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**THE NEW TAP-PAP CUSTOM FACE MASK FOR CPAP COMPLIANCE AND
SATISFACTION**

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Introduction: Experience of all sleep healthcare providers and previous validated studies have established a well known fact that the mask on the CPAP is the major obstacle to CPAP compliance. Compliance nationwide has been shown to be 51%. The development of the Thornton Adjustable Positioner (TAP) to the TAP-PAP Custom Mask (CM) combines the intra-oral mandibular advancement appliance with a custom molded shield attached to the TAP, thereby eliminating the need for straps and stabilizing the mask from leakage by both taking an impression of the face for a perfect fit and by its connection to the skull base through the TAP appliance (no straps).

Methods: TAP-PAP Custom masks were fabricated (Chuck Lloyd at TMD Technologies) for 25 patients that were referred to our sleep center. The patients have been diagnosed and titrated for a CPAP with an off the shelf stock mask (SM). They all had a lack of symptomatic success and were about to abandon therapy. These patients were fitted for the CM with a face impression and have complied with CPAP therapy. Telephone survey was accomplished to compare the CM and the SM satisfaction of the patient and bed partner (from 0 to 5 (five being very dissatisfied)) and compliance comparing CM and SM with the number of hours worn per night.

Results: Of 25 CM patients, there were two that left therapy for other options, and three no contacts which leaves 20 contacted for the survey. The average PSG readings for the group were RDI 48, AHI 42, PSO_2 77%, and average CPAP pressure was 15 cm H_2O . All had severe OSA. The unresolved chief sleep complaints most often stated were fatigue (14) and interrupted sleep (10). Top SM complaints were leakage (16) and strap discomfort (eight). Most patients stated that they previously wore their SM over 7 h per night (nine) with the remaining evenly distributed between 0 and 6. This compared to the CM that was worn by most over 7 h per night (11) and 4–6 h/night (five). The SM satisfaction by most was rated level 4 and 5 (very unsatisfactory; 14). The CM was rated very satisfactory by most (16) with none stating unsatisfactory. Bed partners were almost unanimous in their satisfaction (15/16) with one being somewhat satisfied.

Conclusion: Satisfaction and compliance of the TAP-PAP Custom Mask were far superior to the stock mask. Bed partner satisfaction was also established in this survey. Because the CM was successful in resolving sleep symptoms that the SM failed to resolve, the CM should be considered when severe OSA patients are going to abandon therapy. The results indicate the need for a more comprehensive study that is underway by this author at this time. Reduced pressures also need validating. Both resolution of sleep pathology and verification of compliance will validate the results of this survey. The TAP-PAP Custom Mask has an important role in

treating Sleep Disordered Breathing (SDB) and is a critical option to address the CPAP compliance issue in the treatment of SDB and OSA.

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