

### 8.15 Severe COPD in a Young Population

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**Background:** COPD carries significant burden of morbidity and mortality; it is a leading causes of death in the UK and the second leading cause of hospital admissions. 1,2 We looked at a subset of younger patients with severe COPD. **Methods:** This was a retrospective observational study, recording data on patients under 60years old, with severe COPD, attending secondary care in a single respiratory centre over 12 months. Demographic details as well as key clinical findings were recorded. Univariate analysis was performed. **Results:** 38 patients, 50% female, median age 56years. Median FEV1 was 48%predicted. Only 13.6% of those patients with alpha1-antitripsin levels measured were deficient. Peripheral eosinophilia was present in only 9% of patients. 35% required long term oxygen therapy (LTOT) and 47% had evidence of hypercapnic respiratory failure. Patients with a low or normal BMI were more likely than patients with a high BMI to have hypercapnic respiratory failure (OR 1.3 95%CI 0.34-4.93 p-value 0.69) or to require LTOT (OR 1.63 95%CI 0.42-6.3 p-value 0.47). **Conclusion:** Our results reflect high burden of disease on young cohort of patients. Interestingly, low/normal BMI associated with need for LTOT and hypercapnic respiratory failure, this could warrant further research in bigger population groups. **Conflict of Interest:** The authors declare that they have no conflict of interest.