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# Problems in Family Practice

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## Insomnia

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Insomnia is a symptom requiring medical investigation and the elimination of external and physical causes. Anxiety and/or depression have been shown to be present in most of the patients complaining of inability to sleep. Antidepressant medication with sedating potential is very effective in patients with depressive symptoms when most of the dose is given at bedtime. Most of the sedative-hypnotic drugs disturb the qualitative aspects of sleep and many rapidly produce tolerance. Flurazepam has been shown to be the drug of choice for purely symptomatic insomnia. Except in very transient situational stresses, a psychotherapeutic relationship to investigate the causes of the insomnia may be the most important aspect of the treatment program.

Insomnia is defined as the inability to sleep, abnormal wakefulness. But how much wakefulness is abnormal? And how does one measure wakefulness? Reports of length of sleep by people who complain of insomnia have been shown to be grossly unreliable. In one series, good sleepers reported that it took them an average of seven minutes to fall asleep, and under laboratory conditions they proved to be remarkably accurate.<sup>1</sup> In contrast, poor sleepers grossly overestimated the time needed to fall asleep. They reported that it required them an average of 59 minutes, but it actually took only 15 minutes in the laboratory. Another study found different figures, but agreed

that only 20 percent of people complaining of insomnia actually slept as little as they estimated.<sup>2</sup> This is not to say that the complaints of insomniacs are invalid nor to analyze the discrepancies. Rather it is to point out the marked subjectivity which must be considered when speaking of sleep time and sleep loss.

The problem is further compounded because virtually nothing is known about the precise function of sleep. It is not possible to specify x hours of sleep as a requirement for healthy living because the function of sleep and what it accomplishes is not known. Sleep requirements appear to be highly individualized, and reduced sleep may represent insufficient sleep in one person and a decreased need for sleep in another.

Despite this obvious confusion, it is a fact that many concerned patients request help due to insomnia, and it may be that many more seek help through over-the-counter preparations. Subjectivity notwithstanding, each of us knows that a certain level of sleep loss (or should it be "apparent"

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sleep loss?) can produce a sense of fogginess and fatigue, and that sufficient sleep can lead to a feeling of well-being and enhanced efficiency. Shakespeare well understood the value of sleep when he said:

Sleep that knits up the ravelled sleeve of care,  
the death of each day's life,  
sore labor's bath, balm of hurt minds,  
great nature's second course, chief nourisher in  
life's feast.

Confusion and ignorance aside, it may be agreed that the patient who complains of being unable to sleep well has insomnia. It may be further agreed that insomnia represents deranged functioning just as pain does. Pain cannot be measured accurately and there are individual differences in tolerance, but the complaint of pain is recognized as indicative of a physiological and/or psychological malfunction necessitating investigation. So be it with insomnia.

## The Investigation

### History

A routine medical history should be amplified in the following areas:

#### A Description of the Sleep Patterns

This should include difficulty falling asleep, erratic or broken sleep, early morning awakening, daytime naps, dreams, nightmares, feelings upon awakening, habits directly before retiring, sudden awakenings with breathlessness or other unusual experiences, and the observations of relatives or associates.

#### An Investigation of the Onset of the Complaint

When did it begin? Is it cyclical or continuous? What was going on in the environment at the time? Have there been worries? changes in life patterns? previous episodes of insomnia?

#### Substance Intake

Question the consumption of coffee and other caffeine-containing beverages; of medications, sleeping pills, alcohol, and diet.

#### Discomforts

What are the sleeping arrangements? the external noises? other disquieting stimuli?

## Psychiatric History and Examination

Insomnia is a symptom, but rarely one that stands alone. It is one of the most common symptoms of psychiatric disorder, as will be discussed later. A psychiatric history and examination is essential, and much of it can be done as one gathers the routine information. The most significant thing is to be alert to those psychological factors which may produce insomnia.

## Physical and Laboratory Examinations

These may be routine, but in some instances the thoroughness will be predicated on the historical information obtained. For example, a suspicion of angina might lead to a more thorough cardiac examination than usual.

## A Sleep Log

Assuming that no cause is obvious, and understanding that insomnia is rarely an emergency, there is time to investigate thoroughly. Not infrequently the work-up itself will be curative. The patient should be asked to keep a sleep diary for one week. It should include minimally: the time of retirement and of arising; estimated time it takes to fall asleep; estimated number of awakenings; the time of terminal awakening; the estimated total time spent awake after retirement; sleep events (dreams, nightmares, unusual happenings, etc); and thoughts during the time between retiring and going to sleep. The recordings should be made upon awakening or shortly thereafter.

## Diagnosis

This discussion will not cover specific sleep disorders, although the physician must be familiar with them and must have excluded them by history and examination, sometimes including electroencephalographic studies in sleep laboratories.

The presenting patient complains of inability to sleep and has verified this as much as possible by

the week's sleep diary. An accurate diagnosis demands a knowledge of the possibilities of etiology. The conditions most apt to produce insomnia are: (1) situational stresses and adjustment reactions, (2) medical disorders, (3) psychiatric disorders, (4) ingested substances (drugs and alcohol), and (5) aging.

### *Situational Stresses and Adjustment Reactions*

No person is immune to transient insomnia in time of undue stress. Acute grief almost always produces sleep loss. Worries over finances, children, family crises, school examinations, and other personal problems may produce insomnia of a temporary nature. It also may occur in anticipation of a joyous event or during periods of excitement and expectation. Most of these situations will be uncovered easily in history taking, and most are self-limiting.

### *Medical Disorders*

Conditions which produce discomfort, physical and/or emotional (usually *and* emotional), preclude normal sleep. Particular attention should be given to obscure forms of arthritis, neuralgias, headaches, and the restless legs syndrome. Life-threatening illnesses involving malignancies, the heart, or the brain may produce fear and anxiety which increase exponentially after dark. Pain which may be easily ignored during the day frequently becomes a sleep-robbing nightmare when the attention turns inward at night.

### *Psychiatric Disorders*

Sleep difficulty is a classical and nearly omnipresent sign in depressive disorders. Lack of ability to sleep may be one of the first signs of an impending schizophrenic break or of a hypomanic episode in bipolar disorder. However, most insomniacs will not be so profoundly disturbed, but will have a history of anxiety or anxiety colored by depressive symptoms. One study showed that

over 85 percent of patients complaining of chronic insomnia had a Minnesota Multiphasic Personality Inventory Profile indicating pathology.<sup>3</sup> A large percentage of such patients do not recognize that they have an emotional disorder. Many will admit to "nervousness," but will blame the condition on the lack of sleep rather than see the proper cause-and-effect relationship. Leading the patient to make the proper connections may require considerable skill on the part of the physician.

### *Ingested Substances (Drugs and Alcohol)*

Several studies have shown that a large percentage of patients who complain of insomnia have been taking sleep-inducing medications. Most of these drugs, and this is certainly true of the barbiturates, become ineffective in two weeks or less. Frequently this leads to an increase in the dosage of the drug, only to have the increased amount become equally ineffective in a short period of time.<sup>3</sup> Drug-withdrawal insomnia may be produced even though the patient continues to take what seems to be more than the average dosage. Most of these drugs reduce the amount of rapid-eye-movement (REM) sleep (and dreams?), and many eradicate much of deep sleep (Stage 4). A rebound phenomenon in which REM sleep increases in both amount and intensity upon cessation of the drug ingestion may make the patient feel as if most of the night had been spent in wakefulness. A vicious cycle leading to habituation may be the result of continued attempts to induce sleep.

### *Aging*

Elderly people have both quantitative and qualitative changes in sleep patterns. They tend to spend less time in nocturnal sleep and the amount of Stage 4 sleep may be negligible. Their sleep diary, especially if kept by someone within the family, may show many short sleep episodes during the day. The elderly have more of all the various conditions which may produce insomnia, but most overlooked is a desire for "escape" sleep combined with masked depression. To grow old in this society, despite the numerous euphemisms to

deny it, is depressing. The elderly cry for attention, and moderate doses of it sometimes combined judiciously with small amounts of antidepressant drugs, may work miracles.

## Treatment

The following suggestions assume that obvious external and physical causes have been excluded and corrected.

### General Measures

1. Establish with the patient a regular, daily schedule which includes a time to retire and a time to awaken which is reasonably possible to follow.
2. Eliminate intake of caffeine-containing beverages for at least eight hours prior to the established bedtime.
3. Eliminate daytime naps and remaining in bed for any reason. Sleep should become associated with the bed, and the bed associated with being sleepy.
4. Increase physical exercise, although this may need to be done gradually in patients unaccustomed to it. Strenuous exercise should be avoided for at least three hours prior to bedtime.

### Drug Treatment

Depressed patients may respond to antidepressant medication by increased sleep several days before the level of the mood rises. When insomnia is a major symptom, the more sedating antidepressants such as doxepin and amitriptyline given in gradually increasing doses at bedtime are very effective. The starting dose can be 50 mg at bedtime with gradual increases up to 150 to 200 mg. Elderly patients may require only one half to two thirds the usual adult dose.

Patients with schizophrenia, and most schizophrenic patients are not in hospitals today, will respond better to phenothiazines with sedating potential (chlorpromazine and thioridazine.) The dose is highly individualized but most or all of it can be given at bedtime. The sleep-producing ef-

fects will be largely eliminated by awakening time, but the antipsychotic elements continue to be effective.

The remaining group of patients, by far the largest in number, may require symptomatic treatment. The drug used should be the one producing the desired results with the least potential for producing habituation and tolerance or disturbing the sleep quality. The two drugs most nearly meeting these criteria are chloral hydrate and flurazepam (Dalmane), parenthetically, the oldest and the newest of the sedating drugs presently in use. Of the two, flurazepam probably should be chosen as a drug whose effects most nearly approximate normal sleep, although no drug does so entirely. Flurazepam should be started at 15 mg nightly. It is more effective after three or four doses because of its long half-life, so an increase to a 30 mg dose should not be made before the fifth night of ineffectiveness.

### Psychological Treatment

Insomnia frequently becomes an obsession to mask all other conflicts. Medications may be used to alleviate the discomfort which it produces, but they also may serve as a medium for involving the patient in a therapeutic relationship with which to work out the underlying problems. Except in those cases of severe depression or schizophrenia, the aim of the treatment is to eliminate the need for a drug as soon as possible. It is worth repeating that no drug produces normal sleep, and that most sedative-hypnotic drugs are potentially harmful.

### References

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