INSOMNIA SCREENING AND TREATMENT

A Quick Reference Guide for HIV Primary Care Clinicians

Insomnia occurs frequently in HIV-infected patients and during all stages of HIV disease.[1] Although insomnia is not unique to the HIV-infected population, insomnia screening should be part of routine HIV care due to the potentially negative effects of insomnia on health, including HIV disease progression.

RECOMMENDATION:

Clinicians should ask patients at routine monitoring visits about sleep quality and difficulty initiating or maintaining sleep.

What Is Insomnia?

- Difficulty falling asleep
- Frequent awakenings during sleep
- Early morning awakening, *or*
- Non-restorative sleep despite adequate sleep duration

Possible Causes of Insomnia

- Major life events, such as the death of a loved one
- Changes in sleeping environment (e.g., when in the hospital)
- Physical and mental health disorders
- Prescription or OTC medication use
- Use or relapse of use of alcohol or other substances[2-4]

Possible Consequences of Insomnia

- Fatigue, irritability, elevated blood pressure, excessive daytime sleepiness
- Non-adherence to ART[5]
- Increase in pain symptoms and worsening of physical health conditions[6]
- Relapse of psychiatric symptoms (e.g., anxiety, depression, mania)

FOR MORE INFORMATION, PLEASE VISIT WWW.HIVGUIDELINES.ORG

RECOMMENDATIONS:

When an HIV-infected patient reports insomnia, primary care clinicians should:

- Assess the patient's sleep patterns, as well as perform a differential diagnosis, to clarify the nature of the patient's insomnia
- Exclude and manage causes of secondary insomnia
- When possible, refer the patient at least once for evaluation by a psychiatrist or clinical psychologist
- Discuss sleep hygiene with the patient and consider nonpharmacologic approaches for treating insomnia before prescribing medications

SLEEP ASSESSMENT EVALUATION CHECKLIST FOR CLINICIANS

Assessment of Sleep Patterns

Suggest the patient keep a sleep log, which could include:

- ☐ Events prior to bedtime, including emotional stressors and the consumption of alcohol or caffeine-containing beverages
- ☐ Bedtime
- ☐ Time spent awake in bed before falling asleep
- ☐ Number, time, and length of awakenings
- ☐ Final time of morning awakening
- ☐ Time spent awake in bed before arising
- ☐ Frequency and duration of naps during the day
- ☐ Patient or bed partner observations of snoring, interrupted breathing, abnormal leg movements

Differential Diagnosis: Substance Use Etiologies

- ☐ Caffeine
- ☐ Nicotine
- ☐ Alcohol*
- ☐ Illicit drug use, particularly stimulant drugs

** While alcohol may help induce sleep, its use is associated with sleep disruptions.*

Differential Diagnosis: Mental Health Etiologies†

- ☐ Depression and anxiety disorders
- ☐ Severe psychiatric disorders, including mania and psychosis
- ☐ Side effects of psychotropic medications, including selective serotonin-reuptake inhibitors (SSRIs)

† The most common contributor to insomnia is the presence of a mental health disorder.[7]

Differential Diagnosis: Medical Conditions

- ☐ Pain
- ☐ Respiratory: *dyspnea and sleep apnea*
- ☐ Gastrointestinal: *gastroesophageal reflux*
- ☐ Endocrinologic: *hyperthyroidism, menopause*
- ☐ Neurologic: *cognitive impairment, neuropathy, periodic limb movements in sleep or restless limb syndrome*
- ☐ Cardiopulmonary: *lung disease, congestive heart failure*
- ☐ Nephrologic/urologic: *chronic kidney disease, frequent urination and incontinence*

Differential Diagnosis: Medications

- ☐ ART medications (e.g., efavirenz, lamivudine)
- ☐ ß-Blockers
- ☐ Bronchodilators
- ☐ Calcium channel blockers
- ☐ Corticosteroids
- ☐ Decongestants
- ☐ Immunomodulators (e.g., interferons, interleukin-2)
- ☐ Trimethoprim-sulfa
- ☐ Dapsone
- ☐ Amphotericin
- ☐ Fluconazole
- ☐ Isoniazid
- ☐ Diuretics taken at bedtime

SLEEP HYGIENE STRATEGIES*

DO

- ✔ Take warm baths before bed
- ✔ Exercise for at least 30 min/day most days of the week
- ✔ Maintain a bedtime routine (e.g., going to bed and waking up at a set time)
- ✔ Make bedroom cool, dark, and quiet
- ✔ Place the clock out of sight
- ✔ If unable to fall asleep after 20 minutes, leave bed and do something relaxing (e.g., reading); return to bed later

DON'T

- ✗ Don't consume caffeine (coffee, tea, chocolate, soda), alcohol, or nicotine before bedtime
- ✗ Don't eat a large meal just before bedtime
- ✗ Don't nap during the day
- ✗ Don't exercise within 2 hours of bedtime
- ✗ Don't work, eat, read, or watch television in bed

* These strategies are based on expert opinion. For more information, refer to the Mental Health Guidelines *Insomnia in HIV-Infected Patients* at www.hivguidelines.org.

COGNITIVE BEHAVIORAL STRATEGIES

- Referral to a sleep specialist to assist patients with cognitive-behavioral techniques may benefit some individuals with insomnia. Techniques include: cognitive therapy, relaxation training, sleep restriction, and phototherapy.

PHARMACOLOGIC APPROACH TO INSOMNIA

- Assess for patient use of OTC agents for insomnia and offer to prescribe an FDA-approved agent as a better option (e.g., offer ramelteon instead of OTC melatonin)
- Avoid prescribing medications for sleep disturbance that have narrow therapeutic ranges and potential for abuse (e.g., barbiturates, choral hydrate, and meprobamate)
- Limit to 1 week the use of antihistamines for promoting sleep in order to avoid worsening of symptoms due to long-term use
- Advise patients of the potential side effects of melatonin-agonist therapy, including OTC preparations, particularly severe hypersensitivity reactions
- Do not prescribe tricyclic antidepressants to patients with cardiac conduction problems; although some clinicians prescribe these agents for insomnia, most are not FDA-approved for this purpose

Checklist of questions when selecting a pharmacologic agent for insomnia:

- ☐ Will this agent improve symptoms that may be contributing to the patient's insomnia (e.g., depression, anxiety, neuropathic pain, etc.)?
- ☐ Will this agent pose risks to the patient based on comorbid medical conditions?
- ☐ Will this agent pose risks based on interactions with other medications, (e.g., zolpidem, zaleplon, and eszopiclone should be used with caution in patients taking protease inhibitors)?
- ☐ Is this the optimal agent for a patient with a current or past history of alcohol or sedative abuse/dependence?
- ☐ Can the patient afford the prescribed medication?

Agents With an FDA-Approved Indication for Insomnia

- ✔ **Antihistamines**
  Diphenhydramine
  Doxylamine
  Hydroxyzine
- ✔ **Non-benzodiazepine hypnotics:**
  Zolpidem
  Zolpidem-CR
  Zaleplon
  Eszopiclone
- ✔ **Melatonin Agonist**
  Ramelteon
- ✔ **Antidepressants**
  Trazodone
  Doxepin
- ✔ **Benzodiazepine hypnotics**
  Flurazepam
  Quazepam
  Estazolam
  Triazolam
  Temazepam
  Lorazepam

References

1. Reid S, et al. Psychosom Med 2005;67:260-269.
2. Feige B, et al. Alcohol Clin Exp Res 2007;31:19-27.
3. Brower KJ. Sleep Med Rev 2003;7:523–539.
4. Mahfoud Y, et al. Psychiatry 2009;6:38-42.
5. Ammassari A, et al. J Acquir Immune Defic Syndr 2001;28:445-449.
6. Ancoli-Israel S. Am J Manag Care 2006; 12(8 Suppl):S221-S229.
7. Reid S, et al. Psychosom Med 2005;67:260-269.

The cause of the patient's insomnia cannot be determined, the clinician's initial treatment of the underlying etiology does not resolve symptoms, and/or sleep apnea or a movement disorder is suspected

Refer patient to a psychiatrist (mental health disorder) and/or a sleep medicine specialist (for sleep apnea or movement disorder) for assessment and treatment

Patient accepts mental health/sleep medicine specialist referral?

YES

Coordinate with mental health/sleep medicine professional and continue monitoring

NO

Is the patient:

- ☐ Pregnant?
- ☐ Seriously medically ill?
- ☐ Suspected of having sleep apnea?
- ☐ Receiving medications with possible drug-drug interactions with sleep agents?

YES

- Counsel regarding sleep hygiene strategies
- Use sleep agents with caution (prescribe on a case-by-case basis)
- Revisit whether patient will accept a referral for further evaluation

NO

- Counsel regarding sleep hygiene strategies
- Initiate pharmacologic treatment with an FDA-approved agent for treating insomnia

For additional information regarding somatic symptoms, mental health disorders, and alcohol and substance use in HIV-infected patients, refer to www.hivguidelines.org