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Primary Research Interest: Internal Medicine

Description of Research: Obstructive sleep apnea (OSA) is a common condition that is characterized by frequent

episodes of upper airway collapse during sleep. The gold standard for diagnosis of OSA is by performing an overnight in lab sleep study (polysomnogram). The standard treatment of OSA is with a Continuous Positive Airway Pressure (CPAP) device. The CPAP pressure is determined by performing an overnight in lab sleep study wherein the technicians manually titrate the CPAP pressures to determine the optimal CPAP pressure that eliminates OSA. Split night polysomnograms are those sleep studies in which the first half of the night is used to diagnose OSA and the second half of the night is used to perform CPAP titration to determine optimal CPAP treatment pressure. This is a retrospective chart review. We shall review the split night positive airway pressure titration sleep study reports performed between 7/1/2014 to 12/31/2014. We shall grade them according to the AASM defined criteria as optimal, good, adequate and unacceptable. We shall also review the patient's chart to obtain patient's demographic information, sleep history, and medical history. We shall describe the patient demographic information (age, sex, body mass index, Epworth sleepiness scale score, medical history) associated with each of the following grades and

describe the differences if any.

Relevance to VA: There is a paucity of literature on the yield of the titration pressures obtained during split

night polysomnograms as per the AASM grading guidelines. This study would be helpful in determining the correct yield of the titration pressures that are obtained. This is important given that these studies are very expensive and labor intensive. A large number of veterans have obstructive sleep apnea. We perform about 500-600 split night CPAP titration sleep studies polysomnograms) at the VA. This study helps us to determine the yield of these split night CPAP titration sleep studies to determine the optimal CPAP pressure for treating our veterans. If the yield of these split night titration studies is found to be low then it may have clinical implications such as considering alternate testing (such as home sleep apnea test)

and treatment options (treatment with an autoadjusting CPAP device).