Sleep Problems (Insomnia) in the Cancer Patient

Insomnia, or trouble sleeping, is a common problem for patients with cancer. Insomnia can also affect patients after being treated for cancer. Not all patients talk to their provider about the problem and many providers do not ask. This may be because:

- Insomnia may be viewed as a normal reaction to the cancer diagnosis and treatment.
- Insomnia may be viewed as a lesser priority than the cancer treatment.
- Healthcare providers may lack the knowledge to diagnose and treat this problem.

Symptoms of insomnia can include:

- Difficulty falling asleep.
- Waking up multiple times during the night.
- Waking up early in the morning and being unable to get back to sleep.

Patients may have one or all of these complaints, but they must meet the criteria to be classified as insomnia syndrome as defined by the International Classification of Sleep Disorders. These criteria are: difficulty sleeping marked by either (or both) needing 30 minutes or more to fall asleep, or having more than 30 minutes of nighttime awakenings, with a ratio of total sleep time to time spent in bed less than 85%. The sleep disturbance must occur at least 3 nights per week, and cause issues with daytime functioning or marked distress. Many patients may not fit these specific criteria, but suffer from the symptoms of insomnia, which affects their quality of life. Insomnia can lead to fatigue, memory and concentration problems, mood disturbances and psychiatric disorders. Studies have suggested that insomnia may play a role in physical symptoms, shorter lifespan and immunosuppression. For these reasons, and to improve quality of life, patients should seek and be offered treatment for insomnia.

There are many reasons you can have insomnia. A personal or family history of insomnia, having depression or an anxiety disorder, advanced age, and female gender all put a patient at higher risk of developing insomnia. Other factors include: certain medications, hospitalization, chemo, radiation, hormonal therapy, pain, hot flashes, nausea, and vomiting. Several additional factors, that can often be easily modified, include an irregular sleep schedule, an excessive amount of time spent in bed, napping, engaging in sleep interfering activities in the bedroom, and unrealistic sleep expectations.

Treatment

Some symptoms from illness or medications can lead to insomnia. Treatment of symptoms such as pain, nausea, depression, and hot flashes may improve insomnia. If the insomnia persists, patients may be treated with both pharmacologic and psychologic therapy. The most often used treatment for patients with insomnia are hypnotic medications. The table below lists some of the more common medications and their side effects. These medications can have side effects such as toxicity when taken with other sedating agents, residual next-day effects, risk of dependence, and rebound insomnia when stopped. They should not be taken for longer than 2 to 4 weeks. These medications should not be mixed with other sedating agents or alcohol.

<table>
<thead>
<tr>
<th>Generic Name</th>
<th>Brand Name</th>
<th>Class of Drug</th>
<th>Most Common Side Effects</th>
<th>Usual Dose Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clonazepam</td>
<td>Klonopin</td>
<td>Benzodiazepine/anticonvulsant</td>
<td>Drowsiness, behavior disturbances</td>
<td>0.5 - 2 mg</td>
</tr>
<tr>
<td>Lorazepam</td>
<td>Ativan</td>
<td>Benzodiazepine/anti-anxiety</td>
<td>Drowsiness, disorientation, amnesia, sedation</td>
<td>0.5 - 1 mg</td>
</tr>
</tbody>
</table>
Alprazolam (Xanax) | Benzodiazepine/anti-anxiety | Drowsiness, light headedness, depression, dry mouth | 0.25 - 1 mg

Temazepam (Restoril) | Benzodiazepine/hypnotic | Drowsiness, dizziness, lethargy | 15 - 30 mg

Estazolam (Prosom) | Benzodiazepine/hypnotic | Drowsiness, dizziness, lethargy | 0.5 - 1 mg

Triazolam (Halcion) | Benzodiazepine/hypnotic | Drowsiness, dizziness, headache | 0.125 - 0.5 mg

Zaleplon (Sonata) | Hypnotic/non-benzodiazepine | Headache | 5 - 10 mg

Zolpidem (Ambien) | Hypnotic/non-benzodiazepine | Headache | 5 - 10 mg

Eszopiclone (Lunesta) | Sedative/non-benzodiazepine | dizziness | 1 - 3 mg

Diphenhydramine (Benadryl) | Antihistamine | memory problems, dry mouth, and blurred vision | 25 - 50 mg

The same cautions should be taken with over the counter sleep aids. Many of these medications contain antihistamines, which are designed to treat allergies, not to treat insomnia. Antihistamines have the side effect of causing sleepiness, but may not work as well as prescription sleep aids. The provider can determine which medication, if any, would be best for the patient.

Several herbal products, available over the counter, are used to treat insomnia. These include melatonin, kava-kava and valerian. Herbal products and nutritional supplements are not required to undergo the same rigorous testing as prescription medications in order to meet government standards. Their long-term impact, side effects, and possible interactions with other drugs or medical conditions are often not known. You should talk with your provider before taking an herbal product or nutritional supplement for sleep. Learn more about herbal supplements for insomnia at the National Center for Complementary and Alternative Medicine.

Non-Pharmacologic Treatments

There are several non-pharmacologic treatments for insomnia. Studies have reported that patients treated benefited from these psychologic treatments, and that improved sleep continues up to 24 months after the initial treatment. These treatments include stimulus control therapy, sleep restriction procedures, relaxation therapy, cognitive therapy, and sleep hygiene education. People have the best results when a combination of these techniques is used.

Stimulus Control

Stimulus control therapy consists of reassociating bedtime and the bed/bedroom with sleep and establishing a regular sleep-wake cycle. This can be done by developing a pre-bedtime ritual, going to bed only when sleepy, and when unable to fall asleep (or go back to sleep) after 20 minutes, leave the bedroom and return when sleepy. Maintain a regular wakeup time and try not to nap. If you take a nap, limit the nap to 30 minutes and not after 3 pm. Use the bed for sleep and sexual activities only. Do not watch television, eat, or read in the bed. The time spent in bed is limited to the amount of time sleeping. Shortening the time in bed causes mild sleep deprivation, leading to more efficient sleep.

Relaxation Therapy

Relaxation therapy includes muscle relaxation, biofeedback, imagery training, hypnosis, and thought stopping. Professionals who specialize in instructing these techniques may be available at local cancer centers or support communities. Patients can learn some of these techniques on their own. Patients may find deep breathing, stretching, meditation or prayer to be relaxing. A warm bath, warm glass of milk or cup of chamomile tea at bedtime can help to induce a restful state. You should not drink alcohol, as it may cause initial tiredness, but then leads to fragmented sleep.

Cognitive Therapy

Cognitive therapy aims to identify and change dysfunctional beliefs and attitudes about sleep and insomnia, which may be
adding to the development of anxiety. These beliefs can include unrealistic sleep requirements, the role of sleep disturbance in daytime impairment, and the usual pattern of insomnia.

**Sleep Hygiene**

Sleep hygiene involves changing current health practices and environmental factors that may interfere with sleep. This includes avoiding caffeine and alcohol for 4 to 6 hours before bedtime, and avoiding heavy or spicy meals before bedtime. Use the bed for sleep and sexual activity only, remove the TV from the bedroom. Keep the sleep environment dark, quiet, cool, and comfortable. People with insomnia tend to look at the clock - this may only worsen anxiety and insomnia. Exercising regularly, as little as 20 minutes, three times a week, can promote better sleep, although this should not be done too close to bedtime.

Create a bedtime routine for yourself. This may involve reading, listening to relaxing music, drinking herbal tea (such as chamomile or lavender), a warm bath or just having some quiet time. When done regularly, this routine will signal to your brain that it is time to go to sleep.

Insomnia is a common issue in patients with cancer and cancer survivors. This problem has only recently received attention from cancer researchers. While research continues, patients should understand the implications of insomnia, experiment with non-pharmacologic treatments, and discuss the problem with their healthcare provider.