



# Impact on NHS workforce and resources

Resource impact

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The [NICE guideline on obstructive sleep apnoea/hypopnoea syndrome and obesity hypoventilation syndrome in over 16s](#) was published in August 2021. The guideline recommendations have been reviewed for their potential impact on the NHS workforce and resources.

The guideline covers the diagnosis and management of obstructive sleep apnoea/hypopnoea syndrome (OSAHS), obesity hypoventilation syndrome (OHS) and chronic obstructive pulmonary disease with OSAHS (COPD–OSAHS overlap syndrome) in people over 16. It aims to improve recognition, investigation and treatment of these related conditions.

## Recommendations likely to have an impact on resources

Publication of the guideline, and the recommendations in sections 1.1 and 1.2, aims to raise awareness of symptoms and conditions associated with sleep disorders. This could lead to more people being referred to sleep services, receiving a sleep test and possibly treatment. This will lead to the following recommendation having a resource impact:

- Offer home respiratory polygraphy to people with suspected obstructive sleep apnoea/hypopnoea syndrome (OSAHS) (**recommendation 1.3.1**)

Recommendations that could also have a significant resource impact and should be assessed locally, are:

- For people with mild OSAHS - offer fixed-level continuous positive airway pressure (CPAP) (**recommendation 1.5.2**)
- Consider auto-CPAP as an alternative to fixed-level CPAP in people with mild OSAHS (**recommendation 1.5.4**)
- Consider a customised or semi-customised mandibular advancement splint as an alternative to CPAP in people with mild OSAHS (**recommendation 1.5.7**)
- Consider referral for assessment for oropharyngeal surgery in people with severe OSAHS who have been unable to tolerate CPAP and a customised mandibular advancement splint despite medically supervised attempts (**recommendation 1.7.4**).

## Context

OSAHS, OHS and COPD–OSAHS overlap syndrome can have a profound impact on people's lives, causing excessive sleepiness or sleep disturbance that affects social activities, work performance, the ability to drive safely and quality of life. Undiagnosed, these conditions are closely associated with serious health problems, including hypertension, diabetes, stroke and heart disease, and can shorten life expectancy.

The guideline is needed to improve recognition and management of OSAHS, OHS and COPD–OSAHS overlap syndrome, and ensure consistent provision of care. It gives advice to healthcare professionals on when and how to investigate, and how to manage each of these conditions. It also gives guidance on supporting people to adhere to treatment and providing follow-up.

Services are commissioned by integrated care systems / clinical commissioning groups. Providers are NHS hospital trusts.

## Resource impact

Around 666,000 people in England present to healthcare services each year with symptomatic sleep apnoea. Of these, the number of people referred to sleep services and who have a sleep test each year is currently around 121,000 (18%) (see table below).

It is not anticipated that the guidance will result in an increase to the number of people presenting to healthcare services each year. It is assumed implementing the recommendations in sections 1.1 and 1.2 of the guidance will drive additional referrals for sleep tests for people with mild OSAHS. This is because people with mild OSAHS are currently less likely to be referred and diagnosed.

The impact the guidance will have on identifying and referring more people with mild OSAHS for a sleep test is challenging to estimate. The resource impact considers the impact of 3 different scenarios: 2%, 5% and 10% increases in annual referrals for the number of people with mild sleep apnoea, and what this means in terms of the activity and cost of diagnostic testing and treatment.

Further analysis of the scenarios is in [appendix A of the resource impact report](#) that accompanies the guidance. The table below summarises the estimated activity for each scenario.

### Estimated number of people with OSAHS being referred, tested and treated using standard NICE assumptions for the population of England

	<b>Current practice</b>	<b>2% increase</b>	<b>5% increase</b>	<b>10% increase</b>
Proportion of people presenting who are referred for a sleep test	<b>18%</b>	<b>20%</b>	<b>23%</b>	<b>28%</b>

Number of people referred and having a sleep test per year	121,000	134,000	154,000	187,000
Number of diagnostic tests each year (including repeat tests)	173,000	176,000	202,500	246,000
Number of people having CPAP each year	3,600	4,000	4,600	5,600
<b>Note:</b> The figures above show estimates for all people with OSAHS being referred, tested and treated. The increase to these figures for each scenario is anticipated to relate to mild OSAHS only.				

The following table provide an illustrative example of the resource impact per 100,000 population of implementing recommendation 1.3.1.

**Illustrative resource impact of offering home respiratory polygraphy using standard NICE assumptions for population of 100,000.**

<b>Increase in mild cases referred and having a sleep test</b>	<b>2%</b>	<b>5%</b>	<b>10%</b>
Increase in number of home respiratory polygraphy tests	46	67	102
Cost of delivering increased number of home respiratory polygraphy tests (£'000) <b>Provider</b>	9	13	19
Resource impact on other diagnostic tests (£'000) <b>Provider</b>	-4	-1	5
<b>Resource impact per 100,000 (£'000)</b>	<b>5</b>	<b>12</b>	<b>24</b>

Implementing recommendation 1.3.1 may lead to fewer repeat tests. This will have capacity benefits for provider services and should lead to optimal treatment.

# Support to put the recommendations into practice

## Support for health professionals

- For a summary of the current evidence base and practical guidance aimed at primary care practitioners, visit the [clinical knowledge summary for obstructive sleep apnoea syndrome](#).
- The [Getting It Right First Time \(GIRFT\) respiratory medicine report](#) provides recommendations in sleep medicine.
- In June 2021, the [MHRA issued a National Patient Safety Alert for Philips ventilator, CPAP and BiPAP devices: Potential for patient harm due to inhalation of particles and volatile organic compounds](#). This applies to all devices manufactured before 26 April 2021.

## Support for people with OSAHS

- NICE recommends that people being referred to a sleep service or who are diagnosed with OSAHS, are provided with information about the condition. Both the [NHS website](#) and the [British Lung Foundation](#) have resources which people could be referred to.

## Training and development

- The [Association for Respiratory Technology and Physiology offer a range of training](#) for health professionals on topics such as spirometry, oximetry and respiratory polygraphy.
- The [Royal Society of Medicine offer training resources](#) on sleep medicine.

## Lifestyle advice support

- NICE recommends appropriate lifestyle changes be discussed with people with OSAHS. For support with lifestyle advice, the [NHS better health pages](#), offer free tools and support.
- Healthcare professionals can signpost people to the healthy living resources on weight loss at the [Patient website](#).
- The [NHS Digital Weight Management Programme](#) is freely available to support adults living with obesity who also have a diagnosis of diabetes or hypertension or both, to manage their weight and improve their health. All GPs and community pharmacies can refer people to it. There is also a [programme for NHS staff](#).
- The [Kings Fund](#) and [NHS long term plan](#) have publications on tackling obesity.
- The [Drinkaware website provides resources, advice and support](#) for health practitioners to help reduce alcohol harm.
- [NICE's local practice collection](#) contains examples of case studies supporting lifestyle changes such as [weight management](#), [smoking cessation](#) and [alcohol-use disorders](#).

## Remote management by service

The [Frimly Health sleep service](#) was initially setup in 2008 and now establish between 600 to 800 new patients on CPAP machines per year. Most patients are managed by physiotherapists or nursing staff and patients with complex issues are reviewed either by the nurse consultant or respiratory consultant. The service finds large numbers of patients can be reviewed and responded to remotely, by post and telephone. It helps manage a growing service, keep hospital foot fall to a minimum and manage the limited clinic spaces that are available.

The Guideline Resource and Implementation Panel

The Guideline Resource and Implementation Panel reviews NICE guidelines that have a substantial impact on NHS resources. By 'substantial', we mean that:

- implementing a single guideline recommendation in England costs or saves more than £1 million per year, or
- implementing the whole guideline in England costs or saves more than £5 million per year.

Panel members are from NICE, NHS England and NHS Improvement, Health Education England and NHS Clinical Commissioners. Topic experts are invited for discussions on specific topics, for example, from the Office for Health Improvement and Disparities, and voluntary and community support organisations.

The panel does not comment on or influence the guideline recommendations outside NICE's usual consultation processes and timelines.