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CME ARTICLE

Insomnia in the community

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Your clinic manager came into your consultation room to inform you about a very angry Mr Wee, who was at the front counter demanding a 'refill' of his sleeping tablets. You remember Mr Wee, a busy trader who works at the stock exchange. He had consulted you a few days ago for a recent onset of worsening headaches. During the consultation, you found out that he was very stressed at work, had difficulty falling asleep, and was increasingly irritable and angry in the past five days.

WHAT IS INSOMNIA?

Insomnia disrupts normal sleep. The presentation is varied and can include difficulty in initiating sleep, waking up frequently during the night with difficulty returning to sleep, early morning awakening and an unrefreshing sleep, regardless of whether true sleep was obtained.[1] In insomnia, sleep difficulty occurs despite adequate opportunity and circumstances for sleep. It presents with at least one of the following daytime impairments that is related to night-time sleep difficulty:[1]

- Fatigue or malaise
- Attention, concentration or memory impairment
- Social or vocational dysfunction, or poor school performance
- Mood disturbance or irritability
- Daytime sleepiness
- Motivation, energy or initiative reduction
- Proneness for errors/accidents at work or while driving
- Tension headache or gastrointestinal symptoms in response to sleep loss
- Concerns or worries about sleep

HOW RELEVANT IS THIS TO MY PRACTICE?

The community prevalence of insomnia in Singapore is about 15.3%.[2] The female gender and Malay ethnicity are associated with a higher risk for insomnia. Many patients with insomnia do not seek help from healthcare providers for their insomnia, but may present to their primary care physicians for their daytime symptoms such as tension headache or fatigue.[2]

COMMON PITFALLS IN INSOMNIA MANAGEMENT

There are several common pitfalls in insomnia management. One such pitfall is the misconception by both the public and some healthcare providers that the mainstay of therapy for insomnia is hypnotic medication instead of non-pharmacological therapies (Table I). Medication should only be prescribed when non-pharmacological management is ineffective or requires augmentation with medications. The most appropriate medication should be selected according to the nature of the insomnia experienced by the patient (Table II). Although longer acting drugs are less likely to result in tolerance and addiction, benzodiazepine and non-benzodiazepine hypnotics should still only be prescribed for short durations (i.e. 2–4 weeks) and taken intermittently (i.e. only when necessary).[3] This will reduce the risk of psychological reliance, physiological dependence and withdrawal symptoms associated with the cessation of these medications.

The failure to clearly document a comprehensive medical, surgical and psychiatric history, including the results of clinical functional, physical and mental state examinations, diagnoses

Table I. Non-pharmacological therapies for insomnia.

Non-pharmacological therapy	Example(s)
Sleep hygiene	Stimulus control therapy/sleep pattern schedule • No reading, watching television, eating or worrying in the bedroom • No use of computers or mobile devices in the bedroom • Avoid excessive liquid and heavy meals before sleep • Minimise or avoid caffeine-containing food or beverages before sleep • Regular exercise (not immediately before sleep)
Chronic medications review	Review the indications of the medications and consider the possible substitution of medications such as diuretics, beta blockers and steroids with appropriate alternatives.
Relaxation techniques	Deep breathing, progressive muscle relaxation, music appreciation
Psychotherapy	Pyschoeducation, cognitive behaviour therapy

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Table II. Short notes on pharmacotherapy for insomnia.

Type of insomnia (duration)	Pharmacological agent	Description
Transient (several days)	Antihistamines	Diphenhydramine (e.g. Paxidorm 25 mg) or hydroxyzine (e.g. Atarax 10–25 mg) half an hour before sleep
	Benzodiazepines	Benzodiazepines should be avoided, unless: • the insomnia is severely distressing and disabling; and • the stressor causing the insomnia is expected to resolved quickly.
	Melatonin	Melatonin is used for insomnia related to travelling across time zones. Dosage: • 0.5–2.0 mg preflight; and • higher doses (e.g. 5 mg) postflight over four days.
Acute (up to 3 mths)	Benzodiazepines	• Benzodiazepines used include lorazepam (e.g. Ativan) 0.5–1.0 mg, diazepam (e.g. Valium), chlordiazepoxide (e.g. Librium), and chlorazepate (e.g. Tranxene). Benzodiazepines may result in side effects of residual daytime cognitive impairment affecting function. • The use of midazolam (e.g. Dormicum) and nimetazepam (e.g. Erimin) are not recommended for routine outpatient prescription as they are highly addictive and commonly abused.
	Antidepressants	Antidepressants with sedation properties (e.g. low dose tricyclic antidepressants*, fluvoxamine 50 mg, mirtazapine 15–30 mg on) can also be used for insomnia.
	Non-benzodiazepine hypnotics	Non-benzodiazepine hypnotics such as zolpidem (e.g. Stilnox) and zopiclone (e.g. Imovane), which have a half-life of 2.4 hours and 5 hours, respectively. The speed of onset for zopiclone is approximately 30 mins. Non-benzodiazepines should be treated with the same caution as benzodiazepines.
Chronic (> 3 mths)	Drug choices same as that for acute insomnia and guided by what is distressing the patient.	Consider co-managing with a psychiatrist and/or psychologist to investigate the aetiology of the insomnia and to augment pharmacological therapy with non-pharmacological treatment.

*Caution should be exercised when prescribing tricyclic antidepressants as they are toxic in overdose and hence associated with suicide risk.

Table III. The 3 P's for diagnosis and formulation of insomnia.

Type of factor contributing to insomnia	Example(s)
Predisposing	• Anxious personality • Poor anger management • Poor stress coping skills
Precipitating	• Change in work environment • Major assignments or assessments • Experienced the death of a loved one
Perpetuating	• New company management style • Prolonged economic recession • New physical handicap from disease condition.

and formulations made (Table III), and treatment options explored, is another pitfall in the management of insomnia. Such documentation is necessary for the longitudinal care of a patient with chronic insomnia.[3] In addition, it is also important and necessary that a review is conducted at every consultation to evaluate the progress of the treatment and to document the clinical improvement, especially if benzodiazepines are prescribed. No refills of hypnotics should be allowed without a consultation.[3] Under Regulation 19 of the Misuse of Drugs Regulations, healthcare providers have an obligation to notify the Director of Medical Services and the Director of the Central Narcotics Bureau of any patient suspected of misuse of drugs, such as benzodiazepines, within seven days.[3]

Healthcare providers should be aware that poor response to management plans may indicate underlying secondary causes such as adjustment insomnia, insomnia due to mental disorders, poor sleep hygiene, and insomnia due to other medical conditions. They should also understand that timely referral of a patient to a colleague with mental-wellness expertise and co-management of the patient with the afore-mentioned colleague is important. Despite the good effort in managing insomnia in the community, a local insomnia clinic found that only 47.5% of the patients had primary insomnia; the remainder had primary diagnoses of underlying psychiatric disorders or substance abuse problems.[4]

WHEN WILL REFERRAL TO SPECIALISTS AND/OR OTHER ALLIED HEALTHCARE COLLEAGUES BE BENEFICIAL?

Primary healthcare providers should consider referring their patients to a specialist and/or other allied healthcare colleagues if there are secondary causes of insomnia (especially chronic pain and underlying psychiatric disorders/conditions) to be addressed, and if the patients may benefit from specialised non-pharmacological intervention not available in the primary care setting (e.g. cognitive behavioural therapy). Patients who should not be further prescribed any benzodiazepines and other hypnotics beyond a cumulative period of eight weeks

should also be referred to a specialist and/or other allied healthcare colleagues. This includes the following patients:

- Patients who are already on high-dose and/or long-term benzodiazepines from their specialists or general hospitals. These patients should be referred back to their respective specialists for further management and weaning off medications.
- Patients who are noncompliant with professional advice or warnings to reduce the intake of benzodiazepines and/or other hypnotics.

Patients who refuse to be referred to a specialist should be counselled appropriately, with the refusal documented. Patients who refuse referrals and turn aggressive should be reported to the police.

Mr Wee calmed down in the waiting room. In the consultation room, he shared with you that the antihistamines you had prescribed him were not effective for him even when he doubled the dose on his own accord. When you explored the previously agreed management plan with him, you noted that he had not made changes to his coffee intake, supper habits and habit of tracking the global stock markets on his new smartphone whenever his sleep was disrupted. You spent some time explaining to him that the mainstay of insomnia treatment involves lifestyle adjustments to improve sleep hygiene. Together with Mr Wee, a set of SMART (Specific, Measurable, Attainable, Realistic and Timely) goals were drawn up and a review in two weeks was agreed on.

TAKE HOME MESSAGES

1. The mainstay of insomnia treatment is non-pharmacological therapy.
2. Pharmacological management can augment non-pharmacological therapy for insomnia; pharmacological agents are selected according to the nature of the insomnia experienced by the patient.
3. Poor response to management plans may be due to underlying secondary causes.
4. There is a need to document all consultation tasks and keep good patient medical records, including a thorough medical, surgical and psychiatric history; the results of physical and mental state examinations; and the diagnoses and treatment options explored.
5. No refill of benzodiazepines or other hypnotics is allowed without a clinical consultation.
6. Longer acting drugs, prescribed over shorter durations (2–4 weeks) and taken intermittently (i.e. only when necessary) will reduce the likelihood of the patient developing tolerance or addiction.
7. Timely involvement of a colleague with mental-wellness expertise will be beneficial if the initial management prescribed is not effective and/or the patient remains distressed.

ABSTRACT Insomnia is the most common sleep complaint encountered in primary care. It affects both the individual and society through the burden of medical, psychiatric, interpersonal and social consequences. The management of patients affected by insomnia depends on the accurate diagnosis of the condition, consideration of the possible aetiologies, the duration of the insomnia and its impact on both the individual and society. Herein, we discuss the appropriate management of insomnia in the community.

Keywords: early awakening, primary insomnia, sleep initiation dysfunction, sleeplessness

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SINGAPORE MEDICAL COUNCIL CATEGORY 3B CME PROGRAMME

(Code SMJ 201312A)

	True	False
1. The presentation of insomnia can include difficulty in initiating sleep, waking up frequently during the night with difficulty returning to sleep, early morning awakening, and an unrefreshing sleep, regardless of whether true sleep was obtained.	☐	☐
2. Insomnia presents with at least one daytime impairment that is related to night-time sleep difficulty.	☐	☐
3. The prevalence of insomnia in Singapore is less than 5%.	☐	☐
4. Patients with insomnia are most troubled by their sleep-related problems and will highlight this to their healthcare providers.	☐	☐
5. The mainstay of therapy for insomnia is the use of benzodiazepines, but this is avoided due to the addictive nature of benzodiazepines.	☐	☐
6. Encouraging good sleep hygiene, reduction of caffeinated beverages, regular exercise and the learning of relaxation techniques are good strategies to introduce as the first-line management of insomnia.	☐	☐
7. Insomnia that is caused by inadequate sleep hygiene, mental disorders and other medical conditions need to be excluded as their management will be different.	☐	☐
8. Failure to document all consultation tasks and keep the medical records of patients prescribed with long term hypnotics may result in disciplinary action from the local medical council.	☐	☐
9. Non-pharmacological management of insomnia can be augmented with medications, especially if the symptoms are distressing.	☐	☐
10. Benzodiazepines should be avoided in the treatment of insomnia that lasts only for a few days, unless the insomnia is severely distressing and disabling, and the insomnia has a triggering event that is expected to resolve quickly.	☐	☐
11. The use of melatonin for insomnia related to travelling across time zones is a popular medical myth and is not useful.	☐	☐
12. Midazolam (e.g. Dormicum) and nimetazepam (e.g. Erimin) are not recommended for routine outpatient prescription as they are highly addictive and commonly abused.	☐	☐
13. A refill of benzodiazepines and other hypnotics for less than one week or seven days is allowed without a consultation if the patient attends your clinic regularly and there is more than a year of follow-up clinical notes on the patient.	☐	☐
14. Longer acting drugs (e.g. diazepam) are more likely than shorter acting drugs (e.g. alprazolam) to result in tolerance and addiction.	☐	☐
15. Hypnotics should only be prescribed for 2–4 weeks, and taken intermittently (i.e. only when necessary).	☐	☐
16. Judicious prescription of benzodiazepines according to the patient's presentation can reduce the risk of psychological reliance, physiological dependence and withdrawal symptoms associated with the cessation of these medications.	☐	☐
17. All patients suffering from insomnia should be referred to a psychiatrist at their first visit as such patients cannot be managed effectively or safely in the community.	☐	☐
18. Primary care clinicians should have a lower threshold for referring patients with identified secondary causes to the relevant specialists and allied healthcare partners.	☐	☐
19. Uncooperative or aggressive patients who insist on obtaining more benzodiazepines or other hypnotics, and refuse referrals should be reported to the police.	☐	☐
20. Under Regulation 19 of the Misuse of Drugs Regulations, clinicians have an obligation to notify both the Director of Medical Services and the Director of the Central Narcotics Bureau of any patients suspected of misuse of drugs, such as bezodiazepines, within seven days.	☐	☐

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