key points

SELECTED BY
Dr Peter Saul
GP, Wrexham and associate GP Dean for North Wales

In OSA, the patient suffers repeated episodes of apnoea caused by narrowing or closure of the pharyngeal airway during sleep. The degree of closure of the airway leads to periods of either apnoea (complete) or hypopnoea (partial) obstruction. Population-based surveys estimate that 2-4% of the middle-aged population have OSA, which is similar to the prevalence of diabetes and asthma. Although understanding of the condition has improved considerably, it is estimated that 85-90% of sufferers still remain undiagnosed.

OSA is not only a cause of excessive daytime somnolence leading to an increased risk of accidents on the road and poor work performance, but also a major cause of social dysfunction, reduced quality of life related to poor health, and mood disorders. Untreated OSA predicts a substantially increased risk of hypertension, cardiovascular disease, cerebrovascular disease, depression, and mortality.

Wherever OSA is considered, the following questions should be asked: Is this patient falling asleep regularly against their will? Is this patient often sleepy while driving? Is this patient experiencing difficulty at work because of excessive sleepiness? Is sleep refreshing? Is surgery for snoring being considered (OSA should be excluded first)? The clinical history should then include a review of other respiratory symptoms, nocturnal choking, and full past medical problems including a review of all medications. Finally, the patient should also be questioned about smoking and alcohol history and their occupation. Patients who do shift work should be encouraged to keep a sleep diary.

The gold standard for investigation of OSA is polysomnography. The polysomnogram records multiple types of information simultaneously including electroencephalogram, electromyogram, electro-oculogram, airflow, heart rate and rhythm, arterial oxygen saturations and chest wall and upper abdominal wall movements. It is possible to diagnose almost 90% of OSA patients from limited sleep studies often conducted on a domiciliary basis with portable diagnostic equipment.

Symptomatic mild and moderate OSA is usually treated in the first instance with mandibular advancement splinting (MAS) devices. In cases of moderate to severe OSA, treatment is in the form of continuous positive airway pressure (CPAP) therapy. Surgery is used in specific cases where anatomical abnormalities or obstructions are present in the nose or airways. Options include tonsillectomy, adenoidectomy, laser uvuloplasty, laser uvulopalatoplasty and less invasive measures offered as day surgery.