

Treating OSA Patients Right: Commentary on *Identifying the Appropriate Therapeutic Position of an Oral Appliance* by Sheats et al. (2020)

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We anticipated that the consensus report on identifying a therapeutic position of an oral appliance (OA) would offer leadership and vision in standardizing treatment protocols based on existing evidence. Unfortunately, the report is a disappointing departure from the stated mission of the AADSM.

Sheats and colleagues¹ define the appropriate therapeutic position as one that improves “*signs, symptoms, or objective indices of sleep-related breathing disorders.*” This is deeply troubling. When monitoring obstructive sleep apnea (OSA), signs or symptom reports are not equivalent to objective indices of respiratory status. Snoring is a poor indicator for the resolution OSA because: snoring is only moderately correlated to respiratory indices² and reports of snoring are unreliable³. Questionnaires screen for sleep apnea, but no validated questionnaires that track improvement in OSA exist. Therefore, they should not be relied upon as the sole guidance for OA titration. Equivocating signs and symptoms with objective measures of OSA in determining the therapeutic position of an oral appliance is a regressive repudiation of evidence-based decision making.

Sheats and colleagues assert that, “*no definition of treatment success exists, ... OAT providers should ... individualize treatment goals for each patient.*” This assertion is incorrect for OSA patients. The task force cites many studies that used the common definitions for OAT success: reduction in AHI/REI to less than 5hr⁻¹ or 10hr⁻¹, with or without a 50% reduction in AHI/REI. Setting aside debates about which definition of success is most useful or whether a single index can adequately characterize a complex condition like OSA,⁴ definitions of success exist, are widely used, and are helpful in managing OSA treatment.

Including respiratory indices in defining treatment success enhances treatment effectiveness. Several studies¹ compared using signs and symptoms alone with using objective respiratory indices (pulse oximetry or polysomnogram (PSG)) to direct OA titration. Using objective respiratory measures substantially more patients were able to reach a satisfactory treatment outcome¹. Titration protocols that employ objective measurement of respiratory parameters should be recommended over

titration by signs and symptoms alone. Therefore, oral appliance titration should be performed during attended PSGs, by serial HST, or by validated, objective automatic home titration systems⁵. Endorsing treatment protocols based on signs and symptoms alone does a disservice to OSA patients.

CITATION

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DISCLOSURE STATEMENT

DAH, SC, and JER are employees of Zephyr Sleep Technologies. SC and JER own stock in Zephyr Sleep Technologies.