

## A shot, a mask, or a scalpel? Reimagining obstructive sleep apnoea treatment in the ozempic era

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With the explosion of Glucagon-Like Peptide-1 (GLP-1) receptor agonists like Ozempic and Mounjaro in the public eye for dramatic weight loss, attention is now shifting to their potential clinical role in obstructive sleep apnoea (OSA) management. While emerging studies suggest GLP-1 RAs may improve OSA severity, no systematic comparisons exist between GLP-1 RAs and established treatments such as continuous positive airway pressure (CPAP) or bariatric surgery. This presentation aims to compare the efficacy of GLP-1 RAs, CPAP, and bariatric surgery in improving OSA outcomes.

**Methodology:** A systematic search of PubMed, Embase, and Cochrane was conducted up to April 2025. Randomised controlled trials and prospective cohort studies involving adults with confirmed OSA were included. The primary outcome was change in Apnoea-Hypopnea Index (AHI).

**Results:** CPAP therapy demonstrated modest reductions in AHI, ranging from 4.1 to 6.3 events/hour. However, evidence suggests that CPAP's effectiveness may be limited by variable adherence. Bariatric surgery achieved more substantial reductions, with reported decreases in AHI ranging from approximately 12 to 25.5 events/hour across studies, with some patients achieving complete resolution of OSA (AHI < 5). GLP-1 receptor agonists showed promising intermediate results, achieving mean AHI reductions of approximately 12 events/hour, even prior to substantial weight loss. However, GLP-1 RAs were associated with a higher frequency of adverse events.

**Conclusion & Significance:** GLP-1 receptor agonists are poised to disrupt traditional OSA management, offering the first credible non-device, non-surgical alternative to CPAP and bariatric surgery. As a new frontier in sleep medicine, their transformative impact demands urgent head-to-head trials to redefine therapeutic standards and clinical guidelines.

### Biography

Aneeqa Ahmed is a UK-trained doctor, graduating from the University of Bristol in 2020. She has recently completed otolaryngology core surgical training in Manchester, England, and has experience in cardiothoracic and general surgery. She has a passion for teaching, as shown through her design and delivery of a national teaching programme acting as a "crash course" in surgery. She also has a passion for research and recently published a systematic review on novel techniques for laryngeal malignancy diagnosis and is currently undertaking a research role at Wythenshawe Hospital. She enjoys organising events and recently lead members of a head and neck cancer charity to create a fundraising gala. Using her teaching experience, organisational skills and surgical skills, she aims to build on these to become a well-rounded otolaryngology surgeon. Her current special interest is rhinology, and she has recently conducted work for a national olfactory audit.

**Received:** 15 May, 2025; **Accepted:** 19 May, 2025; **Published:** 15 December, 2025