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ELDER CARE

A Resource for Interprofessional Providers

Restless Legs Syndrome

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Restless Legs Syndrome (RLS) is a common condition that geriatricians and primary care clinicians can easily manage. This issue of Elder Care will review the most important information needed to diagnose and treat RLS.

What is RLS?

Patients with RLS suffer from a strong urge to move their legs or other body parts. Since the urge is brought on by rest and is worse in the evening, it results in significant sleep disruption and can lead to daytime somnolence and diminished quality of life.

How Common is RLS?

RLS is estimated to affect about 10% of all adults, and up to 25% of those over 65. Older adults with RLS tend to have more severe symptoms than younger people because of the natural progression of the disease.

Diagnostic Criteria

There are no physical exam or lab findings that definitively identify RLS, so expert panels have developed specific clinical criteria to help diagnose the condition. Diagnosis is based on history alone, and there are five "essential criteria" that must be present to make the diagnosis: (1) a strong urge to move the legs or other body parts that (2) is brought on by rest, (3) gets better with activity, (4) gets worse in the evening or night, and (5) cannot be accounted for by another medical or behavioral condition. These essential criteria are partially defined by the URGE mnemonic: U=urge to move, R=rest-induced, G=gets better with activity, and E=evening or night-time accentuation.

In addition to the essential criteria, there are supportive features that are not required but help with diagnosis. They include the presence of periodic limb movements, a response to dopaminergic therapy, family history of RLS, and a lack of expected daytime sleepiness

RLS can be classified as "intermittent" (symptoms less than twice weekly), "chronic-persistent" (untreated symptoms occur >twice weekly) or "refractory" (unresponsive to monotherapy). In addition, RLS can be classified as "clinically significant" or "not clinically significant," based on the amount of distress and impairment that results.

RLS must be differentiated from other disorders that can have similar symptoms. Table 1 summarizes a few other movement disorders that can be confused with RLS.

Table 1. Some Conditions That Can Mimic RLS

Condition	What is Different than RLS
Conditions that occur during sleep	
Hypnagogic jerks	Sudden, brief, involuntary jerks of arms or legs, typically at onset of sleep
Sleep-related cramps	Involve specific muscle groups. Relieved (or partially relieved) by stretching
Pain syndromes	
Neuropathic pain	Pain may occur during periods of activity, rather than only during rest
Peripheral vascular disease	Claudication (pain) evoked by activity, rather than by rest
Painful-legs/ moving-toes syndrome	Continuous/semi-continuous involuntary toe movement with associated leg pain, usually in patients with spinal cord or foot/leg injuries
Drug–induced syndromes	
Neuroleptic-induced akathisia	Day or nighttime restlessness (in patient taking neuroleptic) that is generalized, immediately relieved with movement, and recurs after stopping movement
Normal positional discomfort	Alleviated by change in body position without need for repetitive body movements

TIPS FOR TREATING RESTLESS LEGS SYNDROME

- Always check a ferritin level in patients with suspected RLS, and give iron therapy if ferritin is <75 µg/L.
- Recommend non-drug treatment as first-line therapy. It includes good sleep hygiene practices, daytime exercise, and avoiding substances that can aggravate RLS.
- If drug therapy is needed, Alpha-2-delta calcium ligands (gabapentin, pregabalin, or gabapentin enacarbil) should be considered. Dopamine agonists (including pramipexole and ropinirole), previously considered first line agents are now reserved for later use.
- Although they may be considered earlier for younger patients, benzodiazepines and opioids should be reserved for refractory symptoms in the elderly.

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Secondary Causes

The most common identifiable conditions known to cause RLS include iron deficiency, renal failure, medication side effects and, in younger adults, pregnancy. Screening for these secondary causes with a history, physical, and laboratory exams can eliminate these treatable causes of RLS. Iron panels and ferritin levels should be checked in all patients with RLS symptoms and iron replacement therapy given if levels are <75 µg/L, even if the patient is not anemic. Consider checking TSH, vitamin B12, and vitamin D levels as well. There is also an association between RLS and mood disorders and patients should be screened for these conditions.

Non-Drug Treatments

Non-drug treatment options include instituting good sleep hygiene practices, increased daytime physical exercise, mentally stimulating activities, and avoiding stimulants and other substances that can exacerbate symptoms (Table 2). Patients might also consider trying pneumatic compression devices prior to the typical onset of symptoms.

Drug Treatment

If drug therapy is warranted, first line options are alpha-2-delta calcium ligands (Figure 1) unless otherwise contraindicated.

Second line options include non-ergot dopamine agonists. Although previously considered first line, they are now reserved for later use, due to increased awareness of dopamine agonist induced worsening of symptoms (augmentation) and the development of impulse control disorders with this class of medications. Augmentation is not, however, associated with the alpha-2-delta calcium ligands.

For refractory RLS, combination therapy should be considered. Combinations of dopamine agonists, alpha-2-delta ligands, opioids, and benzodiazepines can be personalized based on the patient's overall clinical complexities and contraindications. In particular, chronic opioids and benzodiazepines must be used with caution in older adults. Figure 1 provides a stepwise approach to drug therapy based on symptom frequency and severity.

Secondary causes should also be reconsidered at this stage.

Table 2. Common Medications that Can Worsen Restless Legs Syndrome

Antihistamines	Glucocorticoids	Selective serotonin reuptake inhibitors
Caffeine and other stimulants	Anti-emetics	Tricyclic antidepressants
Calcium-channel blockers	Phenothiazines	Nicotine, alcohol

Figure 1. Stepwise Approach to Treatment of Restless Legs Syndrome

STEP 3 **Refractory Symptoms**(Symtoms not responsive to monootherapy; Changing Therapy)	• Check and replace iron stores • Consider and correct potential contributing factors • Trial of combining first and second-line agents below • Consider opioids or benzodiazepines for severe/resistant cases
STEP 2 **Daily Symptoms** (Symptoms more than 2 days/wk; Daily Therapy)	First-line treatments: Alpha-2-delta calcium ligands (gabapentin, pregabalin, or gabapentin enacarbil) unless contraindicated by patient's medical conditions Second-line treatments: Non-ergot dopamine agonists (pramipexole, ropinirole, rotigotine patch)
STEP 1 **Intermittent Symptoms** (Symptoms <2 days/wk; As-Needed Therapy)	• First-line treatment: non-drug treatment, avoidance of triggering substances, treatment of secondary causes • Second-line treatment: as-needed therapy with dopamine agonists, benzodiazepines, or low-potency opioids (codeine, tramadol)

References and Resources

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