

Assessing the referrals and completion of Pulmonary Function Tests (PFTs) in patients with obstructive airway disease, in the Ambulatory Care Center

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Background: With an objective to determine if we are following the standard practice of ordering Pulmonary Function Tests (PFTs) for people with an established diagnosis of obstructive airway disease, we reviewed 1 year of Ambulatory Care Center clinic data.

Methods: A randomly generated collection of 89 patients (25% of total samples collected) were selected using a random number generator. De-identified demographic data, diagnosis (asthma or COPD), and PFT order and completion data were collected from the pre-generated record. The data was processed, and t-test was utilized for continuous variables. Categorical data was analyzed using chi-square tests.

Results: Our patient population had an average age of 55 ± 14.8 , 58 had asthma, 31 COPD. 54 of the patients were women, and 19 were 66 years of age and older. PFTs were ordered for 80.6% of patients with a diagnosis of COPD, however, only 53 percent of the asthma patients had PFTs ordered ($p=0.011$). They were ordered for 63% of both men and women without a bias, but were ordered for those 65 years and under only 55.7 % of the time compared with those 66 years and older, who had an 89% order rate ($p=0.006$). The completion rate was 77% for those with asthma and only 60% for those with COPD ($p=0.048$). Subgroup analysis shows that 80% of asthmatic males completed their PFT, while only 63% of men with COPD completed PFT ($p=0.145$). Young asthmatics were statistically ($p=0.0465$) more likely to complete their PFTs than young men with COPD, 78% and 66%, respectively.

Conclusion: In conclusion, we undertest patients with asthma diagnosis compared to a COPD diagnosis, and we also under test the younger population. Patients with COPD particularly young male patients were less likely to complete their PFTs when ordered.