Insomnia Treatment Algorithm for Hemodialysis Patients

Assessment

- Sleep symptoms (latency, total sleep time, early and/or frequent waking, daytime impact)
- Duration of symptoms
- Dialysis impact on insomnia (napping on dialysis, getting up too early for AM dialysis)
- Sleep hygiene assessment
- Detailed medication history
- Social habits – caffeine, alcohol, nicotine, other recreational drug use

Consider Etiology

- Dialysis schedule related
- Medication related
- Sleep apnea
- Restless leg syndrome, periodic limb movement disorder
- Pruritus
- Pain
- Depression, anxiety
- Psychosocial problems
- Nocturia (if applicable)
- Heart failure
- COPD
- GERD
- Thyroid abnormality

Medication causes of insomnia*

- Recreational Drugs
  - Alcohol
  - Amphetamines and Methamphetamines
  - Caffeine
  - Nicotine
  - Drug withdrawal
- Cardiovascular agents
  - Beta blockers
  - Diuretics (if late in the day)
- Endocrine agents
  - Corticosteroids
  - Thyroid hormone
- Stimulants
  - Dextroamphetamine
  - Methylphenidate
- Neurologic and psychotropic agents
  - Bupropion
  - Lamotrigine
  - Levodopa
  - Phenytoin
  - SNRI, e.g. venlafaxine
  - SSRI, e.g. fluoxetine
- Miscellaneous agents
  - Donepezil
  - Interferon
  - Stimulant Laxatives
  - Oral Contraceptives
  - Pseudoephedrine
  - Salbutamol/salmeterol
  - Theophylline

* contact pharmacist if in doubt

Treatment

- Treat/eliminate underlying cause(s)
- Implement good sleep hygiene measures, relaxation technique and cognitive behavior therapy

Implement Good Sleep Hygiene Measures (Reassess in 2-4 weeks)

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

- Wake up at the same time every morning.
- Do not go to bed until you feel sleepy.
- Do not "try" to fall asleep.
- Avoid napping during the day.
- Improve your sleep environment
- Avoid caffeine in the evening.
- Start a regular exercise and activity program.
- Save your bedroom for sleep (and sex) only.
- Leave your day's dilemma's at the door.
- Incorporate relaxation techniques.

Inadequate Relief →

Medication Options

- Minimize use after 3-4 week
- **Avoid** OTC sleep aids (e.g. diphenhydramine), short acting benzodiazepine (e.g. triazolam), long acting benzodiazepine (e.g. flurazepam or diazepam), chloral hydate, tricyclic antidepressant or antipsychotic
- Usual sedative dose (give HS PRN)
  - ❑ Zopiclone 3.75-15 mg
  - ❑ Trazodone 25-100 mg (if no orthostatic hypotension)
  - ❑ Benzodiazepines:
    - ❑ Temazepam 15-30 mg
    - ❑ Lorazepam 0.5-2 mg
    - ❑ Oxazepam 10-30 mg
  - ❑ Zolpidem 10 mg SL (10mg dose not recommended in elderly)
  - ❑ Melatonin 3mg* (note: there is NO standardization or regulation on health products in Canada; a reputable source is recommended)
- Reassess in 2-4 weeks