



PIONEER

Health Data Research Hub

A HDRUK dataset of the risk and Severity of Hospitalised Asthma Exacerbations.

Data range for infographic: 01.01.2018-31.12.2024

Other extended time periods are available on request

Granular dataset of 48,042 asthma exacerbation admissions (2018-2024) with demographics, vital signs, comorbidities, laboratory results, smoking history, medicines, lung function, imaging and outcomes including intensive care, mortality and readmissions.

Demographic

The dataset includes:

- Young adults **7%** (ages 16-24)
- Adults **48%** (ages 25-64)
- Older adults **45%** (ages 65+)

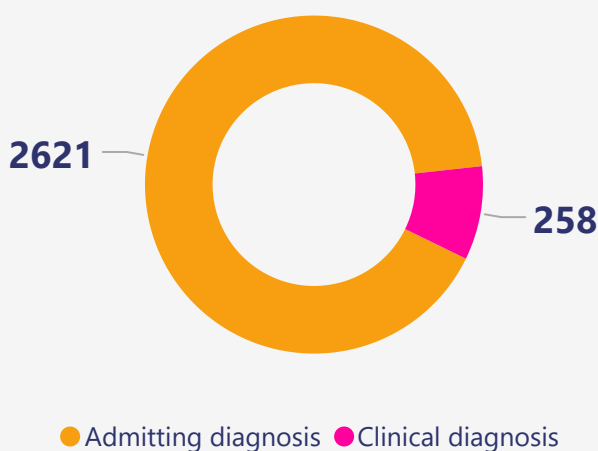
Based on the index of multiple deprivation map, **55%** of the population are from most deprived areas and **6%** of patients are from least deprived areas.

17% 3% 1% 68% 2% 8%



Asian Black African Caribbean Mixed White Other Not Stated

Asthma Exacerbation Diagnosis Type



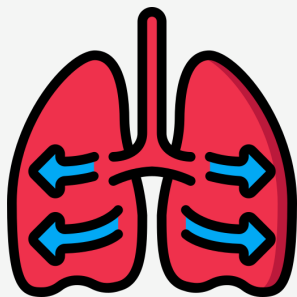
Comorbidities

Top Diagnoses:

- **42K** Essential primary hypertension
- **31K** Chronic obstructive pulmonary disease
- **18K** Non-insulin-dependent diabetes mellitus
- **17K** Other physical therapy
- **13K** Atrial fibrillation and atrial flutter

Other diagnosis are available

Lung Function Tests



8M Lung Function Test recorded. The average Forced Expiratory Volume in 1 second is **1.6** and **7.6%** Peak Flow recorded.

Other Lung Function tests are available.

Asthma Exacerbation Medications

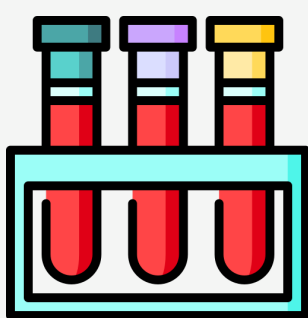


- **37K** Salbutamol Nebuliser
- **26K** Prednisolone ≥ 30 mg
- **14K** IV Hydrocortisone

Other Medication details are available.

Inpatient care

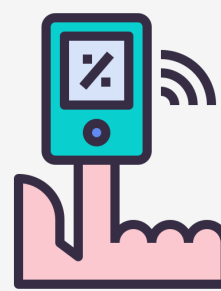
- **48,042** Hospitalised spells; containing **23,463** unique patients with asthma exacerbation
- **385K** days worth of hospital data with an average in-hospital length of stay of 8 days
- In-hospital mortality rate of 5% and 92% patients surviving 12 months after discharge
- **10K** readmitted back into hospital within 1 year from index asthma exacerbation



Laboratory Tests

- **447K** AKI Stage
- **331K** Finger stick glucose
- **184K** C-reactive protein
- **153K** Eosinophils

Other laboratory tests are available.



Observations

- **2.1M** Oxygen saturation
- **2.1M** Heart rate
- **1.9M** Respiratory rate
- **1.9M** Temperature

Other observation tests are available.

Other associated data available upon request

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