Supporting Training Initiatives

the otc treatment clinic

Common conditions and their treatment options

This module has been endorsed with the NPA's Training Seal as suitable for use by medicines counter assistants as part of their ongoing learning. Complete the questions at the end to include in your self-development portfolio

Welcome to *TM's* OTC Treatment Clinic series. This handy, four-page section is specially designed so that you can detach it from the magazine and keep it for future reference.

Each month, *TM* covers a different OTC treatment area to help you keep up-to-date with the latest product developments. In this issue, we focus on insomnia. At the end of the module are multiple choice questions for you to complete, so your progress can be monitored by your pharmacist.

You can find out more in the *Counter Intelligence Plus* training guide.

The last six topics we have covered are:

- Coughs
- Topical pain relief
- Eye care
- Head lice
- Acne
- Hayfever

You can download previous modules from www.tm-modules.co.uk

module 211
Insomnia and sleep problems

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for this module

OBJECTIVES: After studying this module, assistants will:

- **Have a general understanding of sleep and why it is important**
- **Be aware that different people need varying amounts of sleep and that quality of sleep is important**
- **Be familiar with the common causes of insomnia and other sleep problems**
- **Understand what is meant by 'sleep hygiene'**
- **Understand how OTC medication can help relieve short-term, temporary sleep disturbances.**

The author F Scott Fitzgerald was right when he commented: "The worst thing in the world is to try to sleep and not to." Anyone who has tossed and turned all night and then had to face work the next day will relate to this statement. And if restless nights are a regular occurrence, the effect of this lack of sleep can take its toll.

We spend around a third of our lives asleep and far from being a passive, dormant process, doctors now know that sleep is a very active phase, particularly for our brains. Experts are beginning to realise that sleep has a major impact on many aspects of our lives, from how we respond to stress to the functioning of our immune systems.

This month's OTC Treatment Clinic takes a closer look at sleep and what happens when our sleep patterns become disrupted; the common causes of insomnia; self-care tips you can offer, and the role of OTC medication in relieving temporary sleep disturbances.

What is sleep?

Sleep is a very complex process, with many aspects of it still being uncovered by scientists. Chemicals called neurotransmitters are involved in many of the processes that occur during sleep. For example, deep sleep coincides with the release of growth hormones in children and young adults. Another chemical called adenosine builds up in the blood while we are awake and makes us drowsy. It is then gradually broken down while we sleep.

reflective exercise

Wendy, 55, asks you for a product to help her sleep. She has recently been made redundant and is job-hunting for the first time in over a decade. A local recruitment agency has put her forward for a job that she would love, but it involves two interviews – the first of which is in three days time and includes a written test. The stress of trying to find work while balancing her other commitments is taking its toll and leaving Wendy unable to relax. She has no existing medical conditions.

What would you recommend?
The world of job interviews is more competitive than it used to be and it can be a daunting experience for someone who is out of practice. It's important to be sympathetic and understanding throughout your discussion.

An OTC sleep remedy could be helpful, but also discuss lifestyle habits that may improve Wendy's sleep hygiene. Suggest she has a caffeine-free herbal or fruit tea, or a milky drink in the evening. A warm bath or relaxing book before bed may also help her to unwind. These measures could be used alongside an OTC product. However, although effective, antihistamines may make her feel drowsy the following day, which would not be suitable before an interview. Suggest Wendy takes an antihistamine several days before the interview and judges how effective it is and whether she feels drowsy the following day. Advise her to take it in the early evening to minimise the drowsy effects. A herbal remedy may not be the most appropriate option as they don't always have an immediate effect. However, if Wendy prefers this approach then recommend a herbal sleep aid.

What if:
Wendy mentions that she suffers from restless legs syndrome in the evenings, which delays her from falling asleep.

Ask Wendy how frequently she suffers – is it every night? Practising good sleep hygiene may be useful, such as avoiding caffeine from mid-afternoon, performing gentle rather than strenuous physical activity in the evening and limiting alcohol consumption. Restless legs syndrome can be difficult to treat, so Wendy should be referred to the pharmacist if her symptoms do not improve.

What if:
Wendy asks you about her 75-year-old mother Karen, who finds it difficult to sleep and always wakes early. Karen takes beta-blockers, aspirin and simvastatin. Her GP will not prescribe sleeping tablets.

Karen should record what time she goes to bed and gets up in the morning. Ask Wendy if her mother is in any pain and if she sleeps during the day. Daytime naps can disrupt sleep, particularly if taken during the afternoon. Taking up a stimulating hobby at this time may help her to stay alert and awake throughout the day. Karen's medication, particularly beta-blockers, can affect sleep. Therefore Karen should come in to the pharmacy and be referred to the pharmacist.

Sleep has five stages – 1, 2, 3, 4 and REM (rapid eye movement). These occur in cycles, beginning with stage 1 and moving through to REM, before starting again at stage 1. A complete cycle of all five stages takes between 90 to 110 minutes.

- Stage 1: this is light sleep; we drift in and out of this stage and can be easily awakened
- Stage 2: during this stage, eye movement stops and our brain waves slow. Adults spend almost half of their time asleep in stage 2
- Stages 3 and 4: together these make up what is called 'deep sleep', when it becomes more difficult to wake the person
- REM: during the REM stage, breathing becomes more rapid and irregular and, as the name suggests, the eyes move rapidly. Heart rate and blood pressure also increase and, if a person is woken up, they may recall dreaming. The first REM period occurs about 70 to 90 minutes after falling asleep and is relatively short. As the sleep progresses, REM periods increase in length and deep sleep decreases.

REM sleep stimulates the brain regions used in learning and is thought to be important for normal brain development. This may explain why infants spend about half of their time asleep in the REM stage.

Why do we need sleep?
Without adequate amounts of good quality sleep, our bodies are unable to function properly. Many studies have investigated the effects of sleep deprivation and found that, among other things, people lacking in sleep have impaired focus, reduced memory and are more likely to make bad, risky decisions.

Insufficient sleep can also impact a person's mood, making them irritable and more prone to relationship problems.

There is also evidence that sleep affects our immune systems. According to The Sleep Council, burning the candle at both ends increases the chances of coming down with coughs, colds and upset stomachs, especially among students and young adults. People who regularly skimp on sleep put themselves at increased risk of high blood pressure, heart disease and other illnesses too.

Hormones released during sleep affect how the body uses energy and studies have revealed that the less people sleep, the more likely they are to be overweight, develop diabetes and choose foods that are high in calories and refined carbohydrates.

These effects are important when you appreciate how prevalent sleep problems are in the UK. A 2011 study by The Sleep Council revealed that nearly half of those surveyed got just six hours, or less, of sleep a night, while four out of five complained of disturbed or inadequate sleep.

How much sleep do we need?
The amount of sleep we require varies from person to person. Newborn babies sleep for around 17 hours a day, decreasing to around 13 to 14 hours after the first year of life.

Adults need between seven and eight hours of sleep a night. However, this can vary greatly depending on the person. For example, pregnant women often sleep more during their first trimester and anyone who is fighting off an infection, such as a cold or flu, will probably sleep more.

In general, older adults sleep more lightly and for shorter periods. This may be a normal part of the ageing process or it could be linked to a pre-existing medical condition or treatment they are undergoing.

Teenagers need around nine hours of sleep on average. However, their frequent use of modern technology may trigger problems. Sleep patterns are linked to both light and hormones. In the evening when natural light dims, the body produces melatonin to signal that it is time for sleep. However, artificial light produced by TVs, laptops and mobile phones can interfere with this process. In 2007, The Sleep Council published research that showed that 30 per cent of youngsters only get between four and seven hours of sleep a night, while almost a quarter admit that once a week they fall asleep while watching TV, listening to music or with other gadgets running.

Insomnia can be a very debilitating condition

Too little sleep creates a 'sleep debt' and, much like an overdrawn bank account, sooner or later, the debt needs to be repaid. While one night of disturbed sleep will have relatively little impact, issues arise when a person frequently suffers restless nights or regularly burns the candle at both ends.

Common sleep problems

Insomnia

Insomnia is defined as unsatisfactory sleep, which may mean the sleep is insufficient or of poor quality. Poor quality sleep occurs when the person has difficulty falling asleep, cannot stay asleep or wakes early.

According to the Mental Health Foundation's *Sleep Matters* report, insomnia affects up to one-third of the population. More women suffer than men, but the incidence increases in both sexes with age.

Insomnia can be classed as short-term – lasting less than four weeks, or long-term/persistent – lasting longer than four weeks. In around 15 to 20 per cent of long-term cases, the condition is described as 'primary', meaning that there is no identifiable cause. If the symptoms can be linked to, or associated with, another condition, it is termed 'secondary' insomnia.

Common causes of insomnia include:

- Stress and/or anxiety – this may be related to numerous factors, including work, financial worries or health concerns
- Poor sleep hygiene – e.g. using laptops in bed, eating or drinking too late in the evening, smoking
- Poor sleep environment – e.g. the room is noisy, light or the incorrect temperature
- Medical conditions – this may include cardiac and respiratory conditions such as bronchitis, asthma or angina as well as gastrointestinal conditions like irritable bowel syndrome or acid reflux. Pain can also disrupt sleep, particularly headaches, injuries or arthritis.

Incontinence and nocturia (getting up in the night to pass urine) may also disrupt sleep. These conditions commonly occur in patients with diabetes or enlarged prostate glands. Thyroid problems and the side effects of the menopause can also disrupt sleep.

In addition, there is a recognised link between insomnia and mental health conditions such as depression, post-traumatic stress disorder and schizophrenia.

- Medication and other substances – e.g. prescribed medicines such as antidepressants, epilepsy medication, corticosteroids, NSAIDs and some blood pressure treatments, as well as alcohol, caffeine and nicotine
- Jet lag and shift work – both require the body to function during dim light, which the body interprets as time to sleep, inducing sleep during the day.

Insomnia sufferers often find it useful to keep a sleep diary that records the time they go to bed and get up, the number of times they wake during the night and how tired they feel during the day along with their dietary and lifestyle habits, such as exercise and stress levels. This information can be a useful starting point for managing their symptoms.

Obstructive sleep apnoea

Obstructive sleep apnoea (OSA) is a relatively common condition, particularly among men aged 30 to 60 years old. According to NHS Choices, an estimated four per cent of middle-aged men and two per cent of middle-aged women have OSA. However, there are thought to be many undiagnosed cases.

In OSA, the walls of the throat relax and narrow during sleep, causing repeated interruption to the person's breathing. As a result, oxygen levels in the blood fall, which triggers the brain to wake the person up. This may occur many times during the night, resulting in poor quality sleep and drowsiness the following day.

OSA most often occurs in people who are overweight or obese, or who have a large neck or an unusual structure in the neck such as a narrow airway, a small lower jaw or large tonsils, adenoids or tongue. Nasal polyps or a deviated septum in the nose also increase the risk of OSA, as do taking sedative medicines, and smoking or drinking alcohol before sleep. There may also be a genetic element.

The most common symptoms of OSA include snoring, noisy or laboured breathing, and repeated periods where breathing is interrupted by gasping or snorting. Sufferers may feel drowsy the following day, have poor memory or difficulty concentrating and be more prone to headaches, mood swings, irritability or even depression.

Restless legs syndrome

According to NHS Choices, restless legs syndrome (RLS), or Willis-Ekbom disease, affects around one in 10 people in the UK at some point in their lives. Women are twice as likely to suffer as men and symptoms commonly appear in middle age.

Sufferers describe an unpleasant crawling or creeping sensation in their feet, calves and thighs, resulting in an overwhelming desire to

sleep hygiene

The following lifestyle tips can help to increase the chance of sleep:

Do:

- Ensure the bedroom is at a comfortable temperature
- Remove any distractions such as bright lights or noise. Use dark curtains or earplugs if necessary
- Check that the mattress is supportive – too firm and it puts pressure on the hips and shoulders, too soft and it's bad for the back
- Exercise moderately during the day, but avoid activity close to bedtime
- Make time to relax before bed, e.g. have a warm bath
- Write a list of any worries or errands that need to be done the following day
- Quit smoking – smokers take longer to fall asleep and wake more frequently.

Don't:

- Go too long without sleep or wake up too late – stick to a regular sleep routine every day
- Stay in bed tossing and turning – if you can't sleep, get up and do something relaxing, such as reading or listening to soothing music. Go back to bed when you feel tired
- Drink caffeinated drinks after mid-afternoon – opt for warm milky drinks or caffeine-free herbal teas instead. Also avoid medication containing caffeine – it is sometimes an ingredient in OTC painkillers and cold remedies
- Have a nightcap – alcohol may help you fall asleep, but you're more likely to wake during the night
- Eat too close to bedtime – meals should be early in the evening, but don't go to bed hungry
- Take naps – they make it harder to fall asleep at night.

move their legs. Symptoms are often worse in the evening and may include involuntary jerking or twitching of the limbs. RLS ranges from mild, occasional symptoms to severe cases that occur on a daily basis.

In the majority of cases there is no obvious cause, although doctors believe there may be a link to how the body processes the chemical dopamine. Some sufferers have an underlying health condition such as iron deficiency anaemia or kidney failure.

Around one in five pregnant women suffer in the last trimester of pregnancy. However, symptoms often disappear the after birth.

Sufferers may benefit from practising good sleep hygiene, regularly exercising during the day and quitting smoking.

Narcolepsy

Narcolepsy affects both sexes and usually begins during adolescence or young adulthood. Sufferers may find it difficult to function due to extreme tiredness and may even fall asleep while eating or talking. Other symptoms may include muscle weakness (cataplexy) while awake, and hallucinations and sleep paralysis while asleep.

The exact cause is unknown, but researchers believe that sufferers have low levels of hypocretin, a chemical in the brain that promotes wakefulness. Some sufferers may have a family history of the condition, while other cases may be linked to infections, brain injuries or autoimmune disorders.

Treatment options

Sleep hygiene and CBT

The first step in treating insomnia is to evaluate an individual's sleeping habits and encourage them to adopt good 'sleep hygiene'. Sleep hygiene describes lifestyle changes that help improve both the likelihood of falling asleep and having a night of good quality sleep.

Cognitive behavioural therapy (CBT) may be recommended in severe cases. It involves strategies such as sleep restriction therapy, relaxation training and stimulus control.

OTC medication

OTC sleep aids are based on older style antihistamines that have drowsiness as a side effect. While this may not be desirable for treating hayfever during the day, it can help to promote sleep.

Common antihistamines used in OTC products include promethazine (e.g. Sominex) and diphenhydramine (e.g. Nytol).

These are useful for short-term relief from temporary sleep disturbances in people aged over 16. However, customers should be warned that they may experience drowsiness the following day and should be cautious if they plan to drive or operate machinery.

Such products should not be taken for longer than seven days without medical advice. If any customers are making repeat requests or purchasing multiple packs, refer them to the pharmacist.

Natural and complementary remedies

Herbal sleep products are often based on valerian and passiflora. They are thought to work by promoting calmness and encouraging natural sleep. The effects may not be immediate, so warn customers that some products may need to be taken continuously for two to four weeks.

OTC brands include Bonuit Sleep Aid Tablets, Kalms Night, Kira Restful Sleep, Niteherb Tablets, Nytol Herbal Tablets, Potter's Nodoff, Quiet Life and Sominex Herbal.

Who to refer to the pharmacist

Refer customers who report any of the following:

- Insomnia symptoms that last longer than one week, have occurred in the past or have a significant impact on quality of life
- Taking other medication
- A pre-existing medical condition, such as depression
- Are elderly or younger than 16 years old
- Are pregnant or breastfeeding
- Anyone who has unsuccessfully tried an OTC sleep aid product.

Signposting

- The Sleep Council: www.sleepcouncil.org.uk
- The British Snoring and Sleep Apnoea Association: www.britishsnoring.co.uk
- NHS Choices: www.nhs.uk/Livewell/sleep
- Mental Health Foundation: www.mentalhealth.org.uk

assessment questions: insomnia and sleep problems

For each question, select **one correct answer**. Discuss your answers with your pharmacist.

1) Which of the following statements about sleep is FALSE?

a) Sleep is not a dormant, passive process, but a time when our brains are very active ☐
b) Deep sleep coincides with the release of growth hormones in children and young adults ☐
c) Adenosine is a chemical that builds up in the blood when we're awake and makes us drowsy. It is gradually broken down while we sleep ☐
d) Sleep stages 1 and 2 make up what is known as deep sleep, when it becomes more difficult to wake a person ☐

2) Which of the following is NOT a recognised consequence of sleep deprivation?

a) Lack of focus and impaired memory ☐
b) Increased risk of high blood pressure, heart disease and other illnesses ☐
c) Increased likelihood of choosing foods that are low in calories and refined carbohydrates ☐
d) Increased risk of being overweight and developing diabetes ☐

3) Which of the following statements is TRUE?

a) Teenagers need significantly less sleep than adults ☐
b) Sleep patterns are linked to light, which can be disrupted by exposure to artificial light ☐
c) Insomnia is defined as not getting enough sleep; it is not determined by sleep quality ☐
d) Primary insomnia occurs when the symptoms can be linked to, or associated with, another condition ☐

4) Which of the following can result in disrupted sleep patterns?

a) Regularly working night shifts ☐
b) Suffering from obstructive sleep apnoea ☐
c) Suffering from restless legs syndrome ☐
d) All of the above ☐

5) Which of the following customers does NOT need to be referred to the pharmacist?

a) A man in his early 20s who is having trouble getting to sleep because he is anxious about an upcoming job interview ☐
b) A lady in her 70s who complains that she is waking up too early in the mornings ☐
c) A 55-year-old man whose sleep is being disrupted every night by the need to urinate ☐
d) A breastfeeding mum who takes naps during the day and has difficulty falling asleep at night ☐

6) Which of the following is NOT a recognised sleep tip?

a) Exercise rigorously just before bedtime ☐
b) Remove distractions from the bedroom ☐
c) Ensure that the bed is comfortable and the mattress is properly supportive ☐
d) Avoid large meals, caffeinated drinks and alcohol late in the evening ☐