



# PIONEER

Health Data Research Hub

## Cardiac Disease Following Critical Illness And Intensive Care Admission

Data range for infographic: 28.12.2015-11.12.2023  
Other extended time periods are available on request

A highly granular dataset of 829 people with an acute myocardial syndrome while on intensive care, including serial physiology before, during and after the event, demography, co-morbidities, investigations including imaging and long-term outcomes.

### Demographic

The dataset includes:

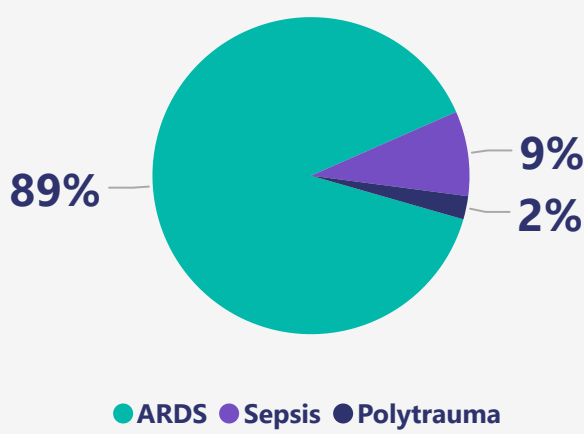
- Young adults **1.8%** (ages <=24)
- Adults **66.6%** (ages 25-66)
- Older adults **31.6%** (ages 67+)

Based on the index of multiple deprivation map, **52%** of the population are from most deprived areas and **8%** of patients are from least deprived areas.

21% 4% 1% 54% 3% 17%



### Patient cohort



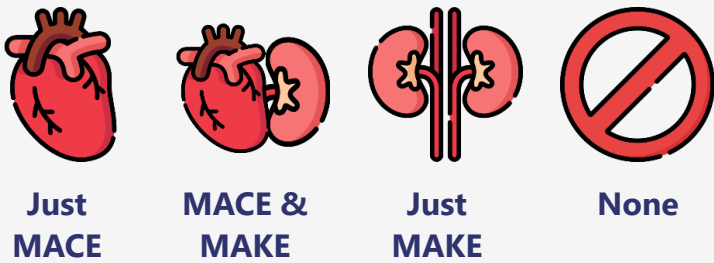
### Comorbidities

Percentage of hospital spells with comorbidities:

- Hypertension **38%**
- Hypercholesterolaemia **13%**
- Atrial fibrillation **5%**
- Cerebral vascular accident **3%**

Other comorbidities are available.

70% 13% 1% 16%

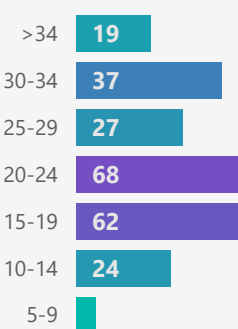


### Major adverse events

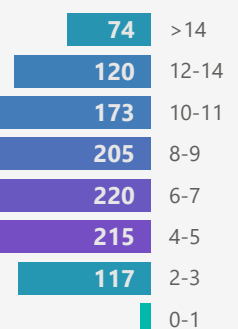
The median age group with a major adverse:

- Cardiac Event (MACE) is 57-61
- Kidney Event (MAKE) is 62-66

### APACHE II score



### SOFA score



### ICU mortality prediction

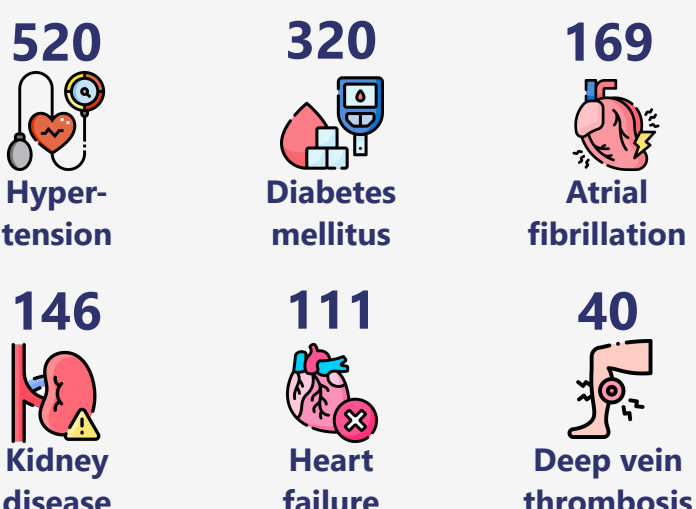
**10%** of hospital spells have an estimated intensive care unit mortality rate of **over 85%**.

### Inpatient care

- **832 Hospitalised spells;** containing **829** unique patients admitted to critical care
- **23K** days worth of hospital data with an average in-hospital length of stay of 28 days
- In-hospital mortality rate of 48% with 47% of patients surviving 12 months after discharge
- The average Clinical Frailty Scale is 3 and the average Injury Severity Score is 23

### Post critical care

Patients with chronic conditions



### Readmissions

Percentage of patients readmitted to hospital within:

- 3 months post critical care **16%**
- 6 month post critical care **20%**
- 12 months post critical care **23%**

