Obstructive Sleep Apnoea

On-the-spot management

INFORMATION FOR HEALTH PROFESSIONALS

Sleep Health
Primary Care
Resources

Definition

During sleep, breathing may be interrupted by partial or complete obstruction of the upper airway. Obstructive sleep apnoea leads to sleep fragmentation, excessive daytime sleepiness, and fatigue. It increases the risk of cardiovascular, mental health, neurocognitive and metabolic complications as well as motor-vehicle and work place accidents. Partial obstruction (hypopnoea) is a reduction of airflow ≥ 10 seconds associated with oxygen desaturation and/or EEG arousal. Complete obstruction (apnoea) is defined as cessation of airflow ≥ 10 seconds.

Risk factors

- Male, post-menopause for women
- Age > 50 years
- Obesity
- Excess alcohol consumption
- Enlarged tonsils
- Craniofacial abnormalities (e.g. small mandible)

The prevalence of OSA is increased with

- Type 2 diabetes
- Hypertension
- Cardiovascular disease
- Prescribed opioids
  (risk factor for central sleep apnoea)
- Sedative medications
- Insomnia

Ask about symptoms

- Snoring, witnessed apnoeas (bed partner), awaking gasping/ choking
- Perceived difficulties initiating and/or maintaining sleep
- Excessive daytime sleepiness (ie. Score ≥16 on the ESS)
  (www.sleepprimarycareresources.org.au/questionnaires/ess)
- Red flags- Sleepiness with driving, falling asleep whilst driving, MVA related to sleepiness, commercial driver. AusRoads resources:
  austroads.com.au/publications/assessing-fitness-to-drive/ap-g56/sleep-disorders/medical-standards-for-licensing-9)
- Decreased memory, concentration
- Lowered mood
- Impaired work performance

Examination

- Blood pressure
- BMI > 30kg/m^2
- Waist circumference:
  male > 102cm, female > 88cm
- Neck circumference:
  male > 42cm, female > 39cm
- Upper airway assessment – tonsillar hypertrophy, Mallampati score, nasal patency
  (www.sleepprimarycareresources.org.au/osa/physical-examination)

Screening for OSA

Can refer directly for sleep study (if patient meets following MBS criteria):

- ESS ≥ 8 AND
- OSA50 ≥ 5 OR STOP-Bang ≥ 3 (www.sleepprimarycareresources.org.au/osa/questionnaires)

Can refer to sleep physician if patient does not meet MBS criteria for direct GP referral for PSG.

Consider sleep physician referral for patients with co-morbid sleep or cardio-respiratory factors: www.sleepprimarycareresources.org.au/osa/investigations-and-referral

Investigations

Home sleep study OR

In-laboratory polysomnography (if co-morbidities)

www.sleepprimarycareresources.org.au/osa/investigations-and-referral

Apnoea hypopnoea index (AHI) = average number of apnoea and hypopnoea events per hr of sleep.

AHI and symptoms (e.g., sleepiness) do not always correlate so need to consider independently.

Severity	AHI
Normal	<5
Mild	5-15
Moderate	16-30
Severe	>30

Management

- Educate patient about OSA
- Weight loss (for overweight, obesity), 5-10% weight loss can improve symptoms and OSA severity
- Lifestyle advice – smoking cessation, rationalise alcohol intake
- Treat complications (eg hypertension)
- Driving advice (adhere to safe driving) (austroads.com.au/publications/assessing-fitness-to-drive/ap-g56/sleep-disorders/medical-standards-for-licensing-9)
- Positional therapy- avoid sleeping supine
- Trial CPAP (moderate to severe OSA, symptomatic mild OSA) www.sleephealthfoundation.org.au/cpap-directory
- Oral appliance (2nd line if intolerant CPAP, or 1st line mild OSA)
- Follow up in 4-6 weeks to review progress
- Refer sleep physician if appropriate (See below criteria): www.sleepprimarycareresources.org.au/osa/investigations-and-referral

☐ Very severe OSA, Excessive daytime sleepiness (ESS ≥ 16)

☐ Sleepiness-related accident, OSA and patient represents a significant driving risk

☐ OSA and high-risk occupation e.g., commercial driver, heavy machinery operator

☐ Severe morbid obesity (BMI ≥ 45 kg/m^2)

☐ Alcohol abuse, chronic opioid use

☐ Heart failure, COPD, neuromuscular or chest wall deformity

☐ Uncontrolled psychological or psychiatric disorders

☐ Supplemental oxygen required, waking oxygen level ≤ 92%

☐ Serum bicarbonate ≥ 28 mmol/L

☐ Awake hypercapnia or sleep hypoventilation syndrome (e.g., CO2 ≥ 45 mmHg or SpO2 ≤ 90% for ≥ 30% of total sleep time on the diagnostic study)

☐ Other significant sleep, respiratory, or cardiac disorders

Prepared by the GP Education Subcommittee; endorsed by the Education Committee and ASA Board.