



# Therapeutic brief

# 18



## Insomnia Management: Effective approaches for a common problem

A large amount of research supports the benefits of non-drug therapies for insomnia.<sup>1-4</sup> Non-drug therapies based on behavioural and cognitive approaches have been shown to be as effective as pharmacotherapy. They generally provide a more sustained benefit, and improve patient and carer satisfaction.<sup>5-8</sup> Overall, about 70% of people with insomnia can benefit from behavioural and cognitive interventions.<sup>9,10</sup>

The aim of this therapeutic brief is to assist in the management of insomnia by discussing:

- assessment of sleep problems and the effective implementation of non-drug therapies
- appropriate use of hypnotic medicines
- discontinuation/reduction of hypnotic medicines in patients who have been taking them long-term.

### Inside

Assessment of sleep problems p2

Non-drug management of insomnia p2

Appropriate use of hypnotic medicines p3

Managing discontinuation p3

What to discuss with your patient p4

[www.dva.gov.au/health/veteransmates](http://www.dva.gov.au/health/veteransmates)

### Key points

- Always assess for underlying medical factors contributing to and associated with insomnia, and treat appropriately
- Behavioural and cognitive approaches are effective in many patients with insomnia, and are recommended as first-line treatment<sup>11</sup>
- Understanding sleep patterns is important to guide the choice of non-drug therapy
- Patients often have unrealistic expectations regarding sleep and need reassurance about the amount of sleep they need
- Sleep improvement after behavioural and cognitive interventions is generally well sustained, while the benefits of hypnotic medicines are usually short-term, due to tolerance
- In elderly people, the risks associated with hypnotics generally outweigh any benefits
- When hypnotic medicines are required, they should only be used short-term and intermittently
- To minimise withdrawal effects, it is usually necessary to taper the hypnotic dose gradually.



## ② Assessment of sleep problems

There are many misconceptions about sleep including the belief that eight hours of sleep each night is “normal.” If a patient does not achieve these expectations, anxiety and behaviours often develop which perpetuate the problem further. Sleep time per night decreases with increasing age, (figure 1) and many experience a shift in body clock.

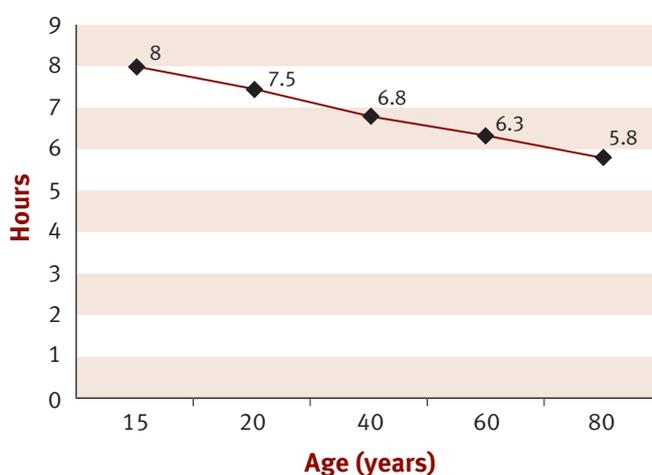
Other factors perpetuating insomnia include:

- misattributions about the causes of insomnia
- expectations of a bad night's sleep
- anxiety or depression
- irregular sleep/wake times
- lack of structure in daily activities
- excessive time spent in bed awake
- day-time naps.<sup>12</sup>

Polysomnographic research suggests many people have inaccurate perceptions of the actual amount of time they spend asleep each night. In some cases brief awakenings from light sleep are misinterpreted, while others are unable to accurately recall the amount of sleep achieved and may report a lack of restorative sleep.<sup>13,14</sup>

It is important to identify and manage possible underlying medical and/or psychiatric problems.<sup>15</sup> The role of caffeine, alcohol, nicotine and other medicines should also be considered.<sup>15</sup> A sleep diary (see insert: figure 4) can be helpful in planning a patient's management. This also allows them to become more actively engaged in their treatment.

**Figure 1: Age-related trends for average total sleep time/night**<sup>16</sup>



## Non-drug management of insomnia

The aim of behavioural and cognitive interventions is to educate patients about good sleep habits, correct misconceptions about sleep, alter maladaptive sleep scheduling and decrease autonomic and physical arousal.<sup>10</sup>

A range of techniques are used, including advice about sleep hygiene (healthy sleep/wake habits) (figure 2) and cognitive therapy (both of which are appropriate for most patients with insomnia), and more specific techniques such as sleep restriction, stimulus control and relaxation therapy (figure 3). There is also some evidence that bright light therapy and regular exercise improve chronic insomnia in older adults.<sup>17,18</sup>

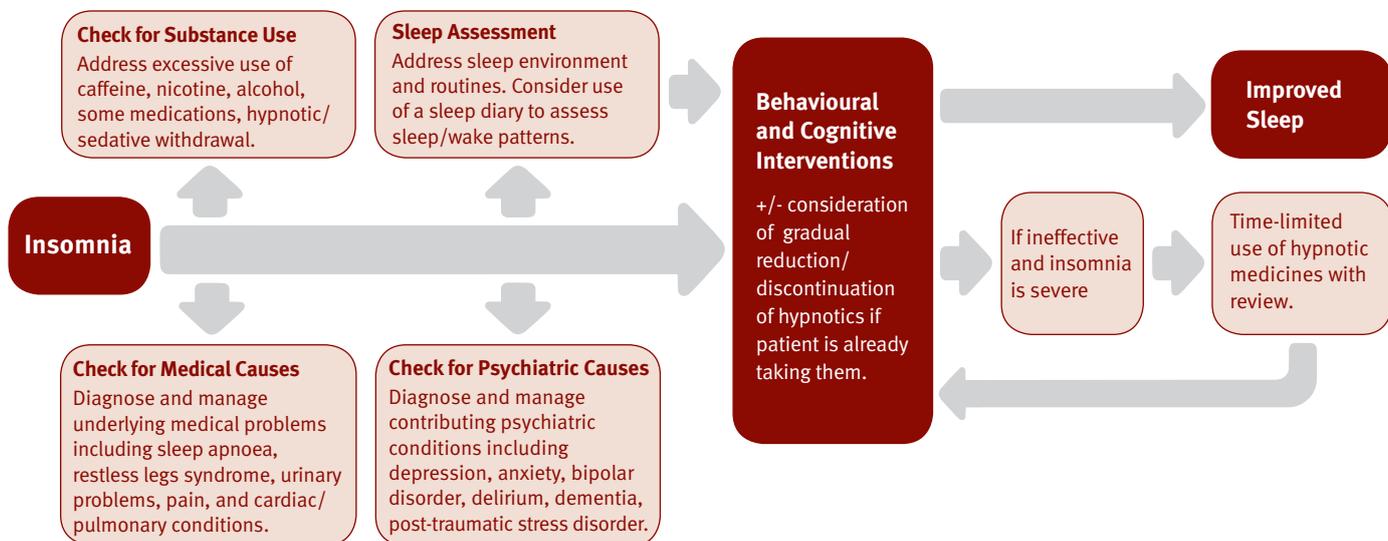
The choice of technique can be largely determined by assessing the sleep/wake history and routines in a sleep diary (figure 4). In some cases, a combination of more than one technique is required and these may be adapted according to factors such as the patient's age, physical and cognitive capacities and social situation.<sup>1</sup> For many patients treatment can be initiated by the general practitioner, however several visits are usually necessary. In some cases referral to a specialist sleep clinic or psychologist is appropriate.

**Figure 2: Recommendations for sleep hygiene**<sup>19</sup>

- ✓ Keep a consistent sleep schedule by retiring and getting up at about the same time each day.
- ✓ Avoid caffeine, cigarettes, stimulants, and alcohol later in the day.
- ✓ Engage in light exercise (but not close to bedtime)
- ✓ Avoid day-time napping, or if this is not possible, limit nap time to no more than 30 minutes and not after 3pm.
- ✓ Eat a light snack if hungry but avoid heavy meals at bedtime and limit fluid intake in the evening.
- ✓ Keep the bedroom quiet and comfortable; avoid bright lights, noise and temperature extremes.
- ✓ Set aside time for relaxing before bed.
- ✓ Only go to bed when you feel sleepy.
- ✓ Use relaxation techniques if you have trouble switching off.
- ✓ Only use your bed for sleep or sex.
- ✓ Avoid watching TV in bed.
- ✓ Tolerate occasional sleeplessness.



## Flow chart: suggested process for insomnia management



## Appropriate use of hypnotic medicines

Although hypnotic medicines are effective for the short-term management of insomnia, their prolonged use can lead to tolerance and dependence. Older people are more vulnerable to the side-effects of hypnotics<sup>24</sup> where their use is associated with increased risk of falls and fractures, motor vehicle accidents,<sup>25</sup> confusion and memory impairment.<sup>26-30</sup>

Many hypnotics can depress respiratory function and are contraindicated in patients with sleep apnoea and other respiratory diseases. A meta-analysis found that the use of benzodiazepines and non-benzodiazepines for insomnia was associated with an increased risk of adverse events. For people aged over 60, these risks outweighed potential benefits.<sup>29</sup>

Hypnotics should not be first line treatment for the management of insomnia. Where they may be required, it is important to ensure that an appropriate hypnotic medicine is used only short-term (usually no more than 2 weeks), intermittently, and at the lowest possible dose.<sup>31</sup> The planned duration should be explained to the patient before initiation. The most commonly prescribed hypnotics are the benzodiazepines and the benzodiazepine receptor agonists (Z drugs) including zopiclone and zolpidem.<sup>30</sup> The long acting benzodiazepines including flunitrazepam and nitrazepam, should not be used in older people.<sup>30</sup> The shorter acting benzodiazepines include temazepam and oxazepam.<sup>30</sup>

Non-benzodiazepine hypnotics (zolpidem and zopiclone), have no advantage in terms of efficacy or adverse effects, when compared to benzodiazepines with relatively short-half lives.<sup>30,32</sup>

## Managing discontinuation

Regular review is important for all patients taking a hypnotic medicine. This is especially important for older patients and those with a history of recent falls, cognitive decline, acute confusion or incontinence, as the use of a hypnotic medicine may be a contributing factor. Cognitive improvement has been demonstrated in older patients after discontinuation of hypnotic medicines.<sup>28,33</sup> Successful discontinuation of hypnotics is possible even in older patients who have been taking them long-term.<sup>28</sup> This is more likely when it is a shared decision.<sup>34</sup>

Suggested steps involved in assisting the patient to discontinue or reduce the dose of hypnotics are summarised as follows:<sup>35,36</sup>

1. Assess the patient's willingness to discontinue or reduce the dose of hypnotics. Agree on a management plan, including timing. Discuss the symptoms associated with withdrawal.
2. Having assessed the actual daily dose, start a discontinuation plan. Aim for gradual dose reduction (about 10-20% per week). Titrate according to severity of withdrawal symptoms. Allow the patient time to stabilise between dose reductions.
3. Review weekly, monitoring sleep, mood and signs/symptoms of withdrawal. Provide support and reassurance and concrete advice about ongoing use of behavioural and cognitive strategies to improve sleep. There is evidence that this can increase success rates.<sup>37,38</sup>
4. If previous attempts have not been successful, reassure the patient that it is worth trying again at another time.<sup>39</sup>

Specialist referral is recommended when complex withdrawal is anticipated, for example patients taking very high doses, or with a history of seizures, psychosis or alcohol/ substance abuse. See also NPS News 4 and 24, available at <http://www.nps.org.au><sup>35,36</sup>

4

## What to discuss with your patient

- > Explain why sleep difficulties are best managed without drugs
- > Reassure that there is considerable variation in the amount of sleep needed by an individual and that less than 8 hours every night is acceptable
- > Advise them about appropriate sleep hygiene measures and other behavioural techniques, and how to put them into place
- > Explain that it may take some time for non-drug therapies to take effect, but offer your support with regular review and encourage them to persist
- > Explain the benefits of not taking hypnotics such as better sleep quality, improved alertness and quality of life, and potential reduction in risk of falls and car accidents
- > Mention that 'rebound insomnia' is possible and reassure them it is the medication withdrawal and not the insomnia causing the problem
- > Explain that hypnotics are only indicated for short-term sleep problems and long-term sleep problems require non-drug management. If hypnotics are required, establish a clear expectation of the planned duration of treatment (usually no more than 2 weeks)
- > Avoid using alcohol as a sleep aide
- > Explain there is no evidence that complementary medicines are effective for sleep problems

## For further information

More information, including interactions and contraindications, is available in the Australian Medicines Handbook 2008 and approved Product Information. See also: <http://www.nps.org.au>

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**Figure 3: Behavioural and cognitive approaches for managing insomnia** <sup>1, 2, 18, 20-23</sup>

Possible sleep pattern disturbance/symptoms		Management technique	Instructions/advice to patient
Patient is excessively worried about their sleep problems and the daytime consequences of not getting enough sleep, or has unrealistic expectations about sleep.	<b>Cognitive therapy</b>	<b>Cognitive therapy</b> aims to replace misplaced beliefs and attitudes about sleep with more adaptive thoughts.	Reassure the patient that getting less than 8 hours sleep per night is common and does not necessarily lead to serious consequences. Techniques for cognitive therapy include de-catastrophising, goal setting, planning coping responses, attention shifting and problem solving.
Patient has poor sleep efficiency and spends excessive time in bed awake, or sleep is broken by frequent awakenings. A typical patient with poor sleep efficiency may sleep only 5-6 out of 8 hours spent in bed.	<b>Sleep restriction</b>	<b>Sleep restriction therapy</b> sets limits on the time spent in bed each night, to ensure that sleep only occurs between the set bedtime and wakeup time. This results in a more efficient, consolidated sleep. Sleep restriction may not be appropriate for patients who are severely sleepy, or have a history of seizures or bipolar disorder. Some very anxious patients may find it difficult to comply with sleep restriction as this technique may heighten their anxiety, further restricting sleep.	Determine the patient's average total sleep time per night. Restrict the time in bed according to the actual sleep time, preferably keeping a fixed wake-up time in the morning. Periodically reassess sleep, gradually increasing the time in bed as total sleep time improves, until the ideal sleep duration is obtained. Less than 5 ½ hours sleep/night is not usually recommended. Enlist support of a partner/relative.
Patient tends to take a long time to fall asleep when first going to bed and when waking during the night. This may result from a learnt association between the bedroom and not being able to sleep. This negative association may have been triggered by a previous stressful event, but the association persists.	<b>Stimulus control therapy</b>	<b>Stimulus control therapy</b> replaces learned negative responses about sleep and the bedroom with positive ones.	Instruct patients to go to bed only when tired and use the bed only for sex and sleep. If unable to fall asleep within about 20 minutes, get up and return to bed only when sleepy. Repeat this step as required through the night. Follow the program for several weeks to establish a regular sleep pattern.
Patient is unable to "switch off" at night.	<b>Relaxation therapy</b>	<b>Relaxation therapy</b> employs various techniques to facilitate sleep. If sleep is impaired by physical tension, progressive muscle relaxation (PMR) may be useful. If sleep is impaired by an overactive mind or worry, mental imagery can help replace troubling thoughts with pleasant ones. Relaxation should be practised during the day and not just at bed-time, to reduce the overall level of anxiety.	<b>Progressive muscle relaxation;</b> tell the patient to focus on each part of the body separately and gradually relax/allow to become heavy. <b>Mental imagery;</b> tell the patient to take a few deep breaths and relax your body, then imagine a pleasant place and try to maintain this image as long as possible. Try to ignore irrelevant thoughts and do not try too hard to fall asleep.
Patient has sleep problems based on a disturbance of circadian rhythm, for example older patients who fall asleep early each evening but awaken in the early hours (advanced sleep phase syndrome).	<b>Bright light therapy</b>	<b>Exposure to bright light</b> in the evening can help reverse this pattern of sleep, by readjusting the circadian rhythm.	For advanced sleep phase syndrome, increase exposure to light later in the day or early in the evening by spending up to an hour outdoors during this time in the summer months. During winter, an artificial light source may be needed (a light box can be obtained from a sleep clinic, or the light from a very bright desk lamp may also help). Avoid morning sunlight or other bright light within 1-2 hours of waking. Encourage light exercise early in the evening as this can also help shift the circadian rhythm by raising body temperature. Avoid strenuous exercise early in the morning.

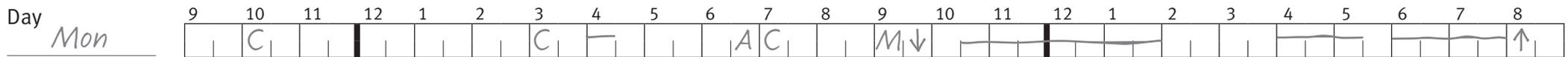


## Figure 4: Sleep Diary

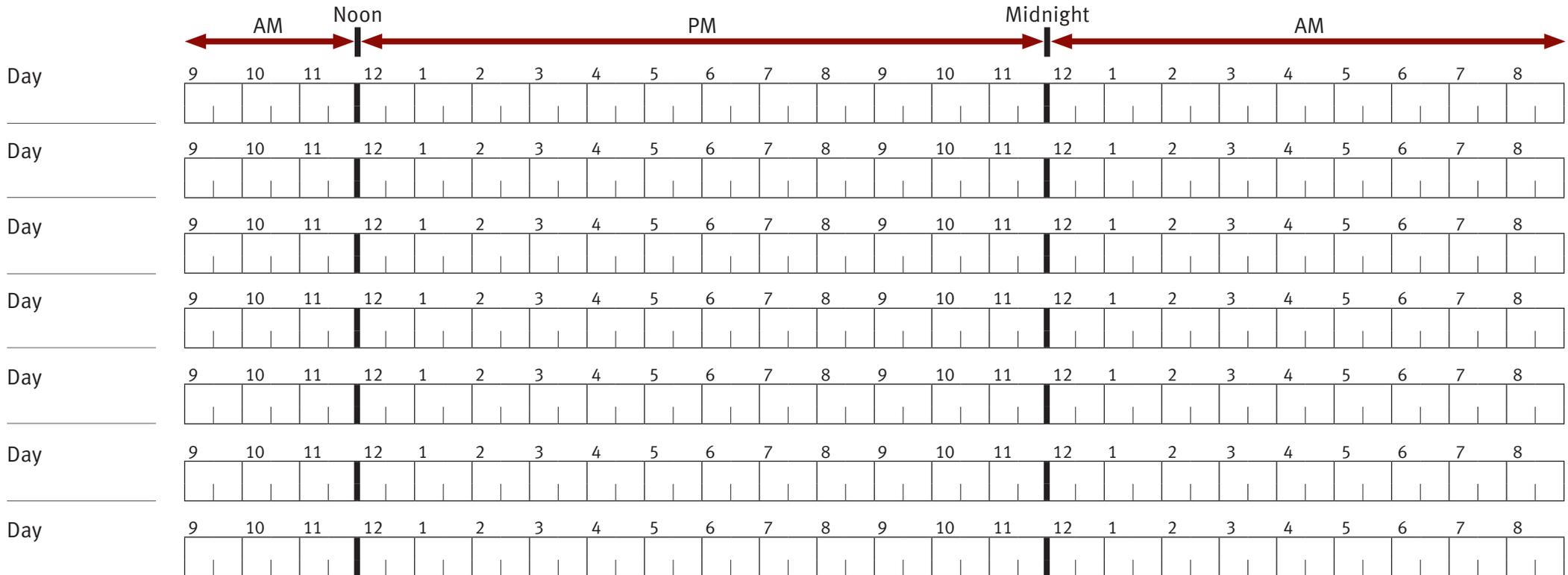
Please complete this diary and show your doctor at your next appointment. Do not return to DVA.

Name: \_\_\_\_\_

Example Graph



Sleep Diary (24 hrs) commences at 9am.



Please list ALL your current medications: \_\_\_\_\_

### How to use the sleep diary

#### Just before going to bed each night:

- Record the day (eg Mon)
- Draw a line on the graph for any day time naps
- Place a **C** for each cup of coffee, tea or cola

- Place an **A** for each glass of alcohol
- Place a **M** when sleep medication is taken
- Place a down arrow (↓) at the time you intend to turn out the lights to go to sleep

#### When you get out of bed:

- Record the time you got out of bed with an (↑)
- Draw a line to show the time you were asleep. Leave gaps to show any time you believe you were awake. Only estimate - Do not clock watch!