PIONEER
Health Data Research Hub

NIHR | Birmingham Biomedical Research Centre

A NIHR Birmingham BRC Dataset Of Community Acquired Pneumonia (CAP) And Frailty

Data range for infographic: 01.09.2019-31.01.2022
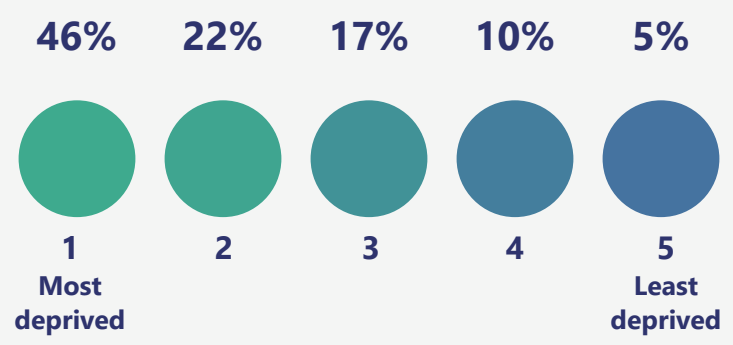**Other extended time periods are available on request**

A NIHR Birmingham BRC, highly granular dataset of 2,158 community acquired pneumonia spells curated by PIONEER, including demography, comorbidities, frailty, symptoms, physiology, acuity, investigations, treatments (drug, dose, route) and outcomes.
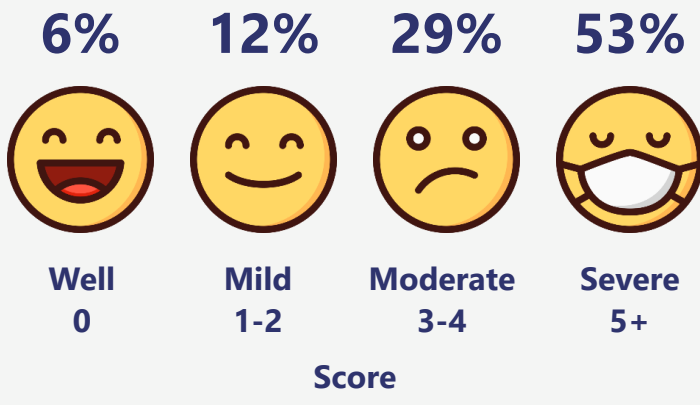
Demographic

The dataset includes:
- Young adults **2%** (ages <=24)
- Adults **24%** (ages 25-64)
- Older adults **74%** (ages 65+)

80% of patients are of White ethnic background. Followed by **10%** Asian, **2%** Black, African or Caribbean, **1%** Mixed and **7%** Other/Not stated.

46%	22%	17%	10%	5%
1 Most deprived	2	3	4	5 Least deprived

Comorbidities

Charlson Comorbidity Index

6%	12%	29%	53%
Well 0	Mild 1-2	Moderate 3-4	Severe 5+

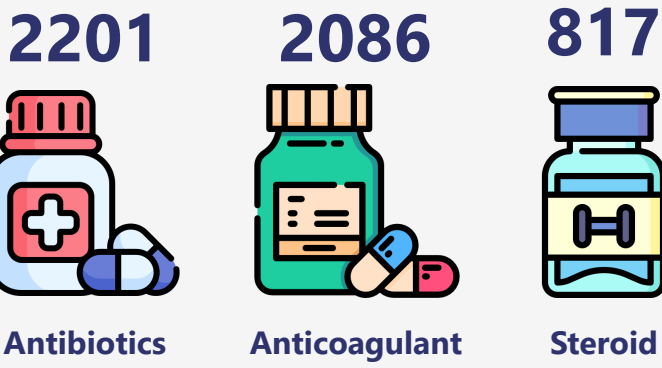**Score**

Top 5 inpatient ICD10 diagnoses are:
- Lobar pneumonia **1320** spells
- Essential hypertension **1261** spells
- Pneumonia, unspecified **808** spells
- Atrial fibrillation and flutter **630** spells
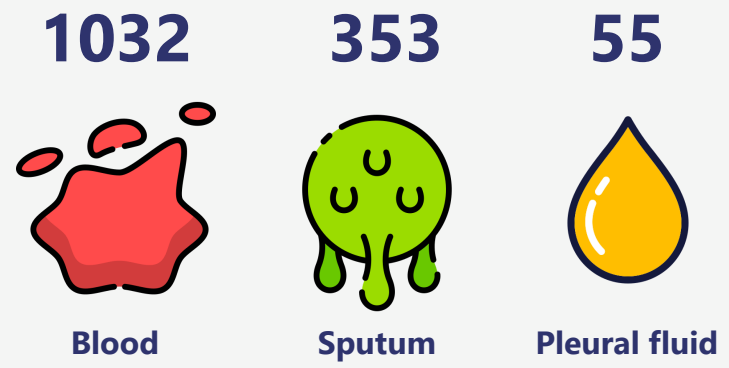- Chronic obstructive pulmonary disease **589** spells

Other comorbidities are available.

2201	2086	817
Antibiotics	Anticoagulant	Steroid

Medications

- **49%** of spells used Co-amoxiclav
- **76%** of spells used Enoxaparin
- **25%** of spells used Prednisolone

Other medications are available

1032	353	55
Blood	Sputum	Pleural fluid

Culture samples

- **13%** positive blood culture
- **36%** positive sputum culture
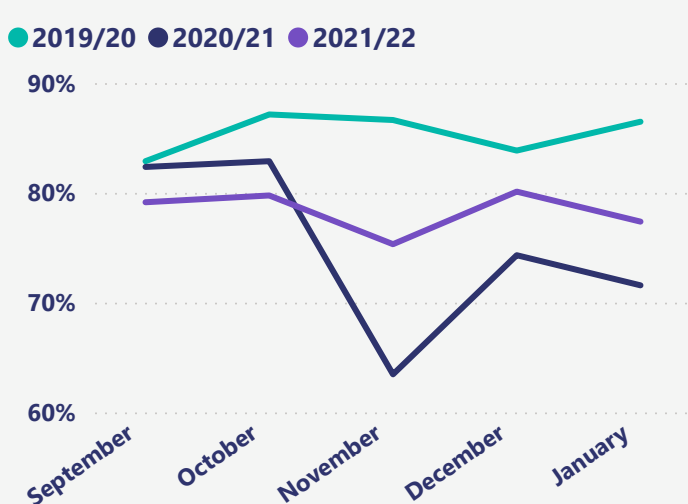- **7%** positive Pleural fluid culture

Other cultures are available

Inpatient care

- **2,293 Hospitalised spells;** containing **2,158** unique patients admitted for CAP
- **27K** days worth of hospital data with an average in-hospital length of stay of 11 days
- 30 day mortality rate of 19% with 60% of patients surviving 12 months after discharge
- The average Clinical Frailty Scale is 5 and the average National Early Warning Score is 5

Survival rate

30 days from discharge

● 2019/20 ● 2020/21 ● 2021/22

90%
80%
70%
60%

September | October | November | December | January

Readmissions

Percentage of patients readmitted within 30 days:
- **13%** readmitted to University hospitals Birmingham
- **3%** readmitted to University Hospital Birmingham related to Community Acquired Pneumonia