# NIHR Applied Research Collaborative Dataset Of Ambulance Chest Pain Conveyances

**Data range for infographic: 01.04.2023-01.04.2024**
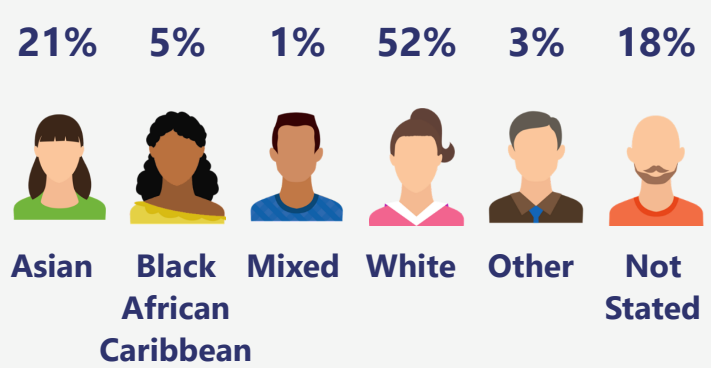Other extended time periods are available on request

NIHR ARC WM dataset of 49,785 chest pain patients, including demographic data, ambulance triage (WMAS conveyed/non-conveyed), assessments, serial physiology, hospital investigations, treatments and outcomes, linking ambulance and acute hospital data.
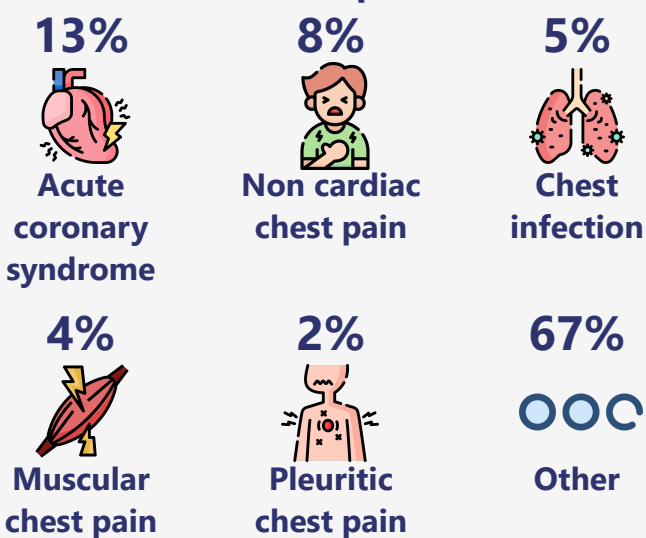
## Demographic

The dataset includes:
- Younger adults **8%** (ages 0-24)
- Adults **64%** (ages 25-64)
- Older adults **28%** (ages 65+)

Based on the index of multiple deprivation map, **55%** of the population are from most deprived areas and **8%** of patients are from least deprived areas.

| 21% | 5% | 1% | 52% | 3% | 18% |
|-----|-----|-----|-----|-----|-----|
| Asian | Black African Caribbean | Mixed | White | Other | Not Stated |

## West Midlands Ambulance Service (WMAS)

### WMAS impressions

| 13% | 8% | 5% |
|-----|-----|-----|
| Acute coronary syndrome | Non cardiac chest pain | Chest infection |

| 4% | 2% | 67% |
|-----|-----|-----|
| Muscular chest pain | Pleuritic chest pain | Other |

**21K** West Midlands Ambulance calls, **16K** WMAS crew callouts with **9K** conveyed to hospital.
Some vital signs done by WMAS includes:
- Heart rate
- Respiratory rate
- Pain score

Other vital signs completed on scene are available.
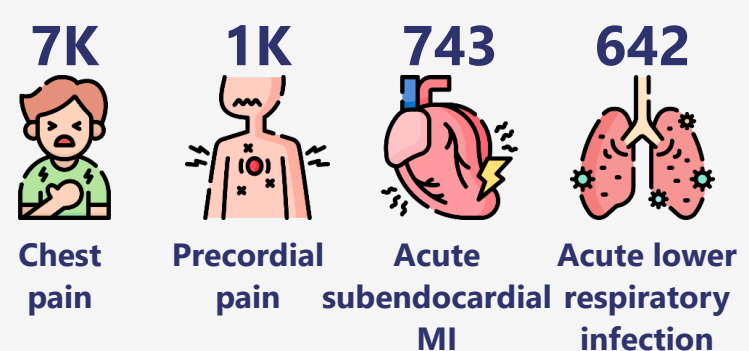
### Top 4 presenting complaint

| 29K | 1K | 1K | 765 |
|-----|-----|-----|-----|
| Chest pain | Abdominal pain | Dyspnea | Asthenia |

## Emergency department

**35K** emergency department admissions with arrival methods, presenting complaint, diagnoses and investigations.

Other A&E details are available.

### Top 4 primary diagnoses

| 7K | 1K | 743 | 642 |
|-----|-----|-----|-----|
| Chest pain | Precordial pain | Acute subendocardial MI | Acute lower respiratory infection |

## Inpatient

**30K** Inpatient episodes with admission types, admission method, wards, hospital site, diagnoses and discharge destinations.
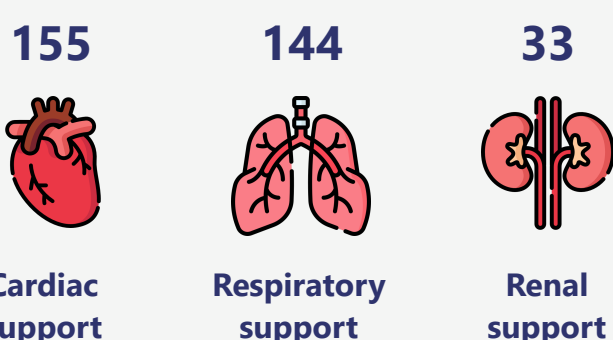
Other Inpatient details are available.

## Inpatient care

- **49,785 Hospitalised spells;** containing **37,745** unique patients admitted with chest pain
- **81K** days worth of hospital data with an average in-hospital length of stay of 1 day
- In-hospital mortality rate of 0.5% and 97% of patients surviving 12 months after discharge
- The median National Early Warning Score is 1 and the median Clinical Frailty Scale is 3

## Critical care

**211** spells admitted to critical care with **1,832** days worth of critical care data and an average of length of stay of **8** days.

| 155 | 144 | 33 |
|-----|-----|-----|
| Cardiac support | Respiratory support | Renal support |

Other critical care support are available.

## Laboratory tests

- **80K** Albumin
- **59K** White blood count
- **38K** Troponin I
- **36K** D-dimer
- **25K** Cholesterol

Other laboratory tests are available.