

2nd of 5 blogs, Over the next week, looking at Central Sleep Apnoea and the guidelines and recommendations into identifying and reporting of CSA.

2. Key signs and symptoms of Central sleep Apnoea - what to look out for?

Signs and Symptoms of Central Sleep Apnoea (CSA):

- Abnormal breathing patterns during sleep, such as breathing that slows down, speeds up, and pauses and also a periodic breathing pattern
- Excessive daytime sleepiness
- Night time awakenings
- Sudden shortness of breath or chest pains at night
- Difficulty focusing
- Morning headaches

CSA is often a component of severe sleep apnoea hypopnea syndrome (SAHS), rather than occurring alone. [1] Unlike obstructive sleep apnoea, snoring is not a prominent feature of central sleep apnoea [2].

Patients with central sleep apnoea may also be less obese compared to those with obstructive sleep apnoea. However, research conducted on overweight teenagers revealed that CSAs are intricate occurrences involving partial collapse of the airway, potentially exacerbating the severity of OSA.

Perhaps it may be worth reconsidering the exclusion of central apnoea from the apnoea-hypopnea index (AHI) when assessing the paediatric population [3].

The symptoms of central sleep apnoea are often related to the underlying medical condition causing it, such as heart failure, stroke, or neuromuscular disorders. Early detection and diagnosis can be challenging based solely on self-reported symptoms, so polysomnography is the gold standard diagnostic test, however polygraphy may also be used to detect CSA [4].

Key Risk Factors for Central Sleep Apnoea:

- Congestive heart failure
- Hypothyroidism
- Kidney failure
- Certain neurological conditions like Parkinson's disease, Alzheimer's, and Motor neurone disease
- Brainstem damage due to brain injuries, strokes, or oedema
- Use of certain opioid medications e.g. Morphine, oxycodone
- Exposure to high altitudes above 8,000 feet
- Use of positive airway pressure (PAP) devices for obstructive sleep apnoea
- -Central sleep apnoea is more common in older adults, particularly men over 65 years old, but can develop in anyone regardless of age or sex. [4-5]

The reported prevalence of CSA can fluctuate based on the demographic under examination and the standards utilised for diagnosis. CSA is less common than obstructive sleep apnoea (OSA) in adults, constituting approximately 5-10% of sleep apnoea instances. However, in specific groups such as individuals with certain medical conditions like heart failure or stroke, the prevalence of CSA may be higher [6].

Given the very recent publications on CSA by KOL's in the field of sleep medicine, is it time to shine the spotlight on this aspect of Sleep apnoea and consider creating updated guidelines?

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3. Kato RM, Kim YC, Joshi B, Loloyan S, Wee CP, Wu Z, Tran WH, Keens TG, Khoo MC, Nayak KS, Davidson Ward SL. Upper airway narrowing during central apnoea in obese adolescents. *Annals of the American Thoracic Society*. 2018 Dec;15(12):1465-71.
4. Randerath W, Baillieul S, Tamisier R. Central sleep apnoea: not just one phenotype. *European Respiratory Review*. 2024 Jan 31;33(171).
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