Assessment for OSAHS, OHS and OSAHS-COPD overlap syndrome

NICE National Institute for Health and Care Excellence

Definitions

- **Obstructive sleep apnoea/hypopnoea syndrome (OSAHS):** upper airway narrows or closes during sleep causing under breathing (hypopnoea) or stopping breathing (apnoea). The resulting waking or fragmented sleep can lead to excessive sleepiness, tiredness or fatigue
- **Obesity hypoventilation syndrome (OHS):** obesity (BMI ≥30 kg/m^2), raised arterial or arterialised capillary CO_2 level when awake, and breathing abnormalities during sleep (obstructive apnoeas/hypopnoeas or hypoventilation or both)
- **COPD–OSAHS overlap syndrome:** both chronic obstructive pulmonary disease (COPD) and OSAHS. The combined effect of the conditions is greater than either alone

Features of possible OSAHS:

- snoring
- witnessed apnoeas
- unrefreshing sleep
- waking headaches
- excessive sleepiness, tiredness or fatigue
- nocturia
- choking during sleep
- sleep fragmentation or insomnia
- cognitive dysfunction or memory impairment

Features of possible nocturnal hypoventilation:

- waking headaches
- peripheral oedema
- hypoxaemia (<94% on air)
- unexplained polycythaemia

Risk of OSAHS increased in people with:

- obesity or overweight
- obesity or overweight in pregnancy
- treatment-resistant hypertension
- type 2 diabetes
- cardiac arrythmia, particularly atrial fibrillation
- stroke or transient ischaemic attack
- chronic heart failure
- moderate or severe asthma
- polycystic ovary syndrome
- Down's syndrome
- non-arteritic anterior ischaemic optic neuropathy
- hypothyroidism
- acromegaly

Person with 2 or more features of OSAHS (see below if BMI ≥30 kg/m^2 or the person has COPD)

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- Take a sleep history and assess for OSAHS
- Use the Epworth Sleepiness Scale, but do not use it alone to determine referral
- Consider also using the STOP-Bang Questionnaire

Person with BMI ≥30 kg/m^2 and features of OSAHS or nocturnal hypoventilation

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- Take a sleep history and assess for OHS
- Use the Epworth Sleepiness Scale, but do not use it alone to determine referral

Person with COPD and features of OSAHS or nocturnal hypoventilation

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- Take a sleep history and assess for OSAHS-COPD overlap syndrome
- Use the Epworth Sleepiness Scale, but do not use it alone to determine referral
- Consider also using the STOP-Bang Questionnaire
- Offer spirometry to assess severity of COPD

When referring people with suspected OSAHS, OHS or OSAHS-COPD overlap syndrome to a sleep service, provide information on:

- underlying causes of their condition
- what sleep studies involve
- why treatment is important
- what treatments are available
- the impact of excessive sleepiness on safe driving and occupational risk
- Driver and Vehicle Licensing Agency (DVLA) guidance, including when there is a legal requirement to notify the DVLA
- lifestyle changes, including weight loss, increasing physical activity, and avoiding alcohol excess and sedatives before sleep
- sources of support

To support prioritisation, include in referral letters:

- assessment scores
- effect of sleepiness on the person
- comorbidities
- occupational risk
- oxygen saturation and blood gas values, if available

For suspected OHS, also include: BMI, and history of emergency admissions and acute non-invasive ventilation

For people with COPD, also include: BMI, severity and frequency of COPD exacerbations, home use of oxgen therapy and any history of acute non-invasive ventilation

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