Overview

Fibromyalgia (FM) causes chronic musculoskeletal pain, fatigue and sleep disturbance, often with overlapping mood and cognitive disturbances. It is more common in females and typically onsets between 20 and 60 years of age. The pathophysiology remains unclear, but thought to result from a central sensitization to pain. This has been a controversial disease as patients look well and have no abnormalities on physical exam, laboratory studies or imaging.\(^1\,2,4\)

Diagnostic Considerations\(^2\)

Two different diagnostic criteria are in common use:

1. 1990 ACR FM classification criteria (85% sensitivity and specificity for differentiating FM with other rheumatic diseases)\(^2\)
   - Symptoms >3 months
   - Diffuse pain, both right and left, above and below the diaphragm
   - Physical findings of at least 11 of 18 tender points\(^1,2\)

2. 2010 ACR preliminary diagnostic criteria (96% sensitivity and 92% specificity)\(^1\)
   - Symptoms >3 months
   - No disorder to otherwise account for the pain
   - Widespread pain index (WPI) ≥7 and symptom severity (SS) scale score ≥5 or WPI 3-6 and SS scale score ≥9\(^1,2\)

Differential Diagnosis\(^1,2,4\)

- Mental health disorder
- Hypothyroidism
- Rheumatoid arthritis
- Adrenal dysfunction
- Multiple myeloma
- Lupus
- Polymyalgia rheumatica
- Myositis
- Ankylosing spondylitis
- Infection ex. EBV

Investigations \(^1,2,4\)

FM is not a diagnosis of exclusion.

Blood work should be limited to CBC, common serum chemistries, ESR/CRP and thyroid function tests.

Other tests such as ANA, rheumatoid factor, CK, ferritin and vitamin D should only be done if indicated by the history or physical.

Management

Non-pharmacological:
- Patient education about FM
- Structured incremental cardiovascular exercise plan
- CBT
- Multidisciplinary therapy (massage, spa therapy etc)\(^1,2,4\)
### Management

#### Pharmacological

<table>
<thead>
<tr>
<th>Drug Name</th>
<th>Dose</th>
<th>Safety Concerns</th>
<th>Drug Interactions</th>
<th>Additional Comments</th>
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</thead>
<tbody>
<tr>
<td><strong>Tricyclic antidepressants</strong></td>
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<tr>
<td>Amitriptyline – off label use in Canada</td>
<td>10-50 mg OD qhs&lt;sup&gt;3,4&lt;/sup&gt;</td>
<td>May be inappropriate in geriatric patients&lt;sup&gt;5&lt;/sup&gt;</td>
<td>ACE inhibitors, Tramadol, Serotonin modulators, Alpha/Beta Agonists&lt;sup&gt;6&lt;/sup&gt;</td>
<td>Especially helpful for patients with poor sleep or protracted aches and pains&lt;sup&gt;4&lt;/sup&gt;</td>
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<tr>
<td>Cyclobenzaprine – off label use in Canada</td>
<td>10-40 mg PO qhs&lt;sup&gt;3,4&lt;/sup&gt;</td>
<td>May be inappropriate in geriatric patients&lt;sup&gt;6&lt;/sup&gt;</td>
<td>ACE inhibitors, Serotonin modulators&lt;sup&gt;6&lt;/sup&gt;</td>
<td>Using in combination with traditional analgesics like acetaminophen or codeine may be beneficial&lt;sup&gt;4&lt;/sup&gt;</td>
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<tr>
<td><strong>Alternative Agents = SNRIs, Anticonvulsants</strong></td>
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<td>Duloxetine (Cymbalta) – officially indicated for fibromyalgia in Canada</td>
<td>30-60 mg PO OD&lt;sup&gt;1,3&lt;/sup&gt;</td>
<td>Suicidal thinking/behaviour&lt;sup&gt;7&lt;/sup&gt;</td>
<td>Alcohol, Serotonin modulators, Alpha/Beta Agonists, Antiplatelet agents&lt;sup&gt;7,8&lt;/sup&gt;</td>
<td>For patients with poor response or intolerance of TCAs, whose chief complaint is depression (duloxetine). Using in combination with traditional analgesics like acetaminophen, tramadol or codeine may be beneficial&lt;sup&gt;4&lt;/sup&gt;</td>
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<tr>
<td>Pregabalin (Lyrica) – officially indicated for fibromyalgia in Canada</td>
<td>25-50 mg PO qhs then titrate up. Usually require doses of 300-450 mg in 2 divided doses&lt;sup&gt;1,3,4&lt;/sup&gt;</td>
<td>Dizziness and somnolence therefore caution using heavy equipment. Angioedema and thrombocytopenia&lt;sup&gt;3&lt;/sup&gt;</td>
<td>Alcohol&lt;sup&gt;9&lt;/sup&gt;</td>
<td>For patients with poor response or intolerance of antidepressants, whose chief complaint is sleep disturbance&lt;sup&gt;4&lt;/sup&gt;</td>
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<tr>
<td>Gabapentin – off label use in Canada</td>
<td>100 mg PO qhs initially then titrate up. Usually require doses of 1200-2400 mg in 3 divided doses&lt;sup&gt;3&lt;/sup&gt;</td>
<td>Dizziness and somnolence therefore caution using heavy equipment. Dose adjust for renal impairment&lt;sup&gt;10&lt;/sup&gt;</td>
<td>Alcohol&lt;sup&gt;10&lt;/sup&gt;</td>
<td>Using in combination with traditional analgesics like acetaminophen, tramadol or codeine may be beneficial&lt;sup&gt;11&lt;/sup&gt;</td>
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### Bottom Line

FM is a chronic disease of diffuse musculoskeletal pain, often overlapping with psychiatric diagnoses. It is diagnosed clinically using 1 of 2 different criteria, with laboratory investigations only to rule out other conditions on the differential. Management typically involves tricyclic antidepressants, along with CBT, exercise and multidisciplinary therapy, but it remains a difficult disease to treat.

### Resources

- For WPI and SS scale score:
  
  http://www.proposedacrriteriafm.com/email/3/img/l2.jpg

- For diagram of tender points
  