I would like to thank Drs Scalzitti, Mysliwiec, and O’Connor for their comments on the omission of device usage data in “Upper Airway Stimulation for Obstructive Sleep Apnea: 5-Year Outcomes.” Device usage is an important variable with cranial nerve implant technology, and not including this data point was inadvertent. The study methodology included patient self-reported device usage at all scheduled follow-up visits. For the STAR trial at 5-year follow-up, 92 patients completed the study, and 80% reported using the device every night. Patients volunteering for 5-year polysomnography (n = 71) reported 81% nightly use, and reports did not differ between responders and nonresponders according to Sher criteria for surgical success (apnea-hypopnea index [AHI] < 20 events per hour and > 50% reduction). Among all patients who were eligible for 5-year follow-up, 74 of 110 (67%) reported nightly use.

Disease burden in sleep apnea is the result of many variables. How best to measure disease burden in sleep apnea is not established. It is increasingly accepted that the commonly used AHI metric weakly correlates to clinical outcomes for many patients. For devices such as upper airway stimulation, “effective AHI,” which accounts for residual “therapy on” AHI and adherence, seems intuitively more appropriate. However, direct data supporting this measure are lacking. Ultimately, disease burden for patients with obstructive sleep apnea is likely the result of multiple factors. The nature and severity of residual respiratory events over time, oxygen desaturation measures, the impact of obstructive sleep apnea on sleep and sleepiness, phenotypic properties of the individual patient, and other measures may all contribute. Early attempts at including multiple variables to create a disease measure were suggested for surgical patients, but none are yet validated. Such measures are necessary to better assess and compare the benefits versus harms of medical and surgical therapies.

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