Obstructive Sleep Apnoea (OSA) in Adults

Disclaimer

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Background

About obstructive sleep apnoea (OSA) in adults

➢ A common medical problem occurring in, but not confined to, at least 10% of men and 4% of women.
➢ Part of a spectrum of sleep-disordered breathing characterised by disturbed sleep arising from increased upper airway resistance.
➢ Sometimes associated with excessive daytime sleepiness, but may be asymptomatic.
➢ Important risk factor for both hypertension and cardiovascular disease with untreated OSA conferring a 2 to 4-fold increase in risk of a cardiovascular event.
➢ Increase in severity of OSA is associated with increase in vascular risk, work and motor vehicle accidents, and cognitive decline.

Red flags

Rapidly progressive obstructive sleep apnoea

Assessment

1. Take a sleep history, including symptoms of OSA.

Symptoms of OSA

➢ Excessive daytime sleepiness
➢ Witnessed apnoeas
➢ Disturbed or unrefreshing sleep
➢ Sleepiness-related accident
➢ Loud snoring

**Loud snoring**
Consider requesting assessment if any of the below are present. Loud snoring which:
- disturbs partner > 3 nights a week
- is audible in other rooms
- occurs despite alcohol abstinence
- occurs when in lateral sleeping position
- occurs > 10% of the night.

➢ Women may present with atypical symptoms:
  - Insomnia
  - Morning headaches
  - Mood disturbance

2. Assess somnolence using both the [Epworth Sleepiness Scale](#) and the [STOP BANG Questionnaire](#). Both scales are required before sleep assessment or specialist management.

3. Identify at-risk patients through risk factors or the presence of other clinical features suggestive of OSA.
Other clinical features

➢ Treatment resistant hypertension
➢ Nocturnal cardiac arrhythmias including atrial fibrillation
➢ Repeated exacerbations of COPD or heart failure
➢ Unexplained polycythaemia
➢ Sleepiness related accidents

Risk factors

➢ Obesity
➢ Men twice as commonly affected as women
➢ Increasing age
➢ Smoking
➢ Alcohol use
➢ Neuromuscular disease
➢ Medications
➢ Nasal obstruction, macroglossia, retrognathia
➢ Adenotonsillar hypertrophy

4. Ask about medications that contribute to sleep apnoea.

Medications

➢ Antidepressants
➢ Anticholinergics
➢ Benzodiazepines
➢ Anti-epileptics
➢ Narcotics

5. Examine for adenotonsillar hypertrophy.

Adenotonsillar hypertrophy

• Note any conditions that increase risk of OSA, such as cranofacial anomalies, Down syndrome, Spina bifida
• Assess for adenoid facies, mouth breathing
➢ If overweight or obese, assess height and weight
➢ Atopic appearance – features of allergic rhinitis such as allergic crease, inflamed enlarged turbinates
➢ Assess tonsillar size occupying pharyngeal diameter e.g., 50% means half of pharyngeal diameter occupied by tonsillar tissue:

**Grade 0**: Within tonsillar fossa

**Grade 1**: 0-25% tonsils visible

**Grade 2**: 25 to 50% tonsils "halfway" to uvula

**Grade 3**: 50 to 75% tonsils near uvula
Grade 4: > 75% (kissing tonsils)

- Signs of middle ear disease

Management

Not all patients with OSA will require treatment.

1. Assess whether treatment is required, considering these factors.

Factors considered in OSA management

- Severity
- Symptoms, particularly excessive daytime sleepiness
- Social factors e.g., commercial drivers, significant psychosocial stressors
- Medical comorbidities, especially high vascular risk

Treatment is considered for:

- all patients with severe OSA
- patients with any degree of OSA, and a significant symptom or medical comorbidities.

Comorbidities

- Hypertension
- Atrial fibrillation
- Congestive cardiac failure
- Stroke
- Diabetes

- Snoring with or without OSA, as a cause of serious social disharmony

1. If OSA suspected, refer for sleep medicine specialist assessment. Management options for OSA include:

Oral appliances

- Indicated for socially disruptive snoring with mild OSA.
- Used for patients when CPAP is not tolerated.
- Requires presence of top and bottom teeth.
**CPAP Therapy**

- Involves splinting the upper airway open.
- Possible side-effects include:
  - dry mouth or nasal passages
  - skin irritation or rash from the mask
  - reflux or sensation of abdominal bloating (rare).

2. Consider changing any medication that *decreases respiratory drive or motor tone*, or *increases upper airway dryness*.

**Medications that increase upper airway dryness**

- *Anticholinergics*
- *Antidepressants with anticholinergic effects*

**Medications that decrease respiratory drive or motor tone**

- *Benzodiazepines*
- *Anti-epileptic medications*
- *Narcotics*

3. Manage lifestyle factors:
   - weight loss
   - minimising alcohol
   - smoking cessation
   - exercise – regular exercise, even without weight loss, has been shown to reduce OSA severity
   - avoid supine sleep
   - minimising sleep deprivation.

4. If patient is excessively sleepy, or is in a high risk occupation e.g., commercial driver, consider early referral for *sleep medicine specialist assessment*. You may need to discuss their fitness to drive.

5. Where nasal obstruction of craniofacial abnormalities exist, consider early referral to *ENT surgeon*.

**Referral**

- Refer for *sleep medicine specialist assessment* if:
  - patient is excessively sleepy or is in a high risk occupation.
  - suspected OSA requiring treatment.

- Refer for *urgent or routine ENT referral* if:
  - Macroglossia
  - Nasal obstruction
  - Significant tonsillar hypertrophy

- If obesity identified as a cause, refer for weight management.
If alcohol intake identified as a cause, consider alcohol brief intervention.
If OSA affects fitness to drive:
   • complete a [medical report](#) and send to **VicRoads** driver licensing authority.

**VicRoads Medical Review**
PO Box 2504, Kew VIC 3101
Phone (03) **9854-2892** (Health professional enquiry line)
Phone **13-11-71** (general enquiries)
Email: medicalreview@roads.vic.gov.au
Web: VicRoads – [Information for Health Professionals](#)

• refer to an appropriate specialist for review.
• refer for [driving assessment](#).

**Information**

**For health professionals**

- American Sleep Apnea Association – [Epworth Sleepiness Scale](#)
- Austroads – [Assessing Fitness to Drive: For Commercial and Private Vehicle Drivers](#) (pages 105 to 109)
- Medicine Today – [Obstructive Sleep Apnoea in Adults: Identifying Risk Factors and Tailoring Therapy](#)
- Sleep Health Foundation
- [Sleep Services Australia](#)

**For patients**

- Better Health Channel – [Sleep Apnoea](#)
- Sleep Health Foundation – [Obstructive Sleep Apnoea](#)
- Snore Australia – [CPAP Information](#)

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