Clinical Resource Guide: Managing Insomnia in Hospice

INTRODUCTION TO INSOMNIA

Sleep is an active, dynamic, and complex physiological function. It is also essential, not only to well-being, but to sustaining life. Adequate physical comfort, an acceptable sleeping environment, an intact central nervous system function, and the relative absence of physiological and psychological distress are necessary for sleep. Thus, it is understandable how sleep disturbances could occur at a higher prevalence in the hospice setting. Many hospice patients have either experienced a relatively recent life-limiting diagnosis or have learned that a progression has occurred with few treatment options remaining. Additionally, prolonged periods of sleep deprivation may result in progressive fatigue, concentration impairment, irritability and/or depression, all negatively contributing to the patient's quality of life and sense of well-being. This Pharmacist Corner will provide recommendations to improve management of insomnia (or other sleep disturbances) in the hospice setting with the intent to optimize patient quality of life.

Pharmacist Corner Objectives

1.) Assess for insomnia taking into account contributing, reversible contributing causes
2.) Develop a treatment plan to address insomnia, considering both nonpharmacologic and pharmacologic treatment options
3.) Recommend a monitoring plan and determine when to adjust therapy as indicated

INSOMNIA DEFINED AND SYMPTOM PREVALENCE

According to the International Classification of Sleep Disorders, insomnia is present if the patients reports the following symptoms:

- Difficulty initiating sleep, difficulty maintaining sleep or waking up too early despite adequate opportunity and circumstances for sleep
- Daytime impairment resulting from the sleep difficulties

These daytime consequences may include fatigue, drowsiness, decreased concentration, and/or irritability. Insomnia may be experienced by the patient as decreased total hours of sleep, difficulty falling asleep, difficulty staying asleep, poor sleep quality, or an alteration in sleep schedule not conducive to patient's lifestyle.

Sleep disorders are a frequent complication of certain medical illnesses and/or the pharmacologic treatments of these illnesses and can occur in up to 70% of patients with advanced cancer. Beyond feeling tired, sleep problems have been associated with changes in mood, decreased pain tolerance, and a decreased quality of life.

ASSESSMENT

A full assessment should be completed to better understand the patient's individual sleep characteristics and to evaluate for factors that may contribute to sleep disturbances which can potentially be addressed and reversed.

COMMON FACTORS CONTRIBUTING TO INSOMNIA				
SYMPTOMS				
Depression	At least 90% of depressed patients have abnormal sleep patterns, and is a significant cause of sleep pathology in the terminally ill			
Uncontrolled Pain	Contributes to a lack of sleep in up to 60% of patients; sleep deprivation lowers the pain threshold			
Anxiety/Fear	May be directly related to the illness or treatment and is often associated with pain. Early delirium, withdrawal or respiratory symptoms can contribute to anxiety.			
Restless Legs Syndrome	May be associated with potentially manageable causes such as medication sedative hypnotic withdrawal or peripheral neuropathy			
MEDICATIONS				
Steroids	**Psychotropic Agents**	**SSRI Therapy**	**Sedative Withdrawal**	**Analgesic Withdrawal**
ENVIRONMENTAL FACTORS				
Nocturnal Disruption	Resulting from excessive noise, vital checks, shift change assessments when admitted to a hospital or facility			
Sleep/Wake Disorder	Disruption of normal schedule resulting in excessing napping during the day and nighttime wakefulness			
Substance Use	Use of caffeine, nicotine, other stimulants, or alcohol may contribute to sleep disturbances.			

A full assessment to determine the individual's sleep characteristics is necessary to identify and address all potential reversible causes and to help determine the most appropriate interventions to trial.

While objective measurements, such as polysomnography or wrist actigraphy can be used in the assessment of insomnia, in the hospice setting subjective measurements are most often used. Subjective measurements include a patient interview, self-report sleep questionnaires or sleep diaries to form a sleep history. Some key components of a comprehensive sleep history include:

KEY COMPONENTS OF A COMPREHENSIVE SLEEP HISTORY	
Sleep Hygiene	Has the patient recently altered their bedtime routine? ▪ Change in bedtime. ▪ Use of sleep aids ▪ Stimulation prior to sleep (use of phone or TV viewing in bed)
Sleep Chronology	Evaluate the onset, pattern and duration of sleep ▪ Ask if the patient has difficulty initiating sleep, staying asleep or both ▪ Ask about multiple nocturnal or early morning awakenings o Frequent awaking is often due to medication o Early awakening may indicate unmanaged depression
Sleep Environment	Assess the physical space in which sleep occurs ▪ Are any environmental factors preventing sleep? o Light o Noise o Odors ▪ Adjusting to patient preferences can be particularly important when a patient has moved to an unfamiliar setting
Physical Symptoms	Are physical symptoms interfering with sleep? Some common culprits include ***cough, pain*** and/or ***dyspnea***.
Spiritual Concerns	Fears about dying may cause a patient to be afraid of falling asleep or not wanting to turn off the lights.

APPROACH TO MANAGING INSOMNIA

In the absence of any obviously reversible causes, the aim of treatment is to achieve enough restorative sleep to promote daytime alertness, concentration, and energy to participate in activities that promote quality of life. Of note, relatively few trials on interventions for insomnia

have been performed in the hospice and palliative care space, and most are extrapolated from work with patients with insomnia but without a life-limiting illness.

NONPHARMACOLOGIC THERAPY FOR INSOMNIA

NONPHARMACOLOGIC TREATMENT STRATEGIES FOR INSOMNIA IN THE HOSPICE SETTING	
BEHAVIORAL TREATMENTS	
Relaxation Therapies	The patient can be taught to use various relaxation techniques just prior to bedtime, such as *progressive muscle relaxation, guided imagery, mediation, diaphragmatic breathing, or hypnosis*
Sleep Hygiene Pearls	Keep a regular schedule- going to bed and waking at same times each day
	Avoid long daytime naps whenever possible
	Avoid or limit alcohol and caffeine intake
Stimulus Control Therapy	Focuses on establishing a connection between the bed and sleep, emphasizing not watching TV, reading in bed, or using bedroom for any other activity than sleep or sexual activity
Cognitive Behavioral Therapy	Multi-component psychotherapy which includes sleep restriction, stimulus control and cognitive therapy with focuses on identifying unwanted feelings or thoughts and replacing them with more positive thoughts
PHYSICAL TREATMENTS	
Exercise	Although the data is limited, studies in patients with advanced age suggest significantly improved sleep with low impact aerobic exercise
Tai Chi	Low-impact, slow-motion exercise during which breathing deeply and naturally, allows for the focusing of attention on your bodily sensations and can be easily adapted for almost anyone, regardless of their physical limitation

PHARMACOLOGIC THERAPY FOR INSOMNIA

The hospice patient may have a varying degree of sensitivity and risk associated with the use of medications commonly used for the management of insomnia due to decreased performance scale scores and/or interacting medication therapy. Therefore, it is important to discuss and understand patient goals and the impact of insomnia on quality of life and results of nonpharmacologic interventions before trialing pharmacologic therapy for insomnia in the hospice patient. Additionally, it is important to note that if a patient has insomnia due to delirium, prescribing zolpidem, or a benzodiazepine, or instead using the OTC diphenhydramine to treat insomnia may contribute to worsening delirium.

Patients with end stage COPD may experience worsening respiratory function when prescribed benzodiazepines, especially if given in combination with an opioid or other CNS depressant.

The approach to selecting a medication to address insomnia should be individualized, considering patient specific factors to select the most effective agent for the patient's insomnia experience.

PHARMACOLOGIC TREATMENT STRATEGIES FOR INSOMNIA IN THE HOSPICE SETTING		
Benzodiazepines: • Effective in providing immediate relief for acute anxiety symptoms • Side effects include sedation, cognitive slowing, and physical dependence		
Medication	**Dosing**	**Notes**
Lorazepam	0.5mg – 1.5mg PO/SL/IV/PR Two to four times/day	▪ Onset of action: 20-30 minutes; duration of action: **6-8 hours** ▪ Available as a concentrated liquid ▪ Preferred over alprazolam in patients with hepatic dysfunction
Clonazepam	0.25mg – 2mg PO/SL/PR Two or three times/day	▪ Peak serum level achieved in 20-60 minutes; duration **12 hours** ▪ Scheduling doses may be beneficial in managing persisting symptoms
SEDATING ANTIDEPRESSANTS		
Medication	**Dosing**	**Notes**
Doxepin	3-6mg po QPM PRN	▪ Side effects include dizziness, dry mouth, blurred vision, constipation and urinary retention ▪ May be effective for itch in patients with pruritis and insomnia
Trazodone	12.5-100mg po QPM PRN	▪ Limited data to support use for insomnia ▪ Cochrane review on patients with dementia reported two-thirds of patients treated with trazodone with insomnia at 50mg dose experienced benefit
Mirtazapine	7.5-15mg po QPM	▪ Sedative side effects at lower doses ▪ May provide benefit in patients with anxiety and insomnia
BENZODIAZEPINE RECEPTOR AGONISTS		
Medication	**Dosing**	**Notes**
Zolpidem	5mg – 10mg PO QPM PRN	▪ In patients prescribed opioids, use of zolpidem has been found to increase mortality compared to trazodone
MELATONIN RECEPTOR AGONIST		
Medication	**Dosing**	**Notes**
Ramelteon	8mg po QPM (Give 30 min before bed)	▪ Melatonin receptor agonist ▪ Designed to induce sleepiness and regulate circadian rhythm
OVER THE COUNTER AGENTS		
Medication	**Dosing**	**Notes**
Diphenhydramine	25-50mg po QPM	▪ Increased frequency of anticholinergic, antihistaminergic side effects
Melatonin	3-10mg po QPM	▪ May help induce sleep, limited efficacy noted in refractory insomnia

SUMMARY

The effective management of insomnia in hospice patients requires an intentional and individualized approach often employing some of the pharmacologic and nonpharmacologic treatment strategies outlined in this clinical guide. Please call for a Clinical Pharmacy Consult if you have additional questions!

References:

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