

# Beyond CPAP: Evolving approaches to the management of sleep apnea

**Goh Liang Chye**

Faculty of Medicine, University of Malaya, 50603 Kuala Lumpur, Wilayah Persekutuan Kuala Lumpur, Malaysia

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## **ABSTRACT**

Continuous positive airway pressure (CPAP) remains the standard therapy for obstructive sleep apnea (OSA), yet adherence challenges and the heterogeneity of OSA pathophysiology demand a broader, patient-centered toolkit. This presentation reviews contemporary non-CPAP strategies and a practical framework for selecting the right therapy for the right patient. We will outline a “treatable-traits” approach that integrates clinical phenotyping (symptoms, craniofacial pattern, comorbidities), endotyping (loop gain, arousal threshold, upper-airway muscle responsiveness), and endoscopic findings (including DISE) to guide therapy. Evidence and real-world outcomes will be summarized for: oral appliance therapy with titration and objective verification; positional therapy with modern vibrotactile devices; lifestyle, weight reduction, and metabolic optimization; myofunctional/oropharyngeal exercises; nasal optimization to reduce upper-airway resistance; targeted palatal procedures; tongue-base reduction (including minimally invasive and transoral robotic approaches); maxillomandibular advancement for selected phenotypes; and hypoglossal nerve stimulation with updated selection criteria and programming principles. Strategies for monitoring efficacy (HSAT/PSG), mitigating complications, and sequencing or combining therapies will be emphasized, along with shared decision-making, expectation setting, and longitudinal follow-up.

**Keywords:** Continuous Positive Airway Pressure, Sleep Apnea, Obstructive, Polysomnography, Surgery