Insomnia Disorder
Elderly Benzodiazepines are Associated with Significant Risk in the Specific Risks of Benzodiazepine Risks of substance use disorders disorder and no co-morbidities

Table 6. Guideline recommendations for patients with insomnia

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<tr>
<td>Benzodiazepines are Associated with Significant Risk in the Elderly</td>
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Risks in elderly patients and patients with dementia
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Risk Reduction Strategy: Tapering and Discontinuing Pharmacotherapy
Figure 9. CBT-I and Successful Benzodiazepine Discontinuation
Consider referral to a sleep disorder specialist
Special thanks to our expert reviewers
References
**Insomnia Disorder**

Identification and management of insomnia disorder is important to reduce risk for additional conditions and promote overall better health. Studies show that insomnia is a risk factor for hypertension, alcohol use, depression, psychiatric morbidity, suicidality, and increased mortality. [1-10]

It has also been shown to reduce productivity at work, increase absenteeism, and reduce quality of life. [2, 14]

**Background**

Insomnia disorder involves a persistent (occurring for at least three nights per week for at least three months) difficulty with sleep initiation, duration, consolidation, or quality that occurs despite adequate opportunity and circumstances for sleep, and results in some form of daytime impairment. [2, 11]

Insomnia is the second most common overall complaint reported in general primary care settings (after pain), with about 30–50% of adults reporting sleep trouble in a given year. [2]

---

Figure 1. Stepped Care for Management of Insomnia Disorder

1. Identify Veterans who may be suffering from insomnia disorder
2. Diagnose insomnia disorder, if present
3. Provide or refer patient to cognitive behavioral therapy for insomnia (CBT-I)
4. Consider referral to sleep disorder specialist

Complications of Insomnia

- Psychological problems
- High blood pressure
- Risk of heart disease
- Obesity
- Risk of diabetes

Studies show that insomnia is a risk factor for hypertension, alcohol use, depression, psychiatric morbidity, suicidality, and increased mortality. [1-10]

Figure 1. Stepped Care for Management of Insomnia Disorder

- Consider referral to sleep disorder specialist
- Provide or refer patient to cognitive behavioral therapy for insomnia (CBT-I)
- Identify Veterans who may be suffering from insomnia disorder
- Diagnose insomnia disorder, if present
Identify Veterans who may be suffering from insomnia disorder

- Ask Veterans if they are having trouble sleeping, such as: difficulty getting to sleep or maintaining sleep, suffering from early-morning awakening, having poor quality sleep, or excessive daytime sleepiness.

- The Insomnia Severity Index (ISI) is a useful screening tool that can be found in MyHealtheVet and in CPRS under the Mental Health Assistant. [12, 13]

Table 1. Brief summary of the ISI[13]

<table>
<thead>
<tr>
<th>Rate the current severity of your insomnia problem(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Difficulty falling asleep?</td>
</tr>
<tr>
<td>2 Staying asleep?</td>
</tr>
<tr>
<td>3 Waking up too early?</td>
</tr>
<tr>
<td>4 Satisfied with your sleep pattern?</td>
</tr>
<tr>
<td>5 How noticeable is the impairment in your quality of life from your sleep problem?</td>
</tr>
<tr>
<td>6 How worried are you about your sleep pattern?</td>
</tr>
<tr>
<td>7 How much does your sleep problem interfere with your daily functioning (e.g., daytime fatigue, mood, ability to function at work/daily chores)?</td>
</tr>
</tbody>
</table>

Scores from each question can be added to determine level of insomnia (e.g., 0–7 = No clinically significant insomnia; 22–28 = Severe clinical insomnia)
Clinical Pearl

Alcohol is often used by Veterans to induce sedation; however, over time, its effect on sleep latency (time it takes to fall asleep) diminishes while sleep disruption persists. This use can lead to a vicious cycle of daytime dysfunction, early morning awakening, insomnia, and increased alcohol use. \[14-16\]

Identify Veterans who may be suffering from insomnia disorder

Figure 2. Acute Insomnia to Insomnia Disorder

Acute insomnia symptoms can occur with various medical and psychiatric comorbidities and will sometimes go away on their own with management of the comorbidity or good sleep hygiene (please see the Quick Reference Guide for sleep hygiene guidance).

- If acute insomnia persists for three or more months at a frequency of at least three times per week and meets the above criteria, it is considered insomnia disorder and requires treatment. \[1, 2, 11\]
Identify Veterans who may be suffering from insomnia disorder

Figure 3. Common causes of sleep disturbance* [1, 6, 17]

<table>
<thead>
<tr>
<th>Medical comorbidities</th>
<th>Sleep disorders</th>
<th>Psychiatric disorders</th>
<th>Substance use</th>
<th>Medications</th>
<th>Activities/ Psychosocial</th>
</tr>
</thead>
<tbody>
<tr>
<td>BPH</td>
<td>Sleep apnea</td>
<td>Depression</td>
<td>Drugs and alcohol</td>
<td>Certain antidepressants (e.g. bupropion, SSRIs/SNRIs)</td>
<td>Work schedule</td>
</tr>
<tr>
<td>GERD</td>
<td></td>
<td>Anxiety</td>
<td>Caffeine</td>
<td>CNS stimulants</td>
<td>Travel</td>
</tr>
<tr>
<td>Pain</td>
<td></td>
<td>PTSD</td>
<td>Nicotine</td>
<td></td>
<td>Sleep environment</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Allergies</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Migraines</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>COPD</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heart disease</td>
<td>Heart disease</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diabetes</td>
<td>Sleep apnea</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hypertension</td>
<td>Sleep apnea</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Restless legs syndrome</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Sleep disorders</td>
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<td>Sleep disorders</td>
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<td>Sleep disorders</td>
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<tr>
<td></td>
<td>Sleep disorders</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

*This list is not all inclusive. BPH = Benign prostatic hyperplasia, CNS = central nervous system, COPD = chronic obstructive pulmonary disease, GERD = Gastroesophageal reflux disease, PTSD = Posttraumatic stress disorder, SNRIs = Selective serotonin and norepinephrine reuptake inhibitors, SSRIs = Selective serotonin reuptake inhibitors
Diagnose Veterans who may be suffering from insomnia disorder

Make the diagnosis, if present

If the sleep disturbance does not resolve, it is important to evaluate the patient for insomnia disorder and make the diagnosis if insomnia disorder is present.

Table 2. Symptoms and patient behaviors in insomnia disorder\(^{[11]}\)

<table>
<thead>
<tr>
<th>Symptoms of insomnia disorder</th>
<th>Example patient behaviors</th>
<th>Possible daytime complaints</th>
</tr>
</thead>
</table>
| Difficulty initiating sleep  | • Laying in bed for hours but unable to fall asleep  
• Drinking alcohol or using drugs in an attempt to fall asleep | • Difficulty concentrating  
• Difficulty maintaining attention  
• Difficulty remembering things |
| Difficulty maintaining sleep | • Waking up multiple times per night due to any number of identifiable factors and/or for unknown reasons  
• Waking one or more times per night and remaining awake for an extended period of time | • Reduced productivity at work or school  
• Daytime sleepiness  
• Low energy or fatigued |
| Early morning awakening with inability to return to sleep | • Waking up hours before the alarm is set to go off and being unable to fall back to sleep | • Mood disturbances (such as mood lability or irritability) |

*Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5) criteria require a predominant complaint of dissatisfaction with the quality or quantity of sleep, associated with one (or more) of the above symptoms. These symptoms result in clinically significant distress or impairment in social, occupational, educational, academic, behavioral, or other important areas of functioning; problem occurs despite ample opportunity to sleep.

---

If the patient suffers from insomnia disorder, make the diagnosis and offer treatment.\(^{[17, 18]}\)
Managing insomnia disorder

Cognitive behavioral therapy for insomnia (CBT-I) is recommended as the first line treatment for insomnia disorder.\[1, 5, 14, 19, 20\]

Patients often develop perpetuating behavioral and psychological factors that can lead to further wakefulness, negative expectations, and distorted beliefs about their insomnia. CBT-I can be used to address these factors.

**Factors that perpetuate sleep problems**\[19, 21-23\]

- Irregular bedtime and/or waketime
- Spending excessive time in bed trying to sleep
- Avoidance behaviors during waking hours (e.g., cancelling activities out of fear they will interfere with sleep)

Clinical Pearl

All patients with insomnia disorder should adhere to good sleep hygiene.
Managing insomnia disorder

Table 3. Components and aims of CBT-I[^23]

<table>
<thead>
<tr>
<th>Technique</th>
<th>Aims</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stimulus control</td>
<td>If not sleeping, stay out of bed to strengthen bed and bedroom as sleep cues.</td>
</tr>
<tr>
<td>Sleep restriction</td>
<td>Limit time in bed to increase sleep drive and consolidate sleep.</td>
</tr>
<tr>
<td>Relaxation, buffer, worry time</td>
<td>Reduce arousal.</td>
</tr>
<tr>
<td>Cognitive restructuring</td>
<td>Address thoughts and beliefs that interfere with sleep and adherence.</td>
</tr>
<tr>
<td>Circadian rhythm entrainment</td>
<td>Shift or strengthen the circadian sleep/wake rhythm.</td>
</tr>
<tr>
<td>Sleep hygiene</td>
<td>Address substances, exercise, eating, environment.</td>
</tr>
</tbody>
</table>

Offering CBT-I to Veterans
Veteran acceptance of CBT-I may be a challenge as not all Veterans may be willing or able to participate; however, many Veterans prefer to use approaches other than medications when they are made available to them.

CBT-i Coach is an app designed for people who are engaged in Cognitive Behavioral Therapy for Insomnia with a healthcare provider, or who have experienced symptoms of insomnia and would like to improve their sleep habits.

✓ Understand what options are available for access to CBT-I

✓ Consider a shared decision-making approach to discuss this first-line treatment option with Veterans.^[24]
## Managing insomnia disorder

### Table 4. Frequently asked questions and answers regarding CBT-I[^23]

| What does CBT-I require from the Veteran? | ✓ Attend six 50 to 60-minute weekly individual or 90-minute group therapy sessions (though some people may improve with fewer sessions or need more sessions).  
✓ Complete a daily sleep diary and follow recommended treatment guidelines between sessions.  
✓ Participate in evaluation of progress and determining whether initial goals for treatment were achieved. |
|---|---|
| For which patients is CBT-I most helpful? | CBT-I can be tailored for Veterans with varied presentations, including those involving comorbidities.  
• There is empirical support for CBT-I for the treatment of those with insomnia and:  
  * A history of substance use disorder (not active abuse/use)  
  * Psychiatric conditions such as PTSD, depression, bipolar disorder, anxiety disorders, and psychotic disorders  
  * Chronic pain conditions  
  * Other sleep disorders, such as sleep apnea |
| Are there ever times when CBT-I is not indicated? | Yes. Some examples are if the Veteran:  
• Does not meet criteria for insomnia disorder  
• Is working night or rotating shifts  
• Has poorly controlled seizure disorders or severe, unstable psychiatric symptoms. |
| Can CBT-I be done in Primary Care? | CBT-I can be offered in Primary Care Mental Health Integration (PCMHI) settings and is typically offered as a “brief” course of treatment 4 sessions lasting 15-45 minutes per session |

[^23]: CBT-I: Cognitive Behavioral Therapy for Insomnia.
Managing insomnia disorder

**Figure 4. Shared Decision-Making for CBT-I**[24]

Tips and example conversation starters

**S**
Seek your patient’s participation

“Now that we’ve identified the problem, let’s think about what to do next. I’d like us to make this decision together.”

“There is good information about different treatment options I’d like to discuss with you before we decide on a treatment plan.”

**H**
Help your patient explore and compare treatment options

“What treatment options are you familiar with for insomnia?”

“Here are some options we can consider…”

*Discuss available treatment options and clearly communicate risks and benefits of each option. Use simple visual aids when possible.*

**A**
Assess your patient’s values and preferences

“As you think about your options, what’s important to you?”

“When you think about possible risks, what matters most to you?”

*Use open-ended questions, acknowledge the values and preferences that matter to your patient.*

**R**
Reach a decision with your patient

“Would you like more time to think about your treatment options?”

“What questions do you have for me about these options?”

“Considering what we’ve discussed, which treatment option do you think is right for you?”

**E**
Evaluate your patient’s decision

“Let’s plan on reviewing this decision at your next appointment.”

“If you don’t feel like your symptoms are improving, please schedule a follow-up visit so we can discuss the current approach.”

*Patient buy-in is essential!*

Please remember to reach out to your local academic detailer to discuss the challenges you are encountering in your practice. They are available to partner with you to address your challenges, connect you with local resources, and help improve the care of Veterans.

*Provide or refer Veterans with insomnia disorder to CBT-I*
Managing insomnia disorder

Other Clinical Considerations: Pharmacotherapy
If the patient has completed CBT-I but still suffers from insomnia, or if CBT-I is not a good option for that patient, a short pharmacotherapy treatment period of 2 to 4 weeks of intermittent dosing may be considered. CBT-I can be considered at any point in treatment.

Clinical Pearl
A 30-day prescription with refills is not needed as extended use is discouraged.

Clinical Pearl
Managing insomnia disorder

When pharmacotherapy is used, it is important to consider various factors such as:

- Symptom pattern (e.g., sleep onset or sleep maintenance difficulties)
- Treatment goals and patient preference
- Past treatment responses
- Availability of other treatments
- Comorbid conditions and contraindications
- Concurrent medication interactions
- Potential adverse effects

There are several FDA-approved medications for insomnia; however, most trials are industry sponsored, raising concerns about publication bias.

- Low confidence regarding the overall estimation of risks versus benefits of medications used for insomnia disorder.
- Potential benefits of medications on sleep quality and daytime function should be balanced against the risk of side effects as well as physical and psychological addiction with long-term use.
## Managing insomnia disorder

### Table 5. FDA-Approved Agents for Insomnia

<table>
<thead>
<tr>
<th>Listed on the VA National Formulary (VANF)</th>
<th>Not currently listed on VANF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doxepin</td>
<td>Ramelteon</td>
</tr>
<tr>
<td>Eszopiclone</td>
<td>Suvorexant</td>
</tr>
<tr>
<td>Temazepam*</td>
<td></td>
</tr>
<tr>
<td>Zaleplon*</td>
<td></td>
</tr>
<tr>
<td>Zolpidem IR, CR*</td>
<td></td>
</tr>
</tbody>
</table>

*Prior Authorization-Facility (PA-F) medications that are formulary, but require prior approval at the facility level before dispensing.

### Table 6. Guideline recommendations for patients with insomnia disorder and no co-morbidities \(^2, 27\)

Please note: This figure is based on guidelines that do not consider individual patient characteristics such as comorbidities or drug interactions.

<table>
<thead>
<tr>
<th>Medication* (listed in alphabetical order)</th>
<th>VA/DoD 2019 CPG Strength of Recommendation</th>
<th>Type of Insomnia</th>
<th>AASM Guideline Strength of Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diphenhydramine</td>
<td>Weak against</td>
<td>Sleep onset and/or sleep maintenance insomnia</td>
<td>Not Recommended</td>
</tr>
<tr>
<td>Doxepin</td>
<td>Weak for (3 or 6 mg)</td>
<td>Sleep maintenance insomnia</td>
<td>Weak Recommendation</td>
</tr>
<tr>
<td>Eszopiclone</td>
<td>Weak for</td>
<td>Sleep onset and/or sleep maintenance insomnia</td>
<td>Weak Recommendation</td>
</tr>
<tr>
<td>Ramelteon</td>
<td>Neither for nor against</td>
<td>Sleep onset insomnia</td>
<td>Weak Recommendation</td>
</tr>
<tr>
<td>Suvorexant</td>
<td>Neither for nor against</td>
<td>Sleep maintenance insomnia</td>
<td>Weak Recommendation</td>
</tr>
<tr>
<td>Temazepam</td>
<td>Weak against</td>
<td>Sleep onset and/or sleep maintenance insomnia</td>
<td>Weak Recommendation</td>
</tr>
<tr>
<td>Zaleplon</td>
<td>Weak for</td>
<td>Sleep onset insomnia</td>
<td>Weak Recommendation</td>
</tr>
<tr>
<td>Zolpidem</td>
<td>Weak for</td>
<td>Sleep onset insomnia and/or sleep maintenance insomnia</td>
<td>Weak Recommendation</td>
</tr>
</tbody>
</table>

*VA/DoD 2019 CPG considers kava “strong against” and chamomile, melatonin, and valerian “weak against”; AASM = American Academy of Sleep Medicine; CPG = Clinical Practice Guideline
When selecting a medication to use for a patient with insomnia, we often find ourselves with only a few FDA-approved medications, most of which have significant risks for many Veterans and weak evidence to support their use. Consider the following examples:

1. **Risks of substance use disorders**
   Benzodiazepines are widely acknowledged to cause physical dependence, with withdrawal effects possibly seen within as little as 4-6 weeks of continued therapy, and can cause addiction in some.\[28\]

   - 58-100% of patients prescribed benzodiazepines on a chronic basis became physically dependent.\[23\]
   - 50% of patients with substance use disorder history will develop benzodiazepine use disorder.\[23\]
   - 5-10% of patients newly started on benzodiazepines develop a substance use disorder.\[24\]
   - Benzodiazepines are often not the primary substance abused, and when combined with other substances, can have fatal consequences.\[25\]

2. **Risks in patients with Posttraumatic Stress Disorder**
   Benzodiazepines are ineffective for the treatment and prevention of PTSD and any potential benefits are outweighed by the risks.\[29-31\]

   - Specific Risks of Benzodiazepine Use in PTSD
     - Increased Risk of Substance Use
     - Increased Aggression
     - Difficult Withdrawal
     - Increased Risk of Depression
     - Increased PTSD Severity
     - Decreased Efficacy of Trauma Focused Psychotherapy

---

**Benzodiazepine**\[29\]
3. Risks in elderly patients and patients with dementia

Sedative hypnotics for the treatment of insomnia have a small magnitude of effect and substantial risk in patients ≥60 years old. \[32\]

Benzodiazepines are Associated with Significant Risk in the Elderly \[32-36\]

FALLS

HIP FRACTURES

SEDATION

COGNITIVE IMPAIRMENT

Benzodiazepines are considered: \[32\]

5-FOLD increase in memory loss, confusion and disorientation \[32-36\]

4-FOLD increase in residual morning sedation

3-FOLD increase in dizziness, loss of balance, and falls

>2-FOLD as likely to be associated with adverse events than improved sleep

Don’t underestimate the risks of some controlled substance medications.
Managing insomnia disorder

Provider perceptions vs reality

This is NOT TRUE

When surveyed about benzodiazepine use, prescribers underestimate the risks in their geriatric patients.\(^{37}\)

In general, avoid benzodiazepines if the patient:

- Has a substance use disorder
- Has PTSD
- Has a chronic respiratory disease (e.g., sleep apnea)
- Has a history of traumatic brain injury
- Has dementia or is elderly
- Is receiving other CNS depressants such as opioids

Some Provider Perceptions include:

- A stable dose of benzodiazepine means that it is safe and effective.
- Attempts to discontinue will fail.

Figure 5. Weighing the potential risks versus benefits of medication use \(^{38}\)
Available evidence does not examine the long-term risks of tolerance, withdrawal, difficulty with discontinuation, and addiction in medications used in insomnia disorder. Therefore, we are including information in this brochure about medications without FDA-approved indication for insomnia, but which have some evidence of efficacy and no to low evidence of tolerance and addictive potential.

If you would like to consider a medication that is FDA-approved for insomnia and is not a controlled substance, consider the following options:

1. **Doxepin**
   - FDA-approved for insomnia at low doses (3-6 mg)
   - Better at sleep maintenance than sleep initiation \(^{[39]}\)
   - Does not appear to cause significant issues with tolerance or rebound insomnia \(^{[40-42]}\)
   - Has been shown in various studies to have a side effect profile comparable to placebo \(^{[40, 41, 43-45]}\)
   - Use with caution in patients at high risk for suicide due to risk of toxicity in overdose
Managing insomnia disorder

2. Ramelteon
  - FDA-approved for insomnia
  - Helps decrease sleep latency but has not been shown to have significant effects on sleep maintenance
  - Does not appear to produce rebound insomnia or symptoms of withdrawal with prolonged use

Many medications are used “off-label” for sleep due to their sedating side effects. These medications may be most appropriate when Veterans have co-morbid psychiatric conditions for which alternative medications have been approved.

Many medications have side effects or other risks that may outweigh the benefits in some patients. It is important to weigh the risks and benefits before selecting an agent.
Managing insomnia disorder

**Trazodone**[^39]

- FDA-approved antidepressant

- When used at low doses, it primarily acts at alpha-1, histamine-1, and serotonin-2C and -2A receptors

- There are very few randomized controlled trials evaluating the safety and efficacy of trazodone for insomnia
  
  * A small study suggests that low dose trazodone (50 mg at bedtime) improved sleep and did not impair cognition in patients with Alzheimer's disease[^47]

  * A recent study indicates the risk of falls with low-dose trazodone is not statistically different from that of benzodiazepines in nursing home patients age 66 or older (5.7% trazodone, 6.0% benzodiazepines)[^48]

  * May be an effective sleep aid when used in combination with an antidepressant in patients with depressive disorders[^1, 49]
## Managing insomnia disorder

<table>
<thead>
<tr>
<th>Amitriptyline</th>
<th>Mirtazapine</th>
</tr>
</thead>
<tbody>
<tr>
<td>• FDA-approved antidepressant</td>
<td>• FDA-approved antidepressant</td>
</tr>
<tr>
<td>• Commonly used at low doses for sleep due to histamine-1, muscarinic-1, and serotonin-2C antagonist activity</td>
<td>• At low doses (7.5 – 15 mg), mirtazapine causes sedation primarily by acting as an histamine-1 receptor antagonist[^41]</td>
</tr>
<tr>
<td>• Use caution in patients at risk for suicide due to risk of toxicity in overdose</td>
<td>• When titrated to therapeutic doses (15 – 45 mg), mirtazapine has been shown to block serotonin-2 receptors and produce favorable changes in sleep comparable to zolpidem and zaleplon[^50]</td>
</tr>
<tr>
<td>• Associated with anticholinergic side effects, therefore avoid in elderly patients and others sensitive to these side effects</td>
<td></td>
</tr>
</tbody>
</table>
Managing insomnia disorder

**Gabapentin** [51]
- Has been shown to increase slow-wave sleep (deep sleep), reduce sleep latency, and reduce arousals [52]

- May be used to reduce drinking and improve sleep in patients with alcohol use disorders [51, 53-55]

- Use with caution in patients with a history of substance abuse; potential for psychological and physical dependency exists [56]

**Antihistamines**
(Diphenhydramine, Doxylamine, Hydroxyzine)
- Diphenhydramine and Doxylamine available OTC

- Hydroxyzine may have more profound acute effects on sleep than over-the-counter (OTC) antihistamines [57]

- Associated with anticholinergic side effects, therefore avoid in elderly patients and others sensitive to these side effects

**Figure 7. Gabapentin Use** [51]

*Gabapentin and Effects on Sleep*

<table>
<thead>
<tr>
<th>Gabapentin 1800 mg</th>
<th>Gabapentin 900 mg</th>
<th>Placebo</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean Total Pittsburgh Sleep Quality Index Score</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>N=150</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Melatonin
• Available OTC; however, quality of evidence is considered very low and benefits were approximately equal to harms.\cite{2}
• May be more effective in patients aged 55 and older \cite{58}

Table 7. Sedating Treatment Options for Patients with Co-morbidities\textsuperscript{+}

<table>
<thead>
<tr>
<th>Insomnia</th>
<th>Pain</th>
<th>Depression</th>
<th>Anxiety Disorder</th>
<th>PTSD</th>
<th>Substance Use Disorder</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Gabapentin</td>
<td>Mirtazapine</td>
<td>Hydroxyzine</td>
<td>Hydroxyzine</td>
<td>Hydroxyzine</td>
</tr>
<tr>
<td></td>
<td>TCA</td>
<td>TCA</td>
<td>Mirtazapine</td>
<td>Mirtazapine</td>
<td>Mirtazapine</td>
</tr>
<tr>
<td></td>
<td>Trazodone</td>
<td>TCA</td>
<td>Prazosin*</td>
<td>TCA</td>
<td>Trazodone</td>
</tr>
<tr>
<td></td>
<td>Trazodone</td>
<td>Trazodone</td>
<td>TCA</td>
<td>Trazodone</td>
<td>Gabapentin**</td>
</tr>
</tbody>
</table>

TCA= tricyclic antidepressant (e.g., amitriptyline, doxepin); +Medications are listed in alphabetical order; *May be considered for patients with trauma-associated nightmares; **Gabapentin may be effective in reducing alcohol use as well as improving sleep in patients with Alcohol Use Disorder. Gabapentin should be used with caution due to risks of tolerance and dependence.
Managing insomnia disorder

When managing co-morbidities, ensure the Veteran is being offered or is receiving evidence-based treatment for that co-morbidity (e.g., psychotherapy for PTSD). The schematic below describes risk reduction strategies and recommendations when prescribing medications for insomnia disorder.

**Figure 8. Recommendations for Managing Insomnia Disorder When Medications are Being Considered for Short-term Use** [1, 2, 14, 59, 60]

- Pharmacotherapy should be discussed with patients using a shared decision-making approach, considering:
  * Treatment goals and expectations; safety concerns; potential side effects and drug interactions; other treatment modalities (cognitive and behavioral treatments); potential for dosage escalation; and rebound insomnia.

- Regular follow-up of patients during the initial period, to evaluate the effectiveness, possible side effects, and need for ongoing medication.

- Try to use the lowest effective dosage of medication and taper medication when conditions allow.
  * CBT-I can help facilitate tapering/discontinuation of medicines.

- Patients with severe, refractory, and/or chronic insomnia should receive an adequate trial of CBT-I, consistent follow-up, ongoing assessment of effectiveness, monitoring for adverse effects, and evaluation for previously unidentified causes of insomnia, new onset, or exacerbation of existing comorbid disorders.
Managing insomnia disorder

Risk Reduction Strategy: Tapering and Discontinuing Pharmacotherapy\(^1, 61, 62\)

- Discontinuing treatment, even if only temporarily, is useful as a strategy to:
  * Reduce long-term risk of tolerance and adverse effects
  * Determine if treatment was helpful and whether medication is still needed.
- Tapers can take the form of a dose reduction or a decrease in the number of doses per week.

According to one randomized controlled trial in patients with chronic insomnia, use of CBT-I was strongly associated with being benzodiazepine-free both immediately after treatment as well as at a 12-month follow-up visit.

CBT-I was provided in eight weekly small group sessions. Benzodiazepine tapering was supervised by a physician who met weekly with each participant over the eight-week period.

Results immediately after treatment: 77\% (n=34) vs. 38\% (n=29), 95\% CI 2.4 – 30.9; at 12-month follow-up: 70\% (n=33) vs. 24\% (n=29), 95\% CI 2.5 – 26.6.

Consider medication risk reduction strategies and/or tapering whenever possible.
Managing insomnia disorder

Follow-Up

Consider referral to a sleep disorder specialist

If patients don’t respond to initial treatment, consider referral to a sleep disorder specialist: \(^2\)

- To investigate/evaluate:
  - Clinical suspicion of breathing (sleep apnea) or movement disorders, when initial diagnosis is uncertain
  - Failure of treatment (behavioral or pharmacologic), or
  - Precipitous arousals occurring with violent or injurious behavior
- Consideration of other treatment options or combinations
Managing insomnia disorder

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Special thanks to our expert reviewers:

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Adam Bramoweth, Ph.D.
Janet Dailey, Pharm.D.
Karen Drexler, MD
Philip Gehrman, Ph.D., CBSM
Jennifer Martin, Ph.D.
Macgregor Montano, Pharm.D.

Wilfred Pigeon, MD
Ilene Robeck, MD
Richard Ross, MD, Ph.D.
Michael Saenger, MD, FACP, ADAAPM
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