

## Snoring and Obstructive Sleep Apnoea - Overview

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In this course, I will explain the role of the sleep clinic, ENT and sleep-trained dentists. What they have to offer (to help you decide which patients are most appropriate for each pathway) and what you might consider when speaking with a snorer.

Snoring and OSA exist along a continuum from 'benign' snoring with no sleep fragmentation, through to OSA with severe daytime symptoms and the physiological consequences of recurrent oxygen deprivation.

### LET'S DIVE IN

So, now imagine you're speaking with an adult snorer or perhaps their partner. You ideally want to have a consultation with the snorer AND partner together, because you need to include a sleep apnoea symptom assessment and both their lives are impacted.

Don't worry if you don't know much about OSA – that's what this course is all about.

A sleep apnoea symptom assessment is essentially how you separate the drowsy individuals (and those with relevant co-morbidities – we'll get to that) from the desperate non-drowsy, non-obese and otherwise benign snorers.

OSA is a cause of considerable morbidity, reduced quality of life and premature death. Snoring may be a symptom of OSA, as such OSA is often undiagnosed or symptomatically treated.

Over the last twenty years, our knowledge of both snoring and OSA has dramatically increased. We can now help people stop snoring (NICE make specific recommendations about this) and provide effective therapy for OSA patients to improve and extend their healthy life.

As a result, there has been an extraordinary rise in the number of GP referrals for these conditions. As a pharmacist you can help!

### Why do we snore or have OSA?

Everybody's airway narrows when they go to sleep, due to reduced muscle tone. Snoring is simply the noise of soft tissue vibrating when this airway narrowing goes beyond a certain point. Further reductions in airway dimension produce not only louder snoring, but also laboured breathing in. As the airway becomes narrower still - it may cause complete obstruction, known as obstructive sleep apnoea.

When the increased effort to breathe in during sleep, is sensed by the individual's brain they briefly wake up. They're unlikely to remember this. A few of these awakenings don't matter, but when there are many (sometimes hundreds) sleep is severely fragmented and as a result the sufferer experiences daytime symptoms of excessive sleepiness (sometimes described as drowsiness).

### Is help really necessary?

Yes.

'Benign' snoring may be anything but benign. It's an embarrassing problem and something snorers and/or their partners may be uncomfortable discussing.

The social consequences include relationship breakdown, fear of travelling on public transport and ridicule. It is anything but a joke for the snorer and their family.

OSA, makes the sufferer drowsy and desperate for rest. The classic definition is "*irresistible sleepiness in unsuitable circumstances.*"

Car accidents are much more common, in fact one in four RTIs in the UK are sleep related.

The good news is that the response to effective therapy is amazing. Effectively treated individuals may proclaim that they feel "10 years younger".

NICE Guidelines exist because treatment is essential for OSA and it is extremely appropriate for snoring.

Diagnosis and treatment for OSA is provided for free by the NHS because it makes financial sense to do so.

### So how can you as a pharmacist help?

To help you decide if the problem might be more than 'just' snoring you need to look for these six signs of OSA:

**Number 1.** Daytime sleepiness. Sometimes patients describe this as 'drowsiness'. It is the propensity to fall asleep (not to be confused with tiredness). You're looking for low stimulus situations where they may fall asleep. For example reading, watching TV, or in meetings, etc.,

Sleepiness is assessed by having the individual complete the subjective Epworth Sleepiness Scale. The total is out of 24 and scores of 7 to 8 are considered normal. Whereas scores in excess of 9 suggest excessive sleepiness and referral to a sleep unit should be considered.

**Number 2.** What is known as 'witnessed apnoeas'. This is when the partner has noticed they *often* stop breathing during sleep. Occasional episodes may occur for every snorer especially if the snorers sleep on their back.

**Number 3.** Snorer reports of waking up “hearing the end of their own snore”. Perhaps this is accompanied with coughing/choking (although they will only recall a tiny proportion of those that actually happen) so ideally you want to talk to the partner about this.

**Number 4.** Routinely feel unrefreshed on waking in the morning.

**Number 5.** Neck circumference over 17½” for men and 16” for women (this is a broad-brush indicator of obesity).

**Number 6.** Small Pharynx on visual inspection. Is there much space behind the tongue? Can you see the back of the throat past the uvula?

If you identify any of these, then direct the snorer to their GP for onward referral to a Sleep Clinic may be appropriate.

### **Why is this happening?**

The 8 most common causes of snoring and sleep apnoea are:

1. Being overweight
2. Evening alcohol
3. Smoking
4. Nasal stuffiness
5. Residual tonsils
6. Receding lower jaw
7. Hypothyroidism
8. Menopause

One or more of these may be present and may respond to simple measures and lifestyle advice, that may not require GP/secondary care referral.

These include:

1. Weight reduction where appropriate
2. Reduction or cessation of evening alcohol
3. Stopping smoking
4. Encouraging the snorer not to sleep on their back
5. Keeping the nose clear. Consider nasal ‘stuffiness’. Cortico-steroid nasal sprays such as ‘Beconase’ may reduce nasal inflammation discuss this with the patient’s GP.
6. Sleeping with the head of the bed raised by using pillows underneath it. And not using more than two pillows to sleep with.
7. Consider a check for underactive thyroid
8. Consider H.R.T. where appropriate discuss with the GP
9. Ear plugs. It may take a few nights to get used to wearing ear plugs and young mothers may not wish to do so in case they fail to hear their children crying.
10. Consider asking a sleep-trained dentist to consider make an ‘intra oral device’ to be worn during sleep. Note, custom-made intra-oral devices are not paid for by the NHS for non-sleepy snorers.

## So, what about intra-oral devices?

Current NICE Guidance states that custom-made, prescription 'intra-oral devices' (known as mandibular advancement devices) are first-line therapy for benign snoring and mild OSA.

And 'intra-oral devices' are second-line therapy for OSA when Positive Airway Pressure therapy is refused or not complied with.

Prescription 'intra-oral devices' work by holding the lower jaw (mandible) forwards and keeping the mouth closed during sleep.

A sleep-trained dentist would screen the patient for symptoms of OSA and ensure the snorer had healthy teeth, gums and jaw joints prior to prescribing. Their professional indemnity covers them to do this if they're sleep-trained.

### **An important note:**

Should anyone other than a dentist, recommend the use of an OTC intra-oral device, it would make them personally liable for the dental consequences. And they'd be outside the bounds of their expertise and professional indemnity insurance.

## What has surgery to offer snorers?

Today, unless there is an anatomical issue, surgery is routinely confined to improving the effect of a prescription 'intra oral device' or PAP therapy. Nasal polyps may be worth removing as are large residual tonsils, but as an adult this is not a trivial operation.

## Treatment of obstructive sleep apnoea

If your assessment suggests there are symptoms of OSA and/or the snorer has relevant co-morbidities e.g.

- Type 2 diabetes,
- Obesity,
- Inadequately controlled hypertension
- A heart condition
- or epilepsy not controlled by medication,

then it is best to refer the snorer to their GP for consideration of onward referral to a sleep unit, as a sleep study will almost always be necessary.

A sleep unit's main function is to diagnose OSA and offer treatment to those who are likely to benefit.

If their symptoms are fairly disabling, and the diagnosis is confirmed by sleep study, then the patients are offered continuous positive airway pressure therapy (PAP) therapy for use during sleep.

PAP is an arduous therapy which involves wearing a mask over the nose at night connected to a quiet blower on the bedside table. PAP works by pneumatically splinting open the upper airway to prevent the obstructions and snoring.

### **Let's talk about snoring children:**

Children should NOT routinely snore. Sleep apnoea with snoring and sleep disturbance is quite common in young children particularly at times of upper respiratory tract infection when the tonsils may enlarge. The sleep disruption produces a variety of daytime consequences including sleepiness, hyperactivity, poor attention span and bad behaviour.

Sometimes the tonsils are large enough to produce this problem in the absence of current infection. This warrants referral to the patient's GP for consideration of ENT referral for a tonsillectomy.

If there is some doubt, then the GP may ask the Sleep Unit to monitor the child overnight and try and decide if the benefits of a tonsillectomy are likely to outweigh the traumas to a young child of a hospital admission and an operation.

Oral appliances are not appropriate for children.

### **OK, let's sum up**

When a snorer (without symptoms of sleep apnoea) requests help consider the causes.

Then when appropriate consider lifestyle advice.

If these don't work, consider directing the non-somnolent snorer without relevant comorbidities to a sleep-trained dentist or ENT as appropriate.

If you recognise sleep apnoea symptoms direct the patient to their GP with a view to a referral to the sleep unit, which is usually part of the respiratory service.