

MANAGING INSOMNIA

Chronic insomnia affects many residents in aged care, with impairment of quality of life, health and function. It is often associated with anxiety and depression. Insomnia complaints include difficulty initiating sleep, difficulty maintaining sleep, or early-morning awakening with inability to return to sleep; and a general dissatisfaction with sleep quantity or quality. Untreated insomnia is a risk factor for falls in older people. Cognitive impairment from untreated insomnia may be inappropriately diagnosed as symptoms of early dementia or mild cognitive impairment.

Sleep in older people

Sleep patterns change with age. Older people often experience difficulty falling asleep and increased sleep onset latency (time taken to fall asleep). The duration of light sleep (stages 1 and 2 non-rapid eye movement [REM] sleep) increases, slow wave sleep (stage 3 non-REM sleep) decreases, and REM sleep decreases. Most people cycle through non-REM and REM sleep four or five times per night. Total time asleep decreases in older people. Older people tend to be easily aroused by external stimuli such as noise, light and temperature; and more interrupted with increased arousals and brief awakenings. Older people with depressive symptoms are two to three times more likely to report insomnia. People with respiratory symptoms are also more likely to experience insomnia.

Treatment

The main treatments for insomnia in older people are psychological/behavioural therapies, pharmacological treatment, or a combination of both. Secondary causes of insomnia such as pain and dementia should be treated where possible.

Psychological/behavioural therapies

Psychological/behavioural therapies include:

- Stimulus control
- Sleep restriction
- Relaxation techniques
- Cognitive behavioural therapy
- Mindfulness
- Sleep hygiene principles

Improvements from these therapies tend to last over time, unlike medicines which may cause tolerance and dependence with continued use and withdrawal symptoms. NPS MedicineWise (www.nps.org.au) has extensive information and resources on psychological/behavioural therapies.

Medicines

Medicines used for the management of insomnia include:

- Benzodiazepines e.g. temazepam (Normison, Temaze, Temtabs)
- Z-drugs e.g. zolpidem (Stilnox), zopiclone (Imovane, Imrest)
- Melatonin (Circadin)
- Orexin receptor antagonist e.g. suvorexant (Belsomra)

Other medicines sometimes prescribed for sleep problems include low-dose tricyclic antidepressants, sedating antihistamines, mirtazapine (Avanza) and antipsychotics (e.g. quetiapine). Timing of insomnia symptoms (sleep onset, sleep maintenance, and middle of the night awakenings) can help guide the initial choice of medicine.

Benzodiazepines

The benefit of benzodiazepines is short-lived and efficacy is lost after approximately 14 consecutive nights of use. Temazepam is a short to intermediate-acting benzodiazepine approved as adjunctive therapy in short-term management of insomnia in adults. It may help improve sleep onset and sleep maintenance, but tolerance develops rapidly. The quality of sleep with benzodiazepines tends to be shallow and less restorative. Oxazepam (Serepax) may be useful if concomitant anxiety is present. Starting dose should be low e.g. 7.5mg. Oxazepam is less suitable than temazepam for insomnia due to a slower onset of action. Long-acting benzodiazepines such as diazepam (Valium) and nitrazepam (Mogadon) are inappropriate for insomnia.

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Benzodiazepines are contraindicated in people with sleep apnoea and symptoms of anxiety associated with depression. People prescribed opioids and benzodiazepines are at a substantially higher risk of an emergency room visit or in-patient admission for opioid overdose. Adverse effects of benzodiazepines include drowsiness, dizziness, lethargy, anxiety, loss of balance or difficulty walking and dementia risk. The increased risk of falls and fractures must be considered. In older people, harms of benzodiazepines appear to outweigh benefits. If used, intermittent dosing should be considered.

Z-drugs

Z-drugs seem to offer no advantage over short-acting benzodiazepines in terms of efficacy or safety. Dependence, tolerance and withdrawal symptoms may occur, comparable to benzodiazepines. The dose of zolpidem in older people is 5mg or 6.25mg controlled release immediately before bed. The controlled release tablet may provide a longer sleep period. In older people, zopiclone should be commenced at 3.75mg (half a tablet) at night. Zopiclone has a bitter taste if crushed for administration. Both zolpidem and zopiclone should only be used for short-term treatment in insomnia.

Melatonin

Melatonin is a hormone that initiates and maintains sleep. It may be useful to reduce sleep onset latency and improve sleep quality in some people; however, efficacy may vary considerably. Infrequent side effects are irritability, nervousness, restlessness, insomnia, abnormal dreams, and anxiety. Melatonin controlled-release tablets are taken 1 to 2 hours before bed. There is insufficient evidence at present to support treatment beyond 3 weeks or repeated use after an initial course. There does not appear to be any impaired daytime alertness, rebound insomnia, dependence or withdrawal effects.

Suvorexant

Suvorexant is a new drug available for insomnia. It increases the time spent in all sleep stages and may have a small benefit in sleep onset. Benefit is usually seen from the first night of treatment. It is unclear currently whether rebound insomnia, dependence or withdrawal effects occur. Somnolence and severe daytime drowsiness may occur. Other side effects included headache, dizziness, and nasopharyngitis. Isolated reports of sleep paralysis and sleep-related hallucinations have been made.

Safety of suvorexant has not been established in people with respiratory problems such as sleep apnoea or COPD. Suvorexant should be taken 30 minutes before bed, on an empty stomach for faster effect. In people over 65 years of age, a lower dose of 15mg is recommended.

Tricyclic antidepressants

Tricyclic antidepressants (TCAs) such as amitriptyline (Edep), nortriptyline (Allegron), doxepin (Sinequan, Deptran) are used off-label to treat insomnia in low doses. Low-dose TCAs have minimal to no effect on non-REM sleep stage 1 and 3, but can increase time in stage 2. REM sleep is not suppressed. In low doses, anticholinergic side effects are minimal, but there is potential for significant drug interactions. Antihistamines Doxylamine (Restavit, Dozile) is approved for the treatment of insomnia and sleeplessness. It may cause paradoxical excitation and confusion in older people. Doxylamine is also contained in combination analgesic products with paracetamol and codeine. Sedating antihistamines such as dexchlorpheniramine (Polaramine) and promethazine (Phenergan) can interfere with REM sleep.

Complementary medicines

Valerian, passion flower, hops, chamomile and catnip are some of the herbal products promoted for sleep problems. There is insufficient evidence to support their use; however, they are considered relatively safe in older people.

Summary

Insomnia in older people can have severe consequences and needs to be managed appropriately. The most effective treatment for chronic insomnia is cognitive behavioural therapy. Benzodiazepines and Z-drugs have significant risks in older people and should only be used in low doses intermittently or short-term.

References

- BMJ* 2017;356:bmj.j760.
- Aust Prescr* 2017;40:116-7.
- Drugs & Aging* 2018;35:791-817.

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