



PIONEER

Health Data Research Hub

NIHR | National Institute for Health and Care Research

Acute Care Patients Aged 65+ With Complex Multimorbidity: NIHR OPTIMAL Dataset

Data range for infographic: 01.01.2018-31.03.2019

Other extended time periods are available on request

Longitudinal data for 15,950 patients aged 65+ presenting acutely with multimorbidity. Includes demographics, comorbidities, serial physiology, frailty scores, blood results, medications, allergies, treatments, procedures and 12-month mortality outcomes.

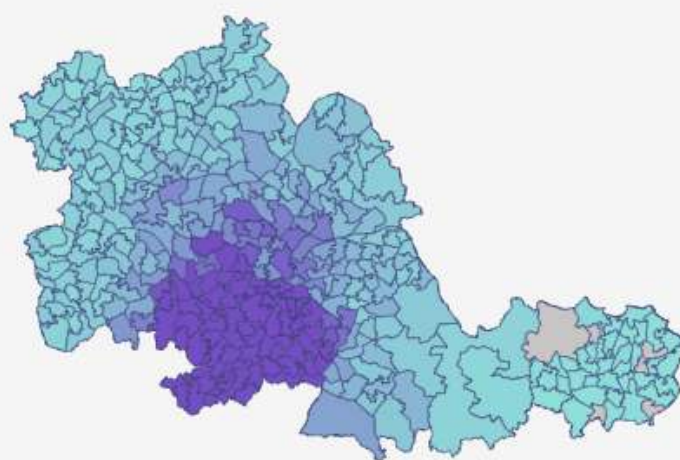
Demographic

The dataset includes patients aged 65+:

- Female **53%**
- Male **47%**

The majority of the patients are of White ethnic background accounting for **78%** of the population followed by **9%** Asian, **8%** Unknown, **3%** black/African/Caribbean, **1%** Other and **1%** Mixed.

West Midlands patient heatmap



Top A&E presenting complaints

2352



Chest pain

1312



Abdominal pain

2655



Asthenia

2813



Dyspnea

1309



Difficulty breathing

935



Fever

Multimorbidity

Top 5 ICD10 diagnosis in patient spell:

- 15K** Essential primary hypertension
- 6K** Type 2 diabetes mellitus
- 6K** Atrial fibrillation and flutter
- 4K** Chronic ischaemic heart disease
- 3K** Acute renal failure

Other diagnoses are available.

6%



Fit

17%



Mildly frail

32%



Moderately frail

45%



Severely frail

Frailty index

The average hospital electronic record frailty index (HERFI) is 0.42, moderately frail. The average Frailty Index score by QEHB (FI-QEHB) is 0.34, moderately frail.



Laboratory tests

1.5M serial laboratory tests recorded including complete blood counts, liver functions tests and more.

Other laboratory tests are available.

Inpatient care

- 27,676 Hospitalised spells;** containing **15,950** unique patients admitted to hospital
- 235K** days worth of hospital data with an average in-hospital length of stay of 8 days
- Hospital mortality rate of 6% with and a survival rate of 77% within 1 year of discharge
- The average national early warning score (NEWS2) is 2, indicating low clinical risk

Comorbidity mortality

The average number of ICD10 coded comorbidities in patient spells is 6.

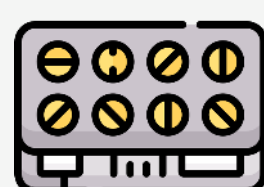
Mortality rate by comorbidity



Medication

Top 5 prescriptions to take out from hospital:

- 4.0K** Paracetamol prescriptions
- 2.4K** Lansoprazole prescriptions
- 2.4K** Senna prescriptions
- 2.0K** Atorvastatin prescriptions
- 1.8K** Docusate sodium prescriptions



Other medications are available

Other associated data available upon request

Contact us at:
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