## **Is Spirometry-Defined Small Airways Obstruction Associated With Increased Mortality?**



## STUDY DESIGN

- Analysis of UK Biobank database (n=252,877 adults, aged 40-69 years)
- Small airways obstruction (SAO) defined as FEV<sub>3</sub>/FVC<sub>6</sub> < lower limit of normal</li>
- SAO considered isolated if FEV<sub>1</sub>/FEV<sub>6</sub> ≥ lower limit of normal
- Mortality risk adjusted for sex, BMI, smoking status and pack-years, ethnicity, Townsend deprivation index, and assessment center

## **-ARGE AIRWAYS** trachea 2 mm) bronchioles SMALL AIRWAYS terminal 2 mm) bronchioles ducts / sacs

## RESULTS

- 59,744 patients with SAO
  24,004 with isolated SAO
- 5,009 deaths over a median of 12.8 years follow-up
- SAO increased mortality due to
  - o all causes (HR, 1.31; 95% CI, 1.26-1.36)
  - o neoplasms (HR, 1.23; 95% CI, 1.17-1.29)
  - o cardiovascular disease (HR, 1.39; 95% CI, 1.29-1.51)
  - o respiratory disease (HR, 2.20; 95% CI, 1.92-2.51)
- Isolated SAO increased all-cause mortality risk (HR, 1.14; 95% CI, 1.07-1.20)

This study found that individuals with SAO have an increased risk of all-cause and disease-specific mortality. Further studies are needed to determine whether SAO causes mortality or is a marker of underlying disease.