The American Academy of Sleep Medicine (AASM) last published recommendations on the treatment of restless legs syndrome (RLS) and periodic limb movement disorder in 2004. It recently updated these recommendations based on a literature review and meta-analysis. Recommendations were graded based on the balance of benefits and harms, and on the quality of evidence. Standard recommendations include those with high- to moderate-quality evidence that the benefits outweigh the harms; guideline recommendations are based on low-quality evidence that the benefits outweigh the harms, or high- to moderate-quality evidence that the benefits and harms are closely balanced or uncertain. Other options include those based on low-quality evidence that the benefits and harms are closely balanced or uncertain.

**Restless Legs Syndrome**

**STANDARD RECOMMENDATIONS**

Pramipexole (Mirapex) and ropinirole (Requip) should be used to treat patients with moderate to severe RLS. They are typically well tolerated, and adverse effects (e.g., nausea, somnolence, and nasopharyngitis with pramipexole; nausea and vomiting, headache, dizziness, and somnolence with ropinirole) are self-limited with cessation of therapy.

**GUIDELINE RECOMMENDATIONS**

Levodopa is effective in the treatment of RLS, but carries the risk of augmentation (i.e., worsening of symptoms with ongoing treatment). This agent may be most beneficial in patients with intermittent symptoms who do not require daily therapy.

Cabergoline is more effective than levodopa but is not as well tolerated. Because of the potential for serious adverse effects, including heart valve damage, cabergoline should be used only if other recommended agents have been ineffective, and if close follow-up can be assured.

Opioids are effective in the treatment of RLS, especially for patients whose symptoms are not relieved by other medications. They are generally well tolerated and have a lower risk of augmentation than dopaminergic agents. However, patients should be monitored closely for adverse effects, including medication abuse and new or worsening sleep apnea.

**OTHER OPTIONS**

Low-quality evidence supports the use of gabapentin (Neurontin) in patients with mild to moderate RLS, particularly in those with both RLS and pain. However, its potential adverse effects (e.g., sedation, dizziness, vision changes, suicidal ideation) make the balance of benefits and harms uncertain.

Low-quality evidence supports the use of pregabalin (Lyrica) in the treatment of moderate to severe RLS. However, long-term follow-up is lacking; thus, other better-studied therapies should be considered before prescribing pregabalin.

Carbamazepine (Tegretol) has been downgraded from a guideline recommendation in a previous guideline to an option in the current update. Although its effectiveness was shown in earlier studies, no new studies have been performed, and other therapies have better evidence for their use. Potential adverse effects include sedation, liver abnormalities, suicidal ideation, and Stevens-Johnson syndrome.

Clonidine (Catapres) has minimal supporting evidence in the treatment of RLS and carries a considerable risk.
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of adverse effects (e.g., hypotension in normotensive patients). It may be considered in patients with concomitant RLS and hypertension.

Iron supplementation has not been proven effective in the treatment of RLS, except in patients with low ferritin levels or refractory symptoms. Parenteral high molecular–weight iron dextran therapy carries the risk of anaphylaxis. Oral iron supplementation is associated with fewer adverse effects (primarily constipation and in rare cases, iron overload) and is recommended over parenteral therapy whenever possible.

NO RECOMMENDATION

There is insufficient evidence to support the use of benzodiazepines, valproic acid (Depakene), valerian, and nonpharmacologic therapies (e.g., sleep hygiene, behavioral and nutritional strategies, compression devices, exercise) in the treatment of RLS.

Transdermal rotigotine (Neupro) was withdrawn from the U.S. market in 2008 because of concerns about inconsistent absorption from the patch. It was reapproved in 2012, but because of its market status at the time the AASM guideline was published, it was given a “no recommendation” rating, despite high-level evidence of effectiveness in the treatment of moderate to severe RLS.

Amantadine has been downgraded from a treatment option in the previous guideline because several superior options are available, and because there has been no new evidence for its use in patients with RLS.

There is conflicting evidence on whether antidepressants can cause or exacerbate RLS symptoms, and no recommendation can be made on whether patients with RLS may benefit from avoiding their use.

Periodic Limb Movement Disorder

There is insufficient evidence to recommend the use of pharmacologic therapy in patients diagnosed with isolated periodic limb movement disorder. However, existing data for RLS therapy support medical interventions in some patients with RLS who have periodic limb movements. Some studies have shown statistically significant decreases in periodic limb movement indices in patients with RLS who were taking pramipexole, ropinirole, and carbidopa/levodopa/entacapone (Stalevo). Gabapentin and pregabalin also showed improved indices in patients with RLS.