

OMOP CDM Dataset: Hospitalised Asthma Exacerbation Cohort

Data range for infographic: 01.2023 - 12.2023 Other extended time periods are available on request

A OMOP CDM dataset comprising 11,834 hospital admissions from 6,502 patients with asthma exacerbation, including detailed demographics, clinical measurements, medication records, and outcomes to support interoperable research and advance asthma care.

Demographic

The dataset includes:

- Young adults **14.3%** (ages 18-25)
- Adults **81.3%** (ages 26-64)
- Older adults **4.4%** (ages 65+)

There are **67%** female and **33%** male patients.

19% 4% 2% 62% 2% 11%

Asian

Black Mixed White Other

Not

Stated

Clinical and Environmental Information

Observations:

• Over **90,000** observation records capturing key demographic details and patient-reported information

Measurements:

- ~74,000 measurement entries, including clinical data such as blood test results and pulmonary function test (e.g., peak expiratory flow)
- Integrated environmental metrics encompassing weather conditions and air quality indicators like PM2.5 particulate concentrations

Prescriptions:

• Detailed records of **2,200** prescription, specifying medication types along with administration modes

Prescriptions

79.5% 19.8% 0.7% Salbutamol **Terbutaline** Ipratropium **Bromide Turbohaler**

Site Moves

Transferred from A&E:

52%

Transferred onwards from AMU:

18%

Transferred to ITU:

7%

Inpatient care

- 11,834 Hospitalisation Spells: covering 6,502 unique patients admitted with acute asthma exacerbations
 - **21,096 Total Inpatient Days:** reflecting an average length of stay of **1.75 days** per hospitalization
 - **30-Day A&E Readmission: 10.4%** of discharged patients were readmitted to A&E within 30 days
 - **In-Hospital Mortality:** observed in **0.7%** of admissions