**Features that suggest fibromyalgia**

Including:

- Aged 20 to 60 years
- Poor and/or unrefreshing sleep
- Widespread paraesthesiae or pain
- Cognitive impairment, or "fibro fog"
- Irritable bowel syndrome or bladder symptoms
- Migraine or headaches
- Symptoms or signs of sensory sensitivity, e.g. allodynia, undue sensitivity to touch, noises, or odours
- Other chronic illnesses
- History of other central sensitisation syndromes

**Central sensitisation syndromes**

- Chronic fatigue syndrome
- Irritable bowel syndrome
- Tension headaches
- Temporomandibular disorders
- Interstitial cystitis
- Pelvic pain
- Vulvodynia

- Lifetime history of multiple other episodes of chronic pain
- Family history of fibromyalgia

➢ Consider using a clinical tool to assess against diagnostic criteria.

2. Ask about factors that could suggest an alternative diagnosis, e.g. a past history of malignancy or presence of focal neurological features.

3. Perform examination – usually normal with no evidence of joint or muscle inflammation and no neurological deficits.

➢ There may be tender points at specific soft tissue locations. However tender points are no longer a diagnostic criteria for fibromyalgia.

**Specific soft tissue locations**

These include:

- Lateral epicondyle of the elbows
- Trochanteric regions
- Upper outer buttock
- Anterior chest
- Muscle attachments to upper medial border of scapula

➢ Fibromyalgic patients may have increased pain responses to relatively weak stimuli.
4. Distinguish between *inflammatory and non-inflammatory disease*.

**Inflammatory and non-inflammatory disease.**
• In patients with joint or musculoskeletal pain, distinguishing between inflammatory and non-inflammatory disease is difficult

• Consider fibromyalgia when a patient presents with possible *inflammatory arthritis*, but both physical examination and laboratory results show no evidence of inflammation:
  o Patients presenting with pain and stiffness are more likely to have fibromyalgia than inflammatory arthritis.
  o Neither degree of pain, nor degree and duration of morning stiffness alone can distinguish inflammatory from non-inflammatory disease.

• Keep in mind that fibromyalgia can co-exist with other painful conditions. Although there is no evidence that fibromyalgia is an autoimmune condition, it is more common in patients with autoimmune rheumatological diseases. It is also more common in patients with non-autoimmune chronic pain conditions such as osteoarthritis.

5. Screen for *mood disorders* (depression, anxiety) or sleep conditions (obstructive sleep apnoea, restless legs syndrome), and treat if these are present. Mood disorders often coexist with fibromyalgia.

**Mood disorders**
At least one third of patients with fibromyalgia have a mood disorder at the time of diagnosis, and this should be treated.

6. Arrange investigations but be careful not to *over-investigate*. There is often significant pressure from the patient and their relatives:

**Over-investigation**
• As there is no diagnostic test, keep testing to a minimum.
• Do not try to exclude every potential cause of pain and fatigue.

➢ Fibromyalgia does not cause any abnormalities in blood tests or imaging. Any tests are to exclude other conditions.

➢ When interpreting results, especially imaging, remember that changes may be incidental to fibromyalgia and not the cause of the symptoms

➢ *Suggested screening tests*
  • FBE – anaemia
  • Iron studies – iron deficiency
  • Thyroid function tests (TFT) – hypothyroidism
  • Calcium – hypercalcaemia
  • Creatinine kinase (CK) – myositis
  • CRP – there can be a slight elevation (15 to 30 mg/L) with increased BMI and in the elderly
  • Erythrocyte sedimentation rate (ESR)
  • Vitamin D, if risk factors for vitamin D deficiency
Management

Most patients can be managed in primary care.

1. A multidisciplinary approach is often required, with the general practitioner taking a central role:
   - Consider a GP Care Plan and Team Care Arrangement.
   - Advise regular supportive reviews, without encouraging dependency.

2. Make the diagnosis and provide education and advice. Explain that fibromyalgia is now considered a pain processing problem in the brain, rather than a musculo-skeletal condition.

   **Education**
   - Patient education and access to information is very important.
   - Review the role of stress and mood disturbances in fibromyalgia:
     - Encourage the patient to learn simple relaxation techniques and to consider formal stress reduction programmes.
     - Emphasise self-management and coping mechanisms.
   - Educate the patient regarding good sleep hygiene and the role of sleep disorders.
   - Family, carers, and colleagues also need access to education and information.

3. Advise patient about psychosocial and lifestyle modifications with an emphasis on pacing.

   **Psychosocial and lifestyle modifications**
   - Discuss pacing. See also ME/CFS and Fibromyalgia Self-help – Pacing: What it is and How to do it.

   **Pacing**
   The process of:
   - defining personal limits.
   - adapting lifestyle to fit these limits.
   - gradually expanding limits.

   - Review the role of stress and mood disturbances in fibromyalgia.
     - Encourage the patient to learn simple relaxation techniques and consider referral to psychology for formal cognitive behavioural therapy (CBT), stress-reduction, and pain management and coping programmes.
     - Emphasise self-management and coping mechanisms.
   - Educate the patient about good sleep hygiene and the role of sleep disorders.

4. Prescribe graded exercise therapy for all patients as this is the mainstay of treatment:
   - Exercise, especially aerobic and strengthening exercise – refer for a tailored, graded exercise programme e.g., with a physiotherapist or an exercise physiologist. Some patients may benefit from community groups.

   **Exercise**
• **Explain the importance of exercise to improve pain, wellbeing, and physical function.**
  
  • Advise the patient to:
    
    o *start low and go slow.*
    
    o *be aware of the potential for exercise to cause a flare-up of the condition.*
    
    o *anticipate some pain (reassure the patient and provide analgesics, if necessary).*

  ➢ Community-based physical therapies such as T’ai Chi, pilates, yoga, acupuncture, and massage.
  ➢ Heated pool treatment, with or without exercise.

**Occupational therapy**

*Support with:*

• independence in activities of daily living.
• home safety and equipment.
• cognitive strategies (if cognitive impairment or depression).
• education, self-management, coping strategies e.g., fatigue management, stress management, meaningful activity.

Refer to occupational therapist.

5. Address any related mood disorder e.g., anxiety or depression. Consider referring to a psychologist via a Mental Health Treatment Plan (MHTP) to help with pain management and symptoms such as sleep disturbance.

6. Consider medications:

  ➢ Treatment is not universally effective. Advise the patient that the aim is to decrease pain, but no medication is likely to abolish it.
  
  ➢ Always start with a low dose and titrate up slowly. Patients with fibromyalgia are usually more susceptible to medication side-effects.
  
  ➢ Use paracetamol as first-line for analgesia.
  
  ➢ Consider NSAIDs for a 3 to 4 week trial. However, only a subgroup respond.
  
  ➢ Corticosteroids and strong opioids are not recommended.
  
  ➢ There is no current evidence of benefit from medical cannabis.
  
  ➢ Consider **tricyclic antidepressants (TCA)** e.g., nortriptyline, amitriptyline.

**Tricyclic antidepressants (TCAs)**

• *Begin with a very low dose (e.g., amitriptyline 5 to 10 mg) one to three hours before bed (to reduce daytime sedation) and increase by 5 to 10 mg every two weeks:*

  o A dose of 20 to 30 mg is adequate in many patients, with a usual maximum dose of 75 mg. Consider splitting higher doses into two doses a day.
  
  o The 10 mg tablets are film coated, so for 5 mg increments, a tablet splitter is recommended.

  • There is a wide inter-individual metabolism, response, and tolerability.
  
  • Nortriptyline is less sedating than amitriptyline.

  ➢ If there is no benefit from TCA trial of 2 months, consider:

  • **Anticonvulsants**
- **Pregabalin** – start at a low dose (e.g., 25 mg at night) and gradually increase as tolerated.
- **Gabapentin** is not PBS-subsidised for general practitioners. It can be started on private prescription or by a specialist. Start at a low dose (e.g., 100 mg at night) and can be increased up to 2400 mg a day.

**Other antidepressants**
- **Fluoxetine** – trials have shown mixed results
- **Citalopram** – small trials have shown mixed results.
- **Venlafaxine (SNRI)** – limited data suggests possible benefit in some patients with fibromyalgia. (PBS-listed for concomitant depression)
- **Duloxetine (Cymbalta)** – mixed evidence for benefits.
- **Agomelatine (Valdoxan)** – experience with its use is limited and there are few studies specific for its use in fibromyalgia. It may help with associated sleep disorders, and is thought to be as effective as other antidepressants but with fewer side-effects.
- If the patient is unresponsive to monotherapy, consider using combination drug therapy rather than switching to or adding analgesics or continuing monotherapy alone e.g., low dose SSRI in the morning and a tricyclic antidepressant in the evening.
  - For example, in a single randomised trial over 6 weeks, treatment with a combination of 20 mg fluoxetine in the morning and 25 mg amitriptyline in the evening was more effective than either medication used alone.
  - Combination therapy with multiple antidepressants beyond the above example, or with other serotonergic substances should be undertaken with caution due to an increased risk of serotonin syndrome.

**Common substances that can induce serotonin syndrome**

- **Antidepressants and other psychoactive drugs**
  - Monoamine oxidase inhibitors (MAOIs)
  - Tricyclic antidepressants (TCAs)
  - Selective serotonic reuptake inhibitors (SSRIs)
  - Serotonin and noradrenaline re-uptake inhibitors (SNRIs)
  - Lithium
  - Bupropion

- **Analgesics and antitussives**
  - Tapentadol
  - Tramadol
  - Pethidine
  - Fentanyl
  - Dextromethorphan

- **Drugs of abuse**
  - MDMA (ecstasy)
  - LSD
  - Amphetamines
  - Cocaine
• Antiemetics
  o Ondansetron
  o Granisetron
  o Metoclopramide

• 5-HT1 agonists – Sumatriptan

• Herbs
  o St John’s Wort
  o Ginseng
  o Nutmeg

• Others – Valproate

• **Source: Royal Children’s Hospital Melbourne – Clinical Practice Guidelines - Serotonin Syndrome**

  • Consider specialist advice, as there is little data regarding the relative benefits or adverse effects of specific drug combinations.

  ➢ Opioids are generally not recommended for fibromyalgia, however if tramadol is used (limited studies have shown benefit), consider the potential interaction with SSRIs and increased risk of serotonin syndrome.

7. If the patient is:
  ➢ not responding or there are any concerns, request a [rheumatology assessment](#);
  ➢ having difficulties with pain management, refer to a pain management program or for specialised pain assessment.

### Referral

• Consider a [GP Care Plan and Team Care Arrangement](#) with referrals as required to:
  o exercise physiologist.
  o physiotherapy.
  o occupational therapist.

• For psychological interventions e.g. cognitive behavioural therapy (CBT), or help with pain management and symptoms such as sleep disturbance, refer for [psychology assessment](#).

• If the patient is:
  o not responding or there are any concerns, request a [rheumatology assessment](#);
  o having difficulties with pain management, refer to a pain management program or for [specialised pain assessment](#).
Information

For health professionals

Further information

- Australian Family Physician – Diagnostic Challenges: Fibromyalgia
- Researchgate – EULAR recommendations for management of fibromyalgia

For patients

- Arthritis Australia – Arthritis Information Sheet: Fibromyalgia
- CFIDS and Fibromyalgia Self Help (online course)
- Fibromyalgia Australia
- Treating Chronic Fatigue Syndrome and Fibromyalgia (free, online self-study course)

References


Disclaimer

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