

Insomnia is a common problem associated with many chronic pain syndromes. Patients may have trouble falling asleep (long sleep latency), trouble staying asleep (excessive or prolonged awakenings), or feel non-restored from sleep. Patients with insomnia often report higher levels of pain and fatigue, decreased energy, difficulty concentrating, memory impairment, loss of productivity, irritability, increased anxiety, and multiple physical complaints. Persistent untreated insomnia is a strong risk factor for major depression. Interventions to restore the quality and quantity of sleep may be important components in the overall pain treatment plan.

### **Assessment & Management**

Obtain a focused sleep history from the patient and bed partner. Screen for the presence and severity of depression and anxiety. Persons with a major depressive disorder should receive an antidepressant as the primary drug treatment. If pain is the cause of insomnia, evaluate the effectiveness of current pain management strategies and modify the treatment plan as needed. Most sleep specialists advocate a multidimensional approach including general measures for improving sleep hygiene, behavioral techniques and hypnotic or antidepressant medication.

### **Non-Pharmacologic Treatments**

Sleep hygiene. Decrease or eliminate the use of caffeine, especially after noon; don't use tobacco or alcohol near bedtime; avoid heavy meals close to bedtime; avoid vigorous exercise within 3-4 hours of bedtime; establish a regular schedule for going to bed and getting up; avoid daytime naps; keep the bedroom at a comfortable temperature and minimize light and noise.

Stress management measures. Ventilate conflicts and anger to avoid internalization, address daily worries a few hours before bedtime, be tolerant of occasional sleeplessness, and try relaxation techniques. Use distraction (reading or TV) or relaxation (progressive muscle relaxation, warm bath) techniques before bedtime

Physical symptoms. Manage symptoms such as pain, cough, and dyspnea that may interfere with sleep.

Spiritual concerns. Patients with life-threatening conditions or dyspnea may be afraid of falling asleep, or may not want to turn off the lights because they are afraid of dying. Talk openly about these issues with the patient. Seek assistance from family members, spiritual counselors, or social workers to help the patient with unresolved personal concerns.

### **Pharmacologic Treatments**

Benzodiazepines for short-term use. temazepam (start 7.5mg po qhs), flurazepam (15mg po qhs), estazolam (0.5mg p qhs) and triazolam (0.125mg po qhs). Clonazepam and quazepam are also used. These drugs have a wide range of half-lives and produce a wide variety of side effects such as daytime sedation and impairment of motor function. Short-acting drugs such as triazolam and temazepam have less residual daytime effects, but may produce rebound insomnia. Long-acting drugs (flurazepam and quazepam) are less likely to produce rebound insomnia, but more likely to cause daytime sedation. Other side effects include tolerance and physical dependence with long-term use and additive CNS and respiratory depressant effects.

Nonbenzodiazepine benzodiazepine-receptor agonists: zolpidem (5-10 mg po qhs) and zaleplon (5-10mg po qhs). They are rapidly absorbed, do not have active metabolites, and do not lead to the

development of physical dependence and have low abuse potential. Since zaleplon is ultra short-acting, it is ideal for problems with sleep onset and to restore sleep in patients with nocturnal awakenings. These drugs appear to disturb sleep architecture less than benzodiazepines. Should not routinely be used for longer than 7-10 days.

Melatonin receptor agonist: ramelteon (8 mg po qhs). Helpful in patients with long sleep latency; supports circadian rhythm that establishes normal sleep cycle. May be prescribed for long-term use. Little rebound insomnia. Side effects include dizziness, somnolence and nausea.

Antidepressants such as trazodone (25-100mg po qhs), doxepin (10-50mg po qhs), amitriptyline (10-50mg po qhs) and imipramine (10-75mg po qhs) may be used for insomnia due to their sedative properties; all can produce orthostatic hypotension; doxepin and amitriptyline are highly anticholinergic.

Antihistamines/OTC drugs such as diphenhydramine (25-100mg po qhs) or other first-generation antihistamines have sedative properties but are also anticholinergic which may be a particular problem in the elderly. Patients often experience morning hangover. Two antihistamines, diphenhydramine and doxylamine, are FDA approved for sale as “sleep aids” without a prescription. They can cause daytime sedation, impairment of performance skills such as driving and troublesome anticholinergic side effects.

Sedative Hypnotics such as chloral hydrate have been used in the past, but are more toxic than benzodiazepines.

*References:*

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