

Insomnia

Consultant neurologist *Dr Kirstie Anderson* presents the diagnostic and management pathway for those who complain of insomnia or poor sleep



Sleep history questions

- 1 Do you snore heavily? Has anyone witnessed prolonged pauses in breathing (apnoeas)?
- 2 Do you have any unpleasant tingling or discomfort in the legs that makes you need to kick or move? Is it worse in the evenings? Is it helped by moving?
- 3 What is the timing and dose of any medications, including caffeine, alcohol and nicotine? What about OTC medications that affect sleep, such as caffeine-containing painkillers or sedating antihistamines?
- 4 'Take me through a typical 24 hours' - describing the sleep/wake pattern over a day and any work shifts.
- 5 Do you nap during the day - if so when and for how long?
- 6 Do you have a history of nightmares, acting out dreams or sleepwalking out of the bedroom? If so, at what time of night do these things tend to happen?

General advice

- Allow at least 11 hours recovery in between the end of one shift at work and the start of the next.
- Avoid long working weeks of >60 hours.
- Seek flexibility in shifts to accommodate natural larks or owls.
- Promote healthy lifestyle advice, particularly eating habits.

Common causes of poor sleep

Sleep apnoea - 20% perceive a restless, unrefreshing night. Clues include snoring, daytime sleepiness. High-risk groups include those who attend the pain clinic, those with severe mental health problems who may live alone and be unaware of their snoring history and those with CFS/ME.

Restless legs syndrome - affects 5-10% of the population with variable severity. Signpost patients to RLS-UK.

Gastro-oesophageal reflux - nocturnal cough, pain, laryngospasm.

Shift workers - sleeping badly affects women more than men and those over 40. Leads to decreased total sleep time and disrupted circadian rhythm.

Assessment in the surgery

Epworth sleepiness score - surprisingly, insomnia patients typically have a low ESS, often between 0 and 2. They don't tend to daytime nap and often misperceive how long they sleep for - only about 10% sleep for less than six hours a night.

Sleep diaries - a pattern of spending far more time in bed than asleep is usually seen. The sleep efficiency (sleep time/time in bed) over seven or 14 days can be calculated. Normal sleep efficiency is typically >85%. Devices such as the Fitbit and Jawbone are not validated to assess sleep - discourage patients from using them to measure sleep.

Investigations - check ferritin for restless legs; supplement if below 45. There is little evidence for other routine blood tests if the patient is systemically well.

Insomnia disorder

- Not explained by another underlying cause of disturbed sleep.
- Difficulty falling asleep, or
- Difficulty maintaining sleep (typically both).
- Subsequent daytime dysfunction.
- Occurs on more than three days a week and for at least three months.

Who to refer to secondary care

Possible sleep apnoea - most patients will be investigated with a domiciliary, respiratory sleep study.

Treatment-resistant restless legs - refer if lifestyle factors have been addressed and treatment with a low-dose dopamine agonist or alpha-2-delta ligand fails.

Injurious parasomnia - occasional sleep paralysis or sleepwalking that partners can manage without injury may not need referral.

Possible narcolepsy - younger, very sleepy patients with additional vivid dreams and cataplexy.

Management of insomnia disorder

First-line treatment should be psychological therapies for insomnia disorder; insomnia-specific CBT (CBTi) outperforms drug therapy, with fewer side-effects. Group, computerised and one-to-one delivery have all been shown to be effective.

Drug management

Benzodiazepines and Z-drugs - these are licensed but are addictive and there is little evidence for sustained benefit. Helpful for some parasomnias such as REM sleep behaviour disorder over the long term without dose escalation. Can worsen snoring and sleepwalking. Driving impairment is demonstrated with no awareness of impairment

Melatonin - licensed for adults aged over 55 and if used for less than 13 weeks but only effective for improving sleep onset, not total sleep time. Short half-life so few side-effects.

Gabapentin - there is trial evidence for short-term benefit when used 200mg at night but it is off licence. Also effective for restless legs, as is night-time pregabalin at low dose.

Antihistamines - such as Nyctol (diphenhydramine) - these have a long half-life, so there is potential for hangover with very limited evidence for benefit.

Amitriptyline/trazodone - the long half-life limits dose escalation for many. Carries anticholinergic side-effects such as dry mouth and weight gain, use is off-license and there is limited evidence for sustained benefit.

How can patients access CBTi?

- 1 Guided self-help books (such as *Overcoming insomnia and other sleep problems*, Espie C, 2006).
- 2 Online versions of therapy, some availability within IAPT and NHS - such as Sleepstation and Sleepio. Also available commercially direct to patient.
- 3 Some regional sleep services offer assessment and therapy.
- 4 Talking therapies - expansion of the remit beyond anxiety and depression CBT means that some are trained and offer CBTi - provision is patchy but increasing.

Dr Kirstie Anderson runs the neurological sleep service in Newcastle upon Tyne Hospitals NHS Foundation Trust, has developed digital therapies for insomnia and runs annual sleep training days

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