



Sleep Disorders and HIV

Why are sleep disorders a concern?

Patients with HIV or AIDS are more likely to complain of sleep difficulties than are patients with other medical illnesses. However, physicians may not always register the seriousness of disrupted sleep. It is important for medical professionals treating patients with HIV or AIDS to take complaints of disrupted sleep seriously, since such complaints are associated with an increased risk of depression, pain, and substance abuse.

Research shows that 30 - 40% of patients with HIV infection complain of having had some difficulty sleeping in the previous year, and as many as 50% have experienced insomnia at some time in their life. Moreover, between 10-20% of patients characterize their sleep problems as constant and severe.

What is insomnia?

Insomnia is the general term that describes the condition of getting too little sleep or poor quality sleep. People suffering from insomnia may have trouble falling asleep, trouble staying asleep, may experience "early morning waking," or may simply fail to experience restorative sleep. People experiencing those symptoms of insomnia will often in turn experience daytime fatigue, mood disturbance, confusion, or irritability.

- **Acute insomnia** is temporary and may be caused by pain, fever, or even a stressful event that is unrelated to HIV. Short-term acute insomnia lasts one to two weeks and is usually associated with a stressor such as job loss.
- **Chronic insomnia** is diagnosed when a patient has symptoms three or more nights per week for at least a month. This is associated with a host of neuropsychological problems as well as other medical conditions.
- **Sleep disturbance**, a form of insomnia, is characterized by an increase in stage 1 sleep (the stage where rapid eye movement or REM occurs) and a decrease in stage 2, or non-REM sleep.

What causes sleep disturbances in people with HIV/AIDS?

Chronic insomnia often affects patients early in the disease course, even before symptoms of HIV emerge. This may be due to anxiety, stress-related factors, or even subtle changes in sleep architecture (the pattern and stages of sleeping) caused by the HIV virus itself.

In patients with HIV symptoms, sleep difficulties may be caused by underlying conditions associated with HIV or its systemic complications (e.g., fever, pain, dehydration, and poor nutrition). In the more advanced stages of the disease, sleep difficulties are more prevalent and may be due to HIV-related dementia. HIV-related medications (e.g., antiretrovirals and corticosteroids) and other substances (e.g., alcohol) can also have negative effects on sleep.

Other factors that can cause HIV-related insomnia are stressful life events, substance abuse, and comorbid psychiatric conditions.

How is a sleep disturbance diagnosed?

Evaluating a patient for insomnia begins with a clinical interview with both the patient and his or her bed partner, if one exists. The interviewer should determine the duration of the sleep problem: is it transient? Short-term (less than three days)? Chronic (at least a month)? Next, the progression of the insomnia should be evaluated. Finally, the patient should be asked about any daytime symptoms he or she may have, such as fatigue, drowsiness, or cognitive changes such as difficulties with attention.

Patients should be asked about their method of response to the problem, including whether any past treatments have been tried. In addition, it is important to get a psychiatric and medical history as well as a family history of sleep disorders.

Having the patient complete a sleep diary or log is a very useful method to evaluate for insomnia. A physical



examination with laboratory tests may also be indicated. Polysomnography, the measurement of brain waves during sleep to determine sleep stages, is an effective means for gathering objective data about disrupted sleep stages and sleep architecture.

When treating a patient with HIV, the clinician must be aware of the high comorbidity potential associated with insomnia. There are a number of general medical conditions that are associated with insomnia, as well as psychiatric conditions. Insomnia in a patient with HIV may signal the presence of one or more comorbid disorders, and treatment of the sleep disruption itself should not begin until an underlying condition has been identified or ruled out.

How are sleep difficulties treated?

There are pharmacologic and non-pharmacologic methods of treating insomnia. In patients with HIV in whom drug interactions may be a concern, the treating clinician may wish to start treatment with non-pharmacologic methods to minimize complications. A basic non-pharmacologic treatment is to establish sleep hygiene rules. The first of these rules is for the patient to curtail time in bed so that the bed itself is primarily associated with sleep. After the clinician is able to determine the patient's recommended number of hours of sleep per night, he may recommend a bedtime strictly held to that amount. Seven hours is typically a healthy number of hours to sleep. The patient should be encouraged to never try to force sleep, since the very act of trying may actually increase arousal and thus prove counterproductive.

Exercise can be a very useful tool for regulating sleep if it is timed correctly. Sleep tends to be related to core body temperature, and humans sleep best at lower core body temperatures. Exercise increases core body temperature, and so patients with insomnia should not exercise just before bedtime but rather should try to exercise 4-6 hours beforehand. For non-exercisers, taking a hot bath for 20 minutes two hours before going to bed will lead to a compensatory drop in temperature, which will aid sleep. Patients may be helped by having a light bedtime snack. Hunger disrupts sleep, while eating releases enzymes that can promote sleep. However, patients with insomnia should avoid coffee, alcohol, tea, nicotine, and chocolate. In discussions on

various treatment options, it is important for the clinician and the patient not to try to change everything at once. It may be best to focus on one or two habits that are of concern and implement a plan to address each of them one at a time.

When nonpharmacologic treatments prove ineffective, a physician may try a variety of medications to relieve insomnia, including antidepressants, benzodiazepines, and traditional prescription sleep aids. Any medication that is being introduced for treating HIV-related insomnia should be carefully checked against existing medications for contraindications and interactions. Particular care should be taken with patients taking protease inhibitors. A number of the drugs used to treat insomnia can be habit forming, and, if stopped, can trigger rebound insomnia and withdrawal.

Is sleeping too much a sleep disorder?

Hypersomnia, or excessive sleeping, can be a sleep disorder in people with HIV/AIDS, although it may be less uncomfortable for the patient than insomnia. Hypersomnia is usually found in the advanced stages of the disease, when it is associated with extreme fatigue. Hypersomnia is quite serious, as it contributes significantly to excess morbidity and disability. There is not much data available on effective treatment of hypersomnia, although psychomotor stimulants may be helpful.

Sleep disorders in people with HIV or AIDS are generally treatable. It is important to monitor patients for sleep disturbances, since early and effective treatment of sleep disorders can greatly lower the potential for complications associated with the progression of the illness.

About this Fact Sheet

This fact sheet was written by Kerry Flynn Roy in collaboration with the APA Commission on AIDS. For more information contact American Psychiatric Association, Office of HIV Psychiatry, 1000 Wilson Blvd., Suite 1825, Arlington, VA 22209; phone: 703.907.8668; fax: 703.907.1089; or e-mail AIDS@psych.org. Visit our web site at www.psych.org/AIDS.