# OBSTRUCTIVE SLEEP APNEA SCREENING IN HEART FAILURE: QUALITY ASSESSMENT OF AN ACADEMIC INTERNAL MEDICINE CLINIC

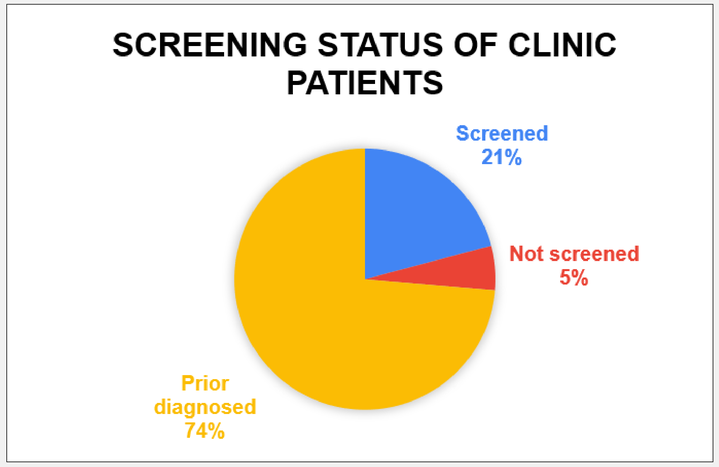
**Phoenix Xu MD, Amanda Meredith MD, Kajol Shah MD, Willy Roque MD, Sung Choi MD, Daniel Matassa MD**
**Internal Medicine Residency Program, Rutgers New Jersey Medical School**

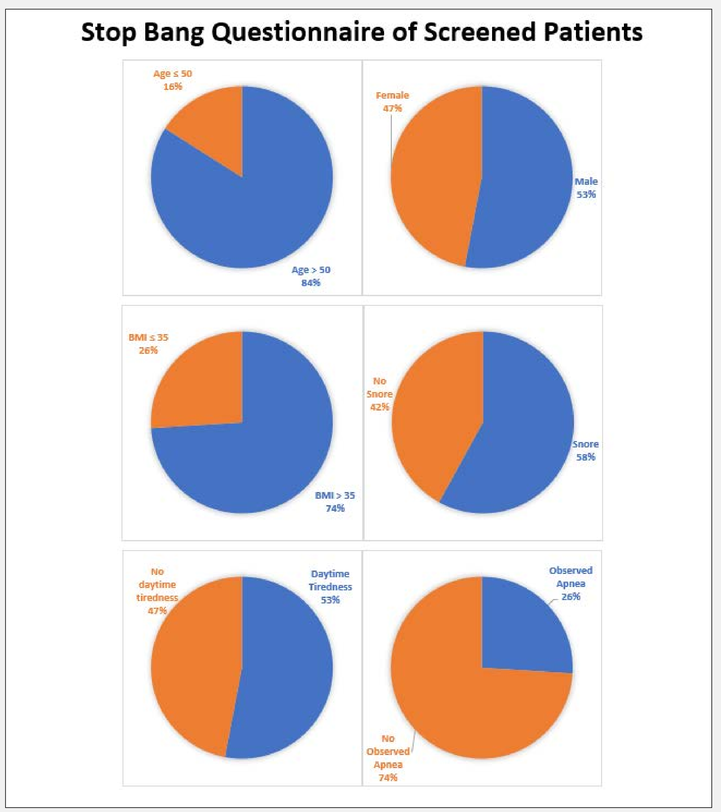
**PURPOSE:**

Heart failure (HF) affects approximately 6 million adults in the United States. Among those, 45-76% have comorbid obstructive sleep apnea (OSA)[1]. OSA leads to intermittent hypoxia and hypertension, resulting in an increased incidence of myocardial ischemia and accelerating the progression of HF[2].

OSA is believed to be underdiagnosed in 85% of the patients[3]. There is currently no guideline for screening for comorbid OSA in HF patients. Because of the potential adverse effects of untreated OSA, it is crucial to use a screening tool to identify HF patients who may have comorbid OSA early on. We chose STOP BANG Questionnaire to evaluate the likelihood of OSA based on symptoms, blood pressure, BMI, neck circumference, age and gender.

Our Internal Medicine Resident Clinic provides care to a medically underserved population with above national average illiteracy rate (52%), poverty rate (27.4%), and uninsured rate (19.1%)[4]. Medical conditions are often diagnosed at later stages, poorly controlled and often progress to end stage disease. This progression is costly in terms of quality of life, financial burden, and mortality. Identifying heart failure patients with OSA is a critical step in alleviating some of the burden.




**METHOD:**
We generated a random list of 91 adult patients who were seen in the Internal Medicine Resident Clinic in 2020 who had diagnosis of systolic heart failure or diastolic heart failure. No exclusion criteria were used. Data was manually extracted from each of the 91 patients' charts with respect to age, gender, ethnicity, neck circumference, medication regimen, answers to the STOP BANG questionnaire if they were asked, HF classification, and history of OSA screening and referral.

**RESULTS:**
Among 91 patients, 19 (21%) patients were screened for OSA, 67 (74%) patients were not screened, and 5 patients were previously diagnosed with OSA. Among those screened for OSA, all (100%) patients had high risk of OSA based on STOP BANG questionnaire. Among eight patients referred to sleep study, four patients were later diagnosed with OSA and 4 patients did not proceed with sleep study.

**CONCLUSION:**
No studies yet have been done to evaluate the screening rate of comorbid OSA in HF patients in primary care setting. Studies done on evaluating screening rate of OSA in HTN and epileptic patients in primary care academic clinics show a screening rate between 1-3.3%[5,6]. Our clinic has a higher rate of screening at 21%. With all patients screened having high risk of OSA, we are likely only screening for patients for whom we already have a high suspicion. However, there is a potential of underscreening symptomatic patients and delaying their diagnosis and treatment.

**References**
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