

Department of General Practice and Primary Health Care, University of Auckland, Private Bag 92019, Auckland, New Zealand Correspondence to: B Arroll b.arroll@auckland.ac.nz

Cite this as: *BMJ* 2008;337:a1245 doi:10.1136/bmj.a1245

10-MINUTE CONSULTATION Sleep disorder (insomnia)

Bruce Arroll, Antonio Fernando III, Karen Falloon

A 53 year old man comes to you complaining of not having slept well for many years. He always feels tired the next day. He has tried sleeping pills, which sometimes help, but he is not keen on taking them continually and has found that the benefits they give him don't last. He spends about 9-10 hours in bed each night (going to bed about 9 30 pm or 10 pm and getting up at 7 am) and has trouble getting to sleep. His actual hours of sleep are 5.5 to 6 each night. He wakes about three times a night and describes the quality of his sleep as poor.

What issues you should cover Assessment

Rule out secondary causes. To assess whether he has depression or anxiety, for example, ask screening questions, take a full history of depression and anxiety, or use a scale such as the Hospital Anxiety and Depression Scale, which gives a score for both conditions. Consider sleep apnoea if he snores a lot at night, has periods of apnoea, falls asleep easily during the day (for instance, as a passenger in a car, in lectures, or in waiting rooms), and is overweight. (Sleep laboratory assessment may be needed if this diagnosis is not clear.) As his general practitioner you will know whether he has severe pain or a breathing condition-these may need treatment. Delayed sleep phase is where people prefer to go to sleep and wake up more than two hours later than societal norms. You can ask directly about parasomnias (sleep walking, sleep talking, and restless legs syndromes). If he has none of these he probably has primary insomnia-his insomnia is not due to any other cause and hence is a diagnosis of exclusion.

Useful reading

Holbrook AH. Treating insomnia. *BMJ* 2004;329:1198-9 Smith MT, Perlis ML, Park A, Smith MS, Pennington J, Giles DE, et al. Comparative meta-analysis of pharmacotherapy and behavior therapy for persistent insomnia. *Am J Psychiatry* 2002;159:5-11

This is part of a series of

occasional articles on common problems in primary care. The *BMJ* welcomes contributions from GPs

Documenting insomnia

You could ask him to keep a sleep diary over 1-2 weeks. Or ask him what time he puts out the lights, how many minutes it takes him to get to sleep, how many times he wakes up after first falling asleep and how long he stays awake, and what his final waking time is and the time he gets out of bed. From this information you can calculate how much time he spends in bed and how much time asleep, which can be expressed as the sleep efficiencythe percentage of time spent in bed during which he is asleep. He sleeps for about six hours and is in bed for nine hours, so his sleep efficiency is about 66%. A sleep efficiency of 80% to 85% is considered optimal. More than 90% may indicate sleep deprivation, and below 75% is considered to be a sign of poor quality sleep. Ask how he feels when he wakes up and during the day, and ask him to describe the quality of his sleep.

Causes of sleep disorder Common causes Depression Anxiety Sleep apnoea Pain or a serious breathing condition Daytime naps, especially if late in day Evening consumption of coffee, nicotine, or alcohol Vigorous physical activity close to bedtime Shift work Primary insomnia (in reality all those cases that don't have a specific cause) Causes of unknown prevalence in primary care Delayed sleep phase ("night owls") Parasomnia (sleep walking, sleep talking, and restless legs)

What you should do

In primary insomnia the behavioural option of sleep restriction (restricting the amount of time spent in bed just to the usual sleeping time) has been shown to work, with or without cognitive behavioural therapy. As he is sleeping for only 5.5 to 6 hours, advise him to go to bed much later than he currently is; thus if he gets up at 6 am he could go to bed at 12 midnight so that he spends less time in bed.

Some patients find this regime quite difficult but within about two weeks find themselves sleeping much better and report a better quality of sleep. If they achieve this in a few weeks they can start increasing the time spent in bed, restricting it again if the quality of sleep deteriorates. Once the patient achieves better quality sleep he can choose to remain on that schedule.

It is common for patients with primary insomnia to get a much higher quality of sleep once they begin sleep restriction. Their usual response to poor sleep is to spend more time in bed, which is in fact counterproductive.

Contributors: BA had the idea for the article. AF provided technical information about insomnia (sleep disorders), and KF provided the primary care perspective. BA is the guarantor and accepts full responsibility for the article and controlled the decision to publish. **Competing interests:** BA is on the advisory board for educational seminars run by Pharmac, New Zealand's government funded drug purchasing agency. He is also on the primary care committee of the Future Forum, an educational foundation funded by AstraZeneca (UK). He has accepted funding for travel and conferences from Sanofi Aventis. AF has accepted funding for travel and conferences from Sanofi Aventis. He is also a speaker for CSL, AstraZeneca, and Eli Lily. **Provenace and peer review.** Not commissioned; peer reviewed.