

Are Patients in the UMDCare Resident Clinic with Documented Asthma Being Treated with Appropriate Step-Up Medical Therapy?

Mansi Patel¹, MD, Anmol Mittal¹, MD, Alex Kaye¹, MD/MBA, Ameer Patrawalla², MD/MPH

¹ Department of Internal Medicine, Rutgers NJMS

² Division of Pulmonary & Critical Care Medicine, Rutgers NJMS

Introduction

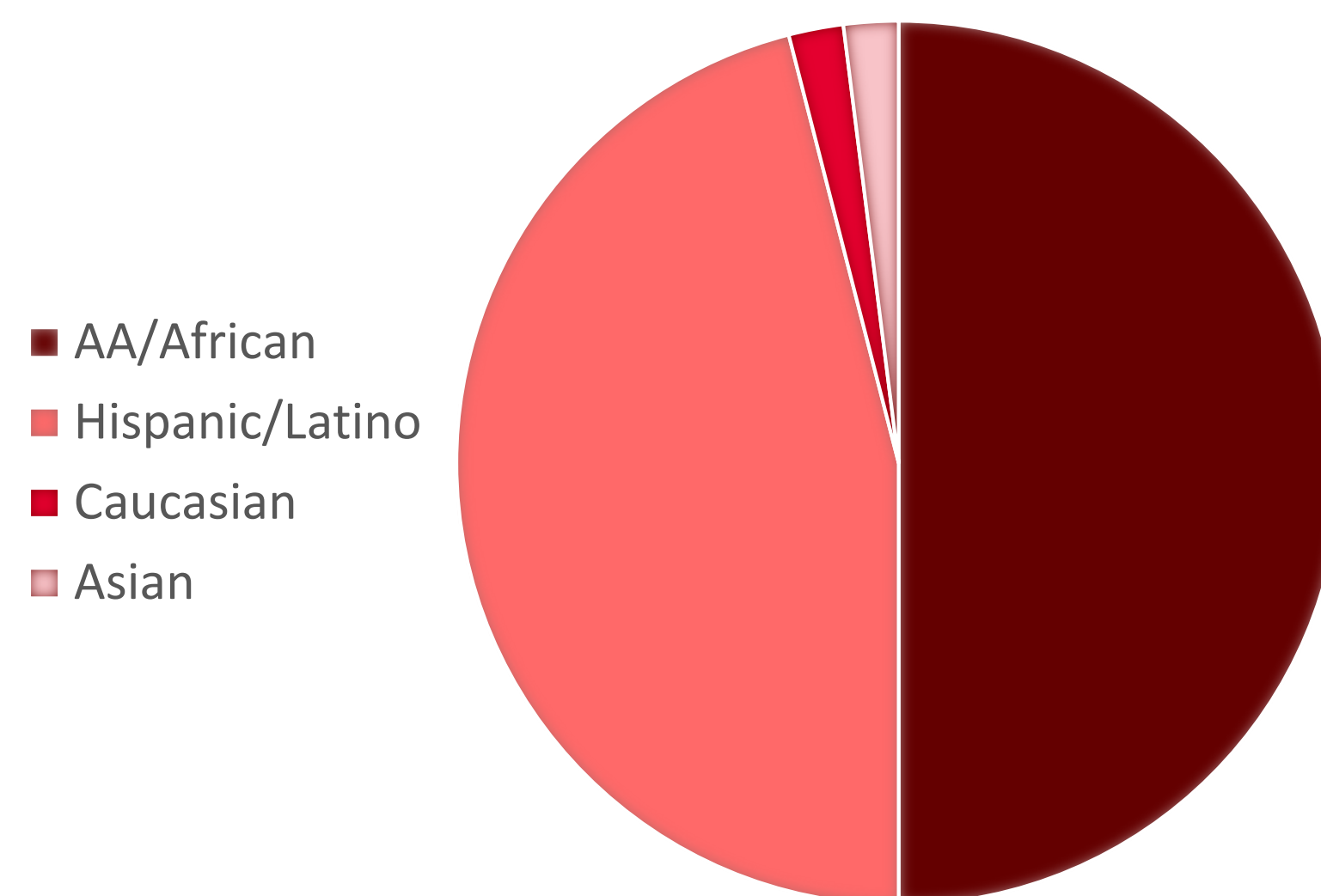
The UMDCare Internal Medicine resident clinic cares for a large patient population with a high prevalence of asthma. It was previously established that 70.5% of patients seen between October and December 2018 in the clinic had pulmonary function test (PFTs) indicating asthma. However, equally important to making the correct diagnosis of asthma is appropriate treatment based on asthma severity for optimal patient outcomes. We aim to determine if patients with asthma are being prescribed appropriate medical therapy according to their asthma severity.

Methods

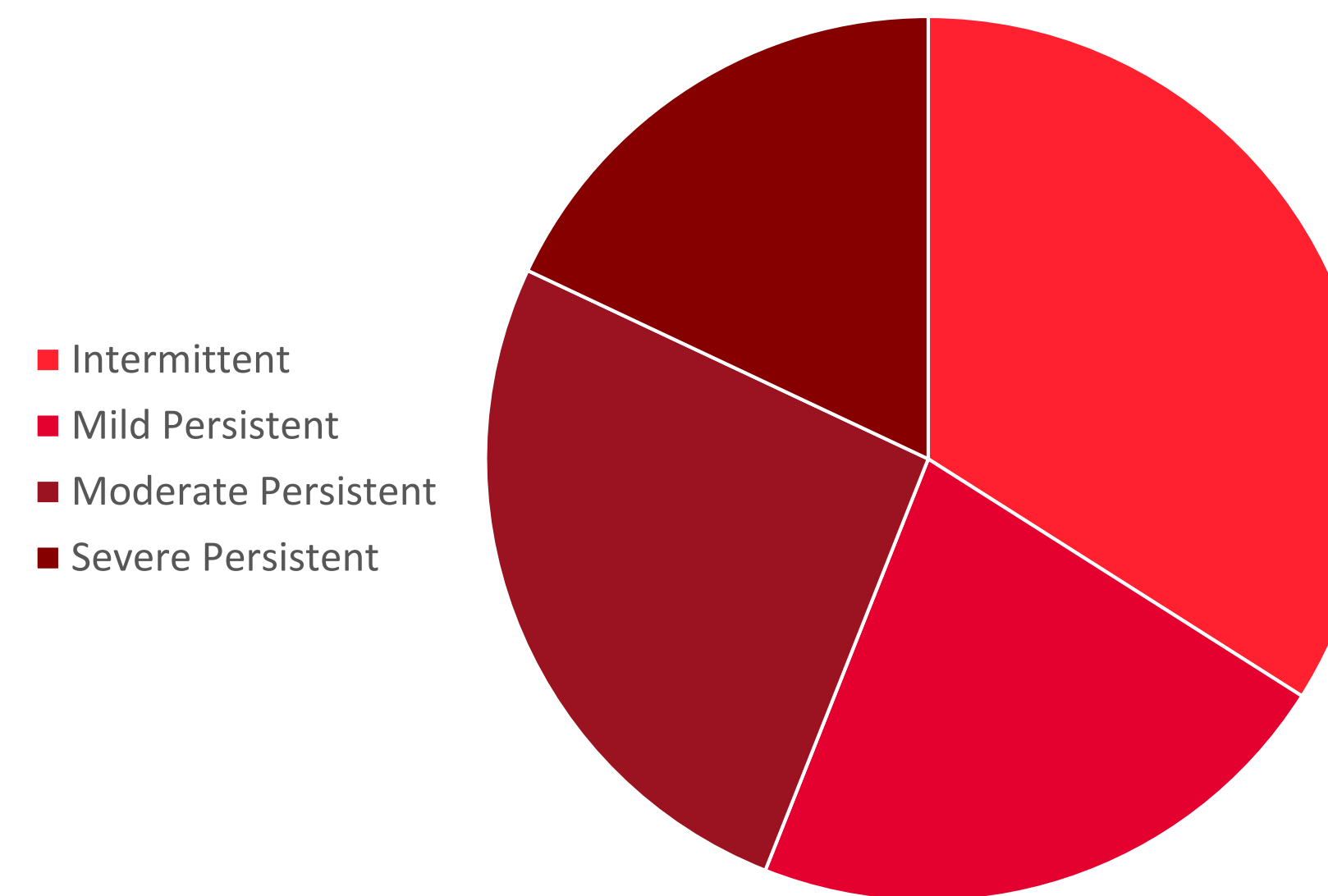
A retrospective chart review was performed on the UMDCare clinic from October through December 2018. 50 patients were selected using a random number generator. Inclusion criteria were patients 18 years and older diagnosed with asthma which was addressed during the visit. Patients were evaluated for asthma symptoms, smoking history, and current asthma treatment. A one-sample t-test was used to determine if fewer than 35% of patients were inappropriately treated with a significance level of 0.05. Secondary outcomes included incidence of smoking, nicotine replacement use, and involvement of Pulmonology subspecialists.

Results

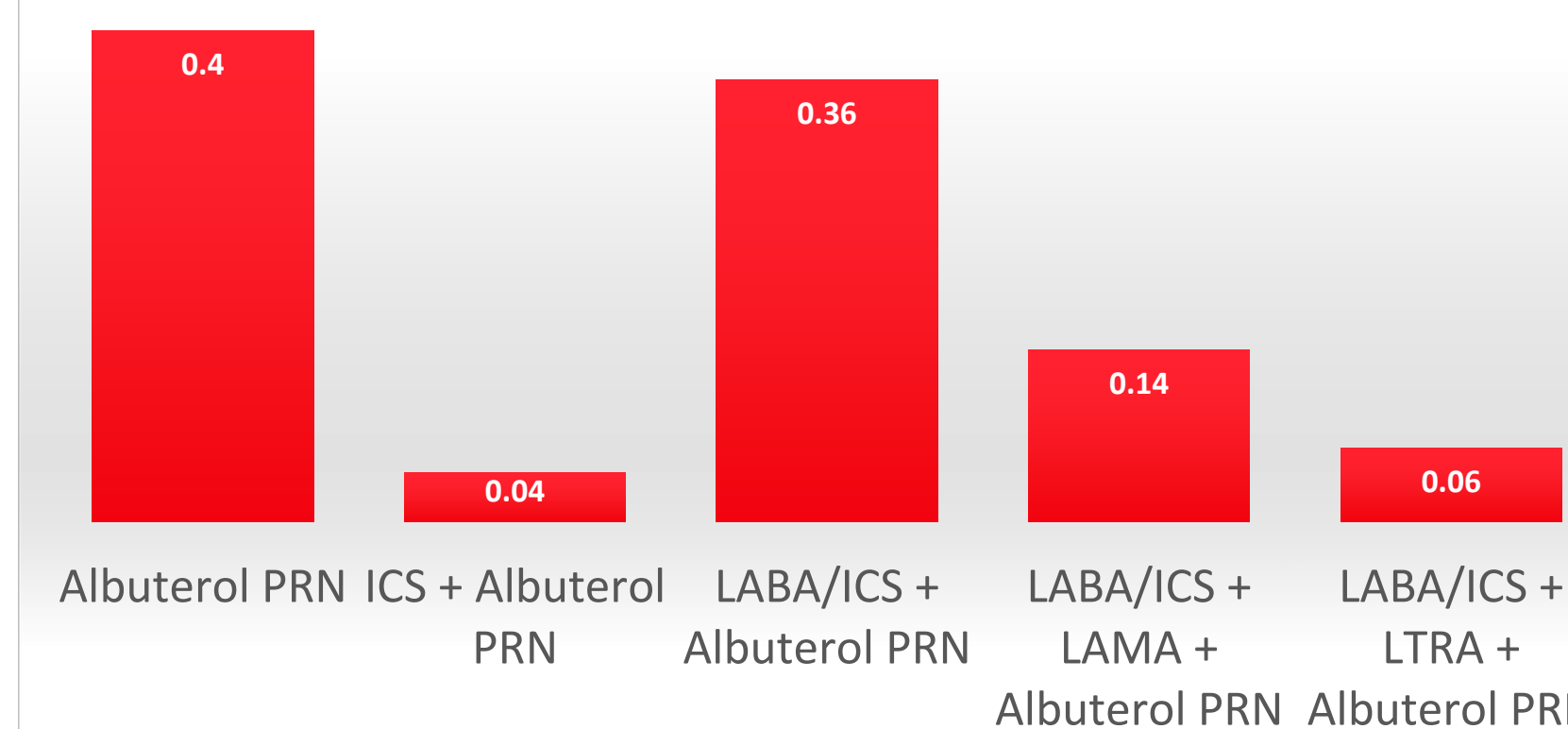
DEMOGRAPHICS



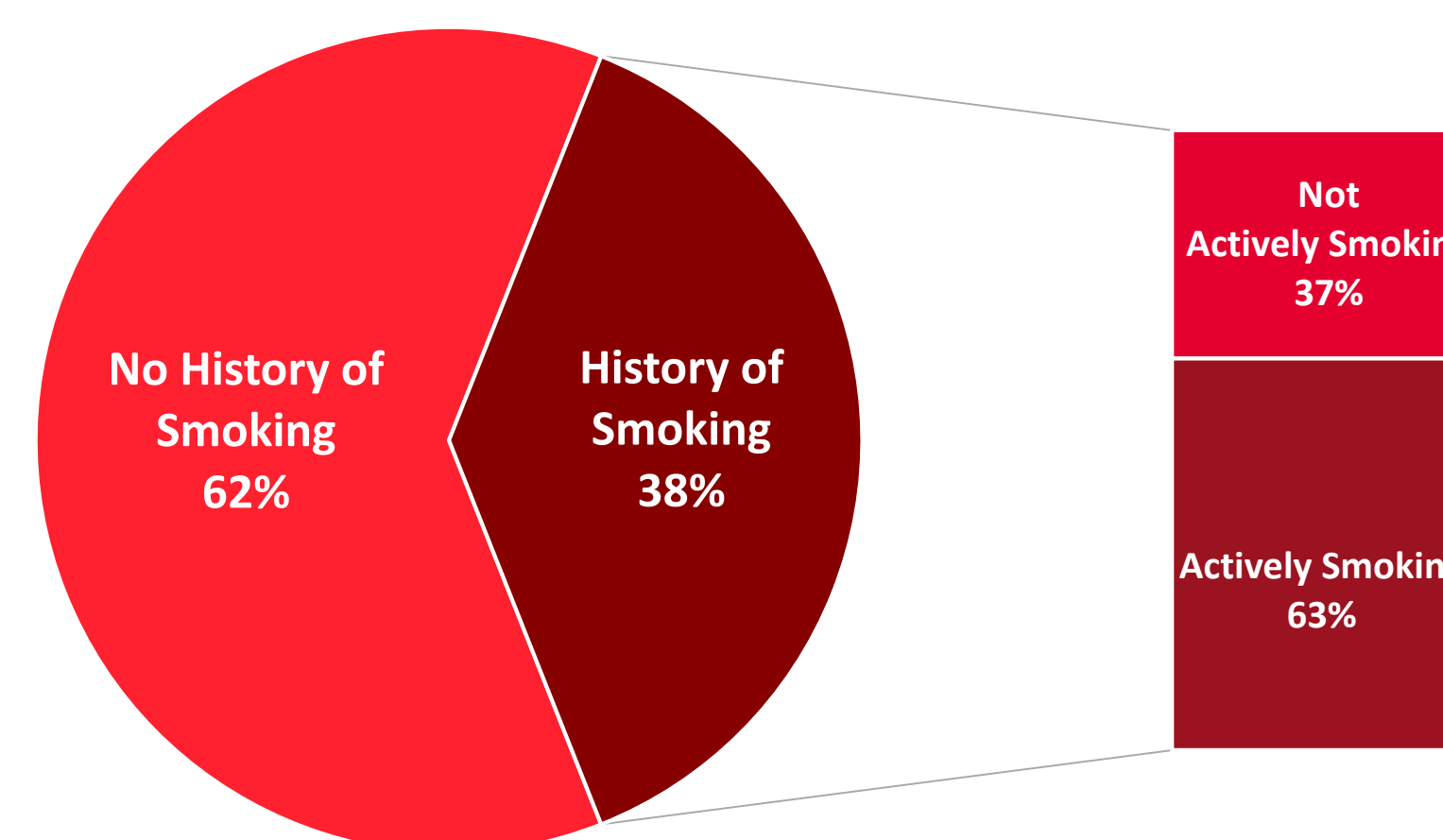
ASTHMA TYPE



DRUG REGIMENT



SMOKING STATUS



Asthma Symptom Status	
Nighttime Awakenings	
<2 times per month	46%
3-4 times per month	20%
> 1 night per week	24%
Every night	10%
Frequency of Rescue Inhaler Usage	
<2 days per week	32%
2<x<7 days per week	30%
7 days per week	20%
Multiple times daily	18%
Activity Limitation	
None	66%
Minor	20%
Some	8%
Extreme	6%
Followed By Pulmonology	
Yes	20%
No	80%

Of 77 asthmatic patients, 50 were chosen randomly. The average age was 55 years old with 74% females. 50% were African American, 46% were Hispanic or Latino, 2% were Caucasian, and 2% Asian or Pacific Islander. 20% of patients were found not to be treated in accordance with guidelines of which 20% were overtreated and 80% were undertreated. 38% of patients were smokers of which 63% were actively smoking and only 10% were using nicotine replacement therapy. 27% of patients also followed with a Pulmonologist. A one sample t-test demonstrated a p-value of 0.006, with a 95% confidence interval between 9% and 32%.

Conclusion

Conclusion: Of our sample, 80% of patients were treated according to the stepwise asthma treatment guidelines.

Clinical Implications: Most patients in the clinic are being treated according to guidelines, however there are patients that are being overtreated and those that are being undertreated. The resident clinic can improve adherence to asthma treatment guidelines through increased promotion of smoking cessation. Given new guidelines for asthma treatment were introduced in 2019 (GINA Guidelines), an intervention should be performed to update residents on newer guidelines and a repeat study should be done to assess for improved adherence to them.