**B. Clinical Sleep Science and Practice**

**Introduction**: Obstructive sleep apnea (OSA) is a common condition that is widely underdiagnosed. In adults ranging from 30 to 70 years of age, it is estimated that the prevalence of OSA is 26 percent. Many patients are undiagnosed, and access to evaluation is limited due to geographic concerns and the paucity of sleep specialists. Telemedicine visits may allow for greater access to this care. Patient-centered care and satisfaction surveys are an important way to better assess patient needs.

**Methods**: Subjects ranging from 30–70 years of age, with a variety of sleep concerns, were recruited from the University of Rochester sleep center as part of an inter-rater reliability study. Subjects were evaluated in-person and online. During the telemedicine encounter, a separate, randomized provider performed an independent evaluation for OSA via tele-video conferencing with the subject. Following this encounter, subjects were given a link to an online survey to complete regarding their experience.

**Results**: Of 50 subjects that were recruited to date, 28 (56%) successfully completed the telemedicine encounter and online survey. Of these patients, 82% had never before had a telemedicine encounter with a provider. However, 75% had communicated with their provider through a secure email program at some point and 32% did this routinely. The majority, 82%, of subjects felt comfortable conducting a new patient appointment for their sleep medicine concerns via telemedicine, and 75% thought telemedicine would make it easier to make their appointments. Only 7% of subjects surveyed would not be interested in having online appointments with their sleep medicine provider, and 64% would be interested if it were the same cost or even a little bit more than their current co-pay.

**Conclusion**: These results suggest that patients are comfortable with telemedicine appointments for evaluation of OSA, and find it convenient to make these appointments. Telemedicine may improve access for evaluation of OSA, without reducing patient satisfaction, especially if these appointments are financially comparable to an in-person visit.

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**1068 UTILIZING LEAN METHODOLOGY TO IMPROVE THE SLEEP STUDY RESULTS TURNAROUND PROCESS**

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**Introduction**: Lean methodology has been used to review processes and eliminate duplicate and non-value added work. Our goal was to use lean methodology to examine the administrative processes within the sleep program to improve information flow and right size administrative staffing of the program. The process analyzed included the segment of work that occurred from the time the sleep report was interpreted by the sleep physician to the time it was released to the referring physician.

**Methods**: A team of stakeholders was assembled including administrative staff, the business director, the business manager and a quality outcomes manager. Lean methodology was used as the problem-solving method. A value stream map was constructed and process step time studies were completed. Variations and non-value added steps in the process were documented.

**Results**: Time studies revealed a lead-time of 36.5 minutes and processing time of 16.5 minutes per study resulting in 32.8 hours per week to complete this segment of the sleep study process. The value stream map was used to identify the following steps that could be reduced or eliminated: printing, manual documentation, standardizing physician styles in report processing; additionally we reassigned tasks to the most appropriate staff. Overall, lead-time and processing time were reduced by 17 and 5.25 minutes per sleep study, respectively, resulting in 13.7 hours of time saved per week.

**Conclusion**: We reduced lead and processing time by 42% and found that Lean Methodology was critical to allowing the team to break down the process in order to see areas of duplication or non-value added time. This revealed opportunities to standardize the process and eliminate the non-value added steps reducing the overall FTE needed to complete the administrative process of the sleep reports.

**Support (If Any)**:

**1069 INCREASING PATIENT ACCESS: IN-LABORATORY PORTABLE MONITORING PROGRAM FEASIBILITY, DIAGNOSTIC AND TREATMENT OUTCOMES**

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**Introduction**: Obstructive Sleep Apnea (OSA) increases morbidity, mortality, is underdiagnosed and undertreated. Polysomnography (PSG) is increasingly denied by insurers pushing portable monitoring (PM) at lower costs. Home testing relies on proper equipment placement and comes with the financial responsibility of taking equipment home. We offer technician-assisted in-laboratory PM. We evaluated PM reliability and outcomes among patients undergoing home PM (PM in-home) compared to in-laboratory (PM in-lab).

**Methods**: Outpatients ≥18 years-old screened by PM (ResMed ApneaLink Air) for OSA were included in a non-randomized observational study. Device failure (<4-hours recording, oximetry, flow or effort signals), apnea-hypopnea index (AHI), oxygen time <88% (SpO2% ≤88%) were compared between groups. Patient characteristics and follow-up were analyzed.

**Results**: 76 participants were included (average age 47.4 ± 12.5 years, 35 females). The majority of studies were conducted at home (55 PM in-home; 21 PM in-lab). Approximately half of the sample was white (51.4%). Average BMI was in the obese range (BMI=37.4 ± 8.9 Kg/m2) and AHI was moderate to severe (AHI=25 ± 21 events/hour). There was no difference in age, sex or race/ethnicity between groups. Medicaid insurance was more common in the PM in-lab group but the difference was not statistically significant (PM in-home=19% vs. PM in-lab 9.1%, p=NS). PM in-lab group had higher BMI (35.8 ± 8.9 vs. 41.4 ± 7.7 Kg/m2, p=0.01) and were more likely to have diabetes (11.8% vs. 52%, p<0.001). There were 13 device failures (17.1%). The PM in-home group had more failures (21.8% vs 4.8%, p=0.09). There was no difference between groups in AHI or SpO2% ≤88%. Three patients in the PM in-home and none in the PM in-lab needed follow-up PSG for negative results, all were diagnosed with OSA. Automatic continuous positive airway pressure (aCPAP) was utilized in 72.6% of patients with available data (n=62).

**Conclusion**: In-laboratory PM is feasible and may result in lower testing failure, increasing access to testing in patients whom in-home testing is not possible due to cost or preference. Use of in-laboratory PM could reduce barriers to SDB diagnosis and treatment, improve diagnostic reliability and increase laboratory capacity.

**Support (If Any)**: None.

**1070 OUTCOMES OF HOME SLEEP APNEA TESTING (HSAT) AND POLYSOMNOGRAPHY (PSG) IN VETERANS SEEN IN GROUP CLINICS VERSUS INDIVIDUAL VISITS**

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**Conclusion**: We reduced lead and processing time by 42% and found that Lean Methodology was critical to allowing the team to break down the process in order to see areas of duplication or non-value added time. This revealed opportunities to standardize the process and eliminate the non-value added steps reducing the overall FTE needed to complete the administrative process of the sleep reports.

**Support (If Any)**: None.