Obstructive Sleep Apnea

Under-diagnosed and over-consequential · Ask the partner, not just the patient

STOP-BANG ≥ 3
= high risk, investigate

SUSPECT IT *the patient rarely volunteers the diagnostic symptom*

ASK ABOUT

Witnessed apneas — ask the bed partner, since the patient cannot report them · **loud habitual snoring** · **choking or gasping arousals** · non-restorative sleep and morning headache · **excessive daytime sleepiness**, quantified with the Epworth score · nocturia · poor concentration and low mood.

STOP-BANG

Snoring · **T**iredness · **O**bserved apnea · **P**ressure (hypertension) · **B**MI > 35 · **A**ge > 50 · **N**eck circumference > 40 cm · **G**ender male. **≥ 3 indicates high risk**, and **≥ 5 substantially raises the probability of moderate-to-severe disease**.

WHO TO SCREEN ACTIVELY

Resistant hypertension — a very high yield group · **atrial fibrillation**, particularly recurrent after cardioversion or ablation · heart failure · type 2 diabetes · obesity · **before bariatric surgery** · **professional drivers** · stroke.

CONFIRM AND GRADE *the apnea-hypopnea index*

Element	Detail
Home sleep apnea testing	Appropriate for **uncomplicated adults with a high pre-test probability** of moderate-to-severe OSA. Cheaper, quicker, and done in the patient's own bed. **A negative or technically inadequate home test does not exclude OSA** — escalate to full study.
Polysomnography	Required where there is **significant cardiorespiratory disease, neuromuscular disease, suspected hypoventilation, opioid use, or another sleep disorder** — and when the home study is negative but suspicion persists.
Severity by AHI	**Mild 5–15 · Moderate 15–30 · Severe > 30** events per hour. **Symptoms and comorbidity matter as much as the number** — a symptomatic patient with mild disease may need treatment more than an asymptomatic one with moderate.
Distinguish from OHS	**Obesity hypoventilation syndrome** is defined by **daytime hypercapnia**. **Check a bicarbonate or blood gas** in obese patients — a raised bicarbonate is the cheapest screen. OHS needs **non-invasive ventilation**, not CPAP alone, and is frequently missed.

TREAT IT *CPAP works if it is worn — adherence is the whole battle*

1. **CPAP is first-line** for moderate-to-severe disease. It reliably improves **sleepiness, quality of life and blood pressure**, particularly in resistant hypertension. Benefit is proportional to hours used, so **adherence is the outcome that matters**.
2. **Chase adherence actively.** The commonest reasons for abandoning CPAP are **mask fit, nasal congestion, claustrophobia and dry mouth** — all fixable with mask changes, humidification, nasal steroids and early follow-up. **Review in the first weeks**, when most patients decide whether they will persist.
3. **Weight loss is disease-modifying** and can be curative in some. Address it directly, including bariatric surgery and pharmacotherapy where appropriate, rather than treating CPAP as the whole answer.
4. **Alternatives** for CPAP-intolerant or milder disease: **mandibular advancement devices**, **positional therapy** for supine-predominant disease, ENT assessment for correctable anatomy, and **hypoglossal nerve stimulation** in selected patients.
5. **Address the driving question explicitly.** Untreated OSA with sleepiness carries a real crash risk. **Advise on driving, document the advice**, and follow local licensing requirements — this is a legal duty as well as a clinical one, and it is regularly skipped.

THE NUMBERS THAT GET QUOTED *scores, severity and what counts as adherence*

STOP-BANG

One point each, out of 8. **0-2 low risk · 3-4 intermediate · 5-8 high risk. A score of 3 or more should trigger perioperative precautions**, and 5 or more predicts moderate-to-severe disease well enough to act on before a sleep study is available.

SEVERITY BY AHI

Mild 5-15 · moderate 15-30 · severe above 30 events per hour. **Treat the patient, not the index**: a symptomatic patient at 12 with resistant hypertension needs therapy more than an asymptomatic one at 20.

WHAT COUNTS AS ADHERENCE

The accepted standard is **at least 4 h a night on at least 70% of nights**, and it is what insurers check. **Download the machine's data rather than asking**, since reported and actual use diverge widely. Most failures happen in the **first two weeks**, so review early.

WHY IT MATTERS ON THE WARD *the inpatient consequences*

PERIOPERATIVE RISK

OSA raises the risk of **difficult airway, postoperative respiratory depression and unplanned critical care admission**. **Bring the patient's own CPAP machine into hospital** and use it postoperatively. **Minimize opioids and sedatives**, use multimodal analgesia, monitor oxygenation, and avoid the supine position where possible.

CARDIOVASCULAR CONSEQUENCES

Hypertension — particularly resistant hypertension — plus **atrial fibrillation with high recurrence after cardioversion or ablation if untreated**, pulmonary hypertension, stroke and coronary disease. In a patient whose blood pressure or atrial fibrillation will not behave, **ask about snoring and sleepiness** before adding another drug.

NOT ALL APNEA IS OBSTRUCTIVE *the distinction changes the device entirely*

Type	Mechanism, clues and treatment
Obstructive	**Effort continues against a closed upper airway.** Snoring, obesity, witnessed struggle. **CPAP** splints the airway open.
Central	**No respiratory effort** — the drive itself pauses. Consider with **heart failure** (Cheyne-Stokes respiration), **opioid use**, stroke, and at altitude. **CPAP is not automatically the answer**; treatment is directed at the underlying cause, and **adaptive servo-ventilation is contraindicated in symptomatic heart failure with reduced ejection fraction**, where it increased mortality.
Obesity hypoventilation	**Daytime hypercapnia** with obesity, not explained by another cause. Often coexists with OSA. Needs **non-invasive ventilation** and weight management, and carries high mortality if missed. **Suspect it on a raised bicarbonate.**
Treatment-emergent central	Central events appearing **after** starting CPAP for obstructive disease. Often settles with time on therapy — refer back to the sleep service rather than abandoning treatment.

PEARLS & PITFALLS

- **Ask the bed partner.** Witnessed apneas are the most useful symptom and the patient cannot report them.
- **Screen resistant hypertension and recurrent atrial fibrillation.** The yield is high and treatment changes both.
- **Check a bicarbonate in the obese patient** — it is the cheapest screen for obesity hypoventilation, which needs NIV rather than CPAP.
- **A negative home sleep study does not exclude OSA.** If suspicion is high, arrange full polysomnography.
- **Bring the CPAP into hospital.** Postoperative and post-sedation respiratory depression in untreated OSA is a recognized cause of avoidable arrest.
- **Document the driving conversation.** Sleepiness at the wheel is the consequence with the widest impact.

References: AASM clinical practice guidelines on diagnostic testing and on the treatment of obstructive sleep apnea with positive airway pressure · STOP-BANG validation studies · ATS guidance on obesity hypoventilation syndrome.

Educational aid; verify against local sleep service protocol, licensing rules and patient factors.

roundsrx.com
roundsrx Infographic Series · #127