Restless Leg Syndrome (RLS) Treatment Algorithm in Hemodialysis Patients

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Assessment

- Rule out mimic disorders
- Rule out drug-induced RLS
- Assess risk/contributing factors
  - Iron deficiency
  - Sleep deprivation
  - Positive family history
  - Rheumatoid arthritis or Sjogren's
  - Pregnancy

Mimic Conditions

- Movement disorders: akathisia, ADHD
- Restlessness secondary to anxiety, depression, psychotic disorders
- Local leg pathology: e.g. peripheral neuropathy, myelopathy, peripheral venous congestion
- Positional discomfort

Drug-induced RLS

- Dopamine antagonists:
  - Antipsychotics: pimozide, haloperidol, olanzapine, risperidone
  - Metoclopramide, promethazine
- Antidepressants:
  - Mirtazapine (up to 28%)
  - SSRI (<5%) e.g. citalopram, escitalopram, fluoxetine, paroxetine, , sertraline
  - SNRI's (<5%), e.g. duloxetine, venlafaxine
- Stimulants: alcohol, caffeine, nicotine
- Others: TCA's, carbamazepine, lithium

Initial Recommendation

- Discontinue or reduce offending drug, if feasible
- Correct Iron deficiency – may prevent initial augmentation with dopaminergic therapy
- Encourage good sleep hygiene (see insomnia flowchart)

http://phc.eduhealth.ca/PHC_PDFs/FM/FM.900.St82.PHC.pdf

Medication options

AVOID opioids and quinine

* If RLS symptoms occur during HD, give medication prior to HD

❑ ***For intermittent RLS***, levodopa/carbidopa (Sinemet®) 100/25 mg tablet – ½ tablet PO HS*, titrate Q3-7days to effect up to 200/50 mg PO HS*. If patient awakens in the middle of the night with RLS, use CR formulation. (levodopa doses ≥200 mg may increase risk of augmentation)

❑ ***For daily RLS***, dopamine agonists

- Compared to levodopa, decreased risk of augmentation but increased incidence of hypotension and nausea. Caution re sleep attack (driving is not recommended).

❑ **ropinirole** 0.25 mg PO 2 hours prior to HS*; increase by 0.25 mg PO Q7days to effect up to a maximum of 4 mg/day (PREFERRED)

❑ **pramipexole** 0.125 mg PO 2 hours prior to HS*; may increase by 0.125 mg PO Q7days to effect up to a maximum of 0.75 mg/day

❑ ***If ineffective with dopaminergic agent or RLS with painful neuropathy*,**

❑ gabapentin 100 mg po HS*; titrate by 100 mg Q7days to a maximum of 300 mg PO HS*

❑ **pregabalin** 25 mg po HS*; titrate by 25 mg Q7days to a maximum of 75 mg PO HS*

Refractory symptoms

❑ Benzodiazepines

❑ Preferably avoid secondary to potential for sleep dependency, questionable efficacy and adverse effects due to clonazepam's long half-life. If severe insomnia, refer to Insomnia Treatment Algorithm

❑ clonazepam 0.5 mg PO HS*, titrate by 0.5 mg Q7days to a maximum of 2 mg po HS

❑ clonidine 0.05 mg po HS if patient is not hypotensive