Restless legs treatment algorithm

Diagnosis of RLS (see note 1)
Measure serum ferritin and renal function (2)
Screen for exacerbating agents (3)
Recommend non-drug based measures (4)
Consider medication in patients with symptoms that significantly impair quality of life (5)
Refer to movement disorder clinic (or sleep clinic) if symptoms remain troublesome

Notes:

(1) Criteria for a diagnosis of restless legs syndrome

<table>
<thead>
<tr>
<th>Essential diagnostic criteria</th>
<th>Supportive criteria</th>
<th>Associated features</th>
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<tr>
<td>An urge to move the legs, usually accompanied or caused by uncomfortable or unpleasant sensations in the legs.</td>
<td>Positive response to dopaminergic agents.</td>
<td>Onset can be at any age, but patients are usually middle aged or older at presentation.</td>
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<tr>
<td>Unpleasant sensations or urge to move begin or worsen during periods of rest or inactivity, such as lying or sitting.</td>
<td>Periodic limb movements of sleep or during wakefulness.</td>
<td>Leg discomfort or the need to move results in insomnia.</td>
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<td>Unpleasant sensations or urge to move are partially or totally relieved by movement, at least for as long as the activity continues.</td>
<td>Positive family history of restless legs syndrome.</td>
<td>Low serum ferritin (200 pmol/L; &lt;90 μg/L).</td>
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Unpleasant sensations or urge to move are worse during the evening or night than during the day, or they occur only during the evening or night.

2) Measure serum ferritin in all patients with symptoms of restless legs syndrome. Anaemia is not sufficiently sensitive a marker for iron deficiency. Patients with a serum ferritin of less than 200 pmol/L (90 μg/L) should be started on iron supplements. Renal impairment can also cause restless legs symptoms.

3) Take a drug history to screen for exacerbating agents, such as antipsychotics, antidepressants especially selective serotonin reuptake inhibitors and serotonin noradrenaline reuptake inhibitors), antihistamines, dopamine receptor blocking agents such as metoclopramide and prochlorperazine, and diphenhydramine.

4) Not all patients need treatment, and only about 20% require drugs. Non-drug based measures include avoidance of alcohol, caffeine, and smoking; good sleep hygiene; moderate regular exercise; avoidance of overexertion, stress, or sleep deprivation; and brief walking or other motor activities, hot baths, or leg massage before bedtime.

5) Consider drugs in patients with symptoms that seriously impair quality of life, sleep, or daytime functioning:

- The dopamine agonists, (pramipexole - See BNF or SPC for dosage advice - is first choice based on cost), but all can cause augmentation (worsening of symptoms after a period of control) and escalation over the dose in the BNF is not recommended. Do not use Parkinson’s level doses in patients with RLS. Alternative dopamine agonists include ropinirole and rotigotine. All patients commenced on dopamine agonists should be counselled about impulse control disorders (see BNF).
- Many unlicensed medication have also been shown to have an effect. Pregabalin has trial evidence of effectiveness, as does gabapentin to a lesser extent and these may be better than dopamine agonists for some patients, or should be used second line where symptoms recur or are not controlled by low dose dopamine agonist. Codeine and clonazepam (unlicensed use) are also alternatives but may cause dependence.
- Rotation of drugs may be helpful for patients who experience augmentation.