**Insomnia**

***Definition***

Insomnia is a symptom, not a disease.  Insomnia describes inadequate quality and/or quantity of sleep that results in difficulty in daytime functioning.  Can be transient/short term (< 3 weeks) or chronic (> 3 weeks).

***Epidemiology***

One-third of adults will experience insomnia in their lifetime. Persistent insomnia occurs in 10% of the population. The incidence increases with age and it is more common in women. There is increased incidence in lower socioeconomic class, divorced, widowed, separated individuals and increased with recent stress, ETOH abuse, drug abuse and depression.

**1. Acute Insomnia:** Duration of 4 weeks or less.

**2. Chronic Insomnia:** Duration of 4 weeks or more.

**3. Primary Sleep Disorder:** A primary or intrinsic sleep disorder is one that arises out of the physiological processes of sleep.

**4. Secondary Insomnia**: Secondary insomnia refers to difficulty initiating and/ or maintaining sleep that occurs as a result of or co-morbidly in conjunction with a medical, psychiatric or psychological process.

**5. Primary Insomnia**: A disorder of somatized tension and learned sleep preventing associations that results in a complaint of insomnia and consequent daytime impairment.

**6. Daytime Impairment:** The daytime consequences of insomnia include dysphoric states such as irritability, impaired cognition such as poor concentration and memory, and daytime fatigue.

***Criteria***

One of:

Difficulty initiating sleep (initial insomnia)

Difficulty maintaining sleep (middle insomnia)

Waking too early

Feeling of insufficient or non-restorative sleep

Occurs despite adequate opportunity and circumstance for sleep

Impaired daytime function

***Etiology of Transient Insomnia***

1.      Change in environment

2.      Jet lag

3.      Shift work

4.      Excessive noise

5.      Uncomfortable room temperature

6.      Stressful events

7.      Acute medical or surgical illness

8.      Stimulant medications

***Sleep history***

Remember to take history from both patient and patient’s bed partner.

Onset, frequency, duration, severity, alleviating/aggravating factors.

Drug use, ETOH use, Medications, PMH (pain issues, neurological disorders), psychiatric history, depression screening, snoring, irregular breathing, limb movement or jerking, talking in sleep, nightmares, sleepwalking.

Consider having patient complete a sleep log for 2 weeks.  Record bedtime, time to falling asleep, number of times up in the night, rising time, how rested they felt, number of naps etc…

***Investigations***

*Polysomnography*, *Actigraphy*, *Multiple Sleep Latency Test, Neuroimaging*-**mostly unnecessary.**

**Red Flags**

- Major depressive episode

- Generalized anxiety or panic disorder

- Excessive daytime sleepiness (unexpected or irresistible sleepiness) resulting in imminent risk to the patient and/or society

- Substance abuse

**Risk Factors**

**Age**: Older age

**Gender**: females are 1.2 to 1.5 times more likely to report insomnia than males.

**Socioeconomic Status**: Unemployed people and those with less education are at higher risk for insomnia.

**Other**: People who are separated or divorced, the medically ill and those with depression, anxiety, or substance abuse problems are also reported to have a higher prevalence of insomnia relationship between insomnia, major depression, generalized anxiety disorder and substance abuse

**Primary Sleep Disorders**

**-**Obstructive sleep apnea/sleep disordered breathing; common symptoms of sleep apnea are loud snoring, choking or gasping episodes during sleep, and excessive daytime sleepiness that the patient may attribute to poor sleep.

-Movement disorders in sleep- Periodic limb movements in sleep (PLMS)

- Restless legs syndrome- Periodic leg movement disorder commonly coexists with restless legs syndrome. Iron deficiency, renal failure, pregnancy, and SSRI antidepressants are commonly associated with restless legs syndrome.

**-**Circadian rhythm disorders-Delayed and advanced sleep phase, shift work sleep disorder and jet lag are the most common circadian rhythm sleep disorders.

**Secondary/Co-morbid Insomnia**

• **Psychiatric Disorders,**

**Medical disorders**

-- Chronic Pain Syndromes

-- Menopause

-- Gastroesophageal Reflux and Peptic Ulcer Disease

-- COPD/Asthma

-- Benign Prostatic Hyperplasia

**Medications**

-- Nicotine, nicotine patches

-- Caffeine, caffeine containing medications (e.g. Anacin)

-- Antidepressants (SSRIs, SNRIs, bupropion, opiates)

-- Corticosteroids

-- Central nervous system stimulants and related drugs

· dextroamphetamine

· methylphenidate

· atomoxetine

-- Bronchodilators

-- Pseudoephedrine

Alcohol

TX

**Non-pharmacologic**

Non-pharmacologic therapies are effective in the management of primary insomnia especially when behavioural and cognitive techniques are used in combination. Behavioural techniques include sleep hygiene, sleep consolidation, stimulus control, and relaxation therapies. Cognitive techniques include cognitive behavioural therapy (CBT).

**Behavioural Therapies**

Sleep hygiene

Avoid caffeine after lunch and alcohol within 6 hours of bedtime

• Avoid nicotine close to bedtime or during the night

• Engage in moderate physical activity but avoid heavy exercise within 3 hours of bedtime

• Avoid consuming excessive liquids or a heavy evening meal before bedtime

• Maintain a quiet, dark, safe, and comfortable sleep environment. Minimize noise and light

• Avoid a bedroom that is too hot or too cold

• Avoid watching/checking the clock

**Sleep consolidation**

Devise a “sleep prescription” with the patient: a fixed bedtime and wake time

• Determine the average total sleep time

• Prescribe the time in bed to current total sleep time plus 30 minutes

• The minimum sleep time should be no less than 5 hours.

• Set a consistent wake time (firmly fixed 7 days/week)

• The bed time is determined by counting backwards from the fixed wake time (For example:

a patient estimates the total sleep time to be 5-6 hours/night, the total time in bed is 8 hours/night for a sleep efficiency of 5.5/8 = 68%. The prescribed total sleep time would be 6.5-7 hours/night, if the wake time is 6AM then the prescribed bedtime is 11-11:30 PM)

• For the first 2-4 weeks these times should remain consistent and the clinician should monitor the patients adherence to the program with sleep logs (see sleep log attachment)

• Advise the patient that napping will reduce the depth and restorative quality of sleep the following night

• Once the patient is sleeping for >85 to 90 percent of the time spent in bed for two consecutive weeks, then the amount of time spent in bed is slowly increased by 15- 30 minute every week. If sleep efficiency of 90 percent is maintained, then therapy is successful.

The average total sleep time for most people is between 6 and 8 hours a night.

**Stimulus control**

• Eliminate non-sleep activities in the bedroom. Remove the TV and computer from the bedroom

• Use the bed and bedroom only for sleep and sex

• Go to bed only when sleepy, even if later than prescribed sleep schedule

• Get out of bed if not able to sleep within 15-20 minutes - go to another room and relax.

Return to bed only when sleepy

• Set alarm for agreed upon wake time

• Avoid excessive napping during the day - a brief nap (15-30 minutes) during the midafternoon can be refreshing and is unlikely to disrupt nocturnal sleep

**Anxiety Reducing Strategies and Relaxation therapies**

• Avoid arousing activities before bed (late night phone calls, work, watching TV

• Designate at least one hour before bedtime to help unwind from the day’s stresses – dim light exposure and engage in relaxing activities

• Relaxation techniques such as deep breathing, light exercise, stretching, yoga and relaxation CDs can help promote sleep

• Stress management skills training and relaxation therapies such as progressive muscle relaxation, biofeedback, hypnosis, meditation, imagery training, are usually provided by a trained professional (through books, videos, or face-to-face sessions)

• Techniques for managing worry can be useful for some patients. This may include keeping a worry journal, scheduling worry time, challenging worried thinking, or seeking professional help

Pharmacotherap **Principles of Treatment**

Pharmacotherapy is generally recommended at the lowest effective dose as short-term treatment lasting less than 7 days

1st line- Zopiclone 3.75-7.5 mg

2nd line- Trazodone 25-50 mg

Variable evidence- L’Tryptophan, valerian, melatonin

References:

Up to date

Canadian guidelines