



# Long Term Oxygen Therapy: Demographics, prescription practices and compliance in Urban outpatient practice



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## Introduction :

Chronic supplemental oxygen therapy has several reported benefits including reduced mortality, increased exercise capacity and improved right ventricular function, especially in COPD patients. However, a recent study suggests limited benefit in COPD patients with mild to moderate hypoxemia (N Engl J Med 2016). Given its high cost(\$2.15 billion, 2009 GAO) and questions about efficacy we examined demographics, patient perceived indications and compliance in patients on long term oxygen therapy.

## Methods:

Ninety-four patients were interviewed in the outpatient setting (clinic or private office) over 17 months. All patients were greater than 18 years and on oxygen therapy for at least one month. Information regarding demographic and clinical characteristics were collected.

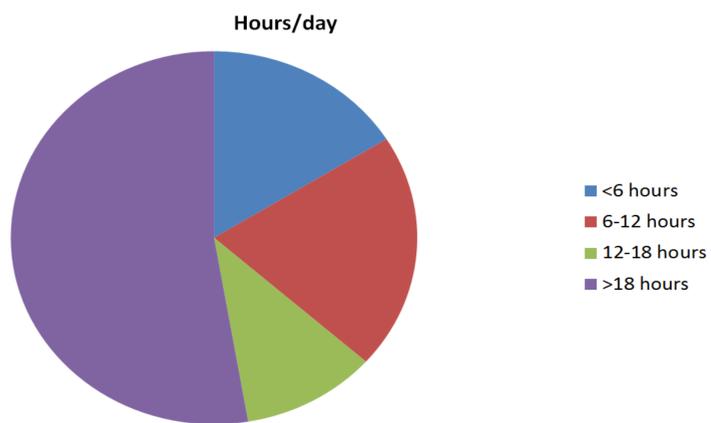
## Results:

The mean age was 71.8 years (male-42%, female-58%). Oxygen use was less than 12 hours in 36% of the patients. Most patients were prescribed oxygen for conditions other than COPD (61%). Thirty-six percent of the patients were non-smokers. Use of oxygen for more than 18 hours/day was 49(53%). Reasons for non-compliance as described by the patient included “the unit was heavy” (47%), “I don’t need it” (47%) and “negative self-image” (6%). Ninety-five percent had some training on oxygen use by a health professional. Physicians provided education in majority of cases (64%), although some patients reported no education at all (7%).

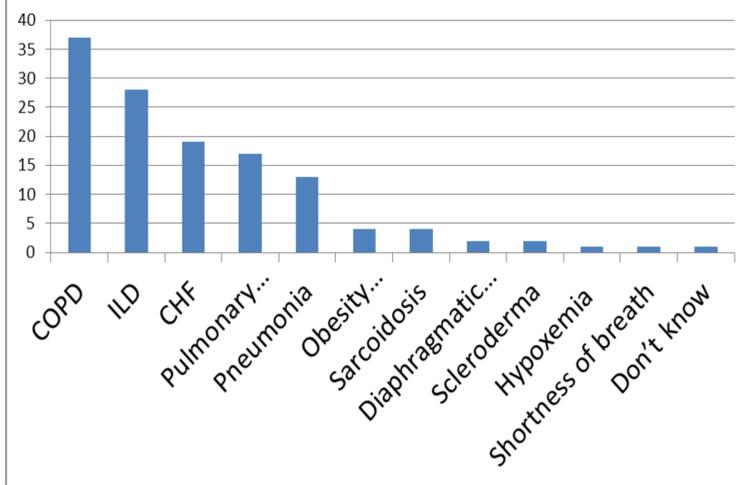
Characteristics	N (%)
Age (years) • Mean ± SD (range)	71.8 ± 13 (32 – 94)
Sex • Male	39 (42)
Office • Private Practice • Community Clinic	70 (75) 24 (25)
Education • Elementary • High School • College or higher	22(24) 48 (51) 23 (25)
Smoking Status • Never smoker • Former Smoker • Current smoker	34(36) 57(61) 2(2)

Length of Use • <1 year • 1-2 years • 2-5 years • >5years	26 (28) 13 (14) 32 (34) 21 (22)
Amount of oxygen used (maximum) • 2 • 3-4 • 5	65 (74) 32 (36) 2 (2)
Training on use of oxygen • Yes • No	89(95) 5(5)
Patients with portable tanks N=89 Patients reporting compliance • Full compliance • Sometimes noncompliant • Never use	57(64) 28(31) 4(5)
Patients reporting non-compliance (multiple answers allowed) • Heavy • Don't need it • Forget • Complicated • Self-image	15(47) 15(47) 6(19) 3(9) 2(6)

## Use of oxygen daily



## Self reported Diagnoses



## Conclusion:

- Oxygen was usually prescribed to elderly non-COPD patients.
- Smoking was rare in current oxygen users.
- Compliance was poor. Oxygen use was 12 hours daily in 64% and 6 hours daily in 16%.
- Most patients were educated on oxygen use by health professionals (physicians and nurses).
- The most common specific reason for non-compliance was equipment weight.
- Further research is needed to improve prescribing practices and compliance for oxygen therapy. Reducing equipment weight is an important goal.