



PIONEER

Health Data Research Hub

Virtual Wards For Exacerbations Of Chronic Obstructive Pulmonary Disease

Data range for infographic: 01.01.2019-31.12.2023

Other extended time periods are available on request

A granular dataset of 7k patients on a Respiratory Virtual Ward for exacerbations of Chronic Obstructive Pulmonary Disease, including demography, serial physiology, DECAF scores, diagnostic codes, presenting symptoms, imaging, prescriptions, and outcomes.

Demographic

The dataset includes:

- Adults **26%** (ages <=64)
- Older adults **73%** (ages 65+)

Based on the index of multiple deprivation map, **56%** of the population are from most deprived areas and **4%** of patients are from least deprived areas.

3% 1% 1% 89% 1% 6%



Asian



Black
African
Caribbean



Mixed



White



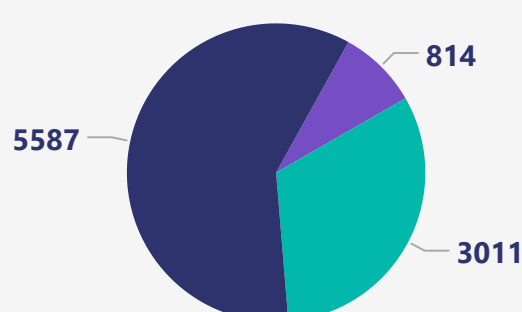
Other



Not
Stated

Chronic Obstructive Pulmonary Disease (COPD) ICD10 Diagnosed spells

● Bronchitis ● Emphysema ● Other COPD



Comorbidities

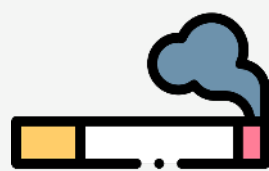
Top 5 SNOMED diagnoses are:

- Chronic obstructive lung disease **5085** spells
- Shortness of breath **3137** spells
- Dyspnea **3078** spells
- Chronic obstructive pulmonary disease **2298** spells
- Suspected COVID19 **1541** spells

Other diagnoses are available

2335

Spells



Current smokers

2901

Spells



Non-smoker

Smoking Status

- 75%** of spells with a smoking status
- 1415** spells who were ex smokers

Other smoking status are available



Community Healthcare

1416 respiratory virtual ward admission recorded from Birmingham and Solihull community healthcare with average length of stay 14 days.

Inpatient care

- 6,973 Hospitalised spells;** containing **2,158** unique patients who attended the respiratory virtual ward or met the control group criteria
- 40K** days worth of hospital data with an average in-hospital length of stay of 5 days
- In-hospital mortality rate of 2% with 96% of patients surviving 30 days after discharge
- The average National Early Warning Score is 5 with a median score of 4

DECAF Score

Predicts in-hospital mortality in acute COPD exacerbation.

Number of spells

1085



0-1

633



2

415



3-6

DECAF score

Readmissions

Percentage of patients readmitted to hospital within 30 days:

- 35%** readmitted to University hospitals Birmingham
- 5%** readmitted to University Hospital Birmingham from virtual respiratory admission

