



PIONEER

Health Data Research Hub

Improving the diagnosis of Acute compartment syndrome using synthetic data

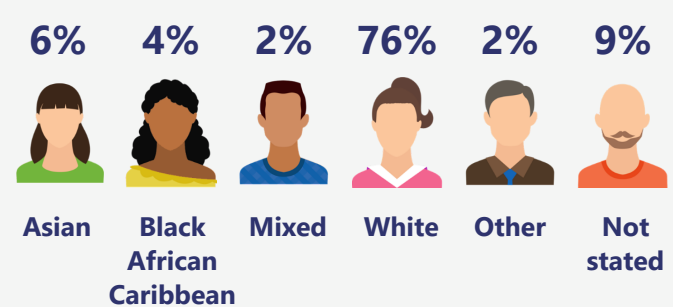
Data range for infographic: 30.06.2004-26.06.2022
Other extended time periods are available on request

Demography, physiology, injury status, muscle and blood biomarkers preserved synthetic data for Acute Compartment Syndrome patients, including intra-compartmental pressure and tissue oxygenation data alongside clinical observations and treatments.

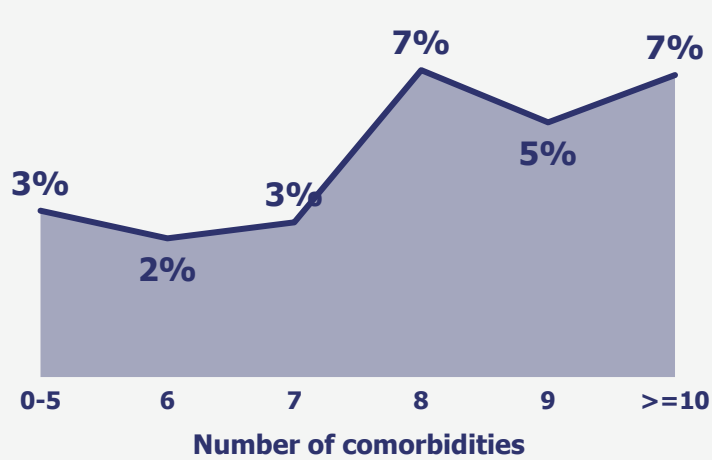
Demographic

The dataset includes:

- 27% female and 73% male patients
- minors 6% (ages under 20)
- adults 63% (ages 21-65)
- elderly 31% (ages 66+).



Based on the index of multiple deprivation; 41% of patients come from most deprived areas and 5% are from least deprived areas.



Mortality by comorbidity

Top 5 diagnosis in patient spells:

- 348 Traumatic ischaemia of muscle
- 335 Essential (primary) hypertension
- 231 Acute renal failure
- 201 Ischaemic infarction of muscle
- 179 Tendency to fall

7644

Blood pressure



Observations

Over 60K diastolic blood pressure and systolic blood pressure recorded.

Other vital signs are available.

8739

Sample analysis



Laboratory test

Over 1K creatine kinase tests recorded with an average of 627 U/L.

Other assessments are available.

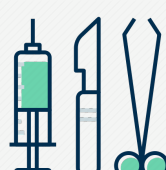
Inpatient care

- 990 Hospitalised spells; containing 559 acute compartment syndrome patients
- 32,257 days worth of inpatient hospital stays with an average stay of 34 days per spell
- 1,180 Surgery operations synthetically generated including 382 fasciotomy procedures
- Less than 6% mortality rate for patients with acute compartment syndrome

Medical procedures

Top 5 medical procedures in patient spells:

- 715 Left sided operation
- 692 Right sided operation
- 659 Debridement of skin
- 488 Dressing of skin using vacuum assisted closure device
- 377 Intravenous cannulation



Surgery theatre to recovery ward

