



# PIONEER

Health Data Research Hub

**NIHR** | Midlands Patient Safety Research Collaboration

## Age-Adjusted D-Dimers: Enhancing Diagnosis & Patient Safety in Thromboembolism

Data range for infographic: 01.01.2017-31.12.2021  
Other extended time periods are available on request

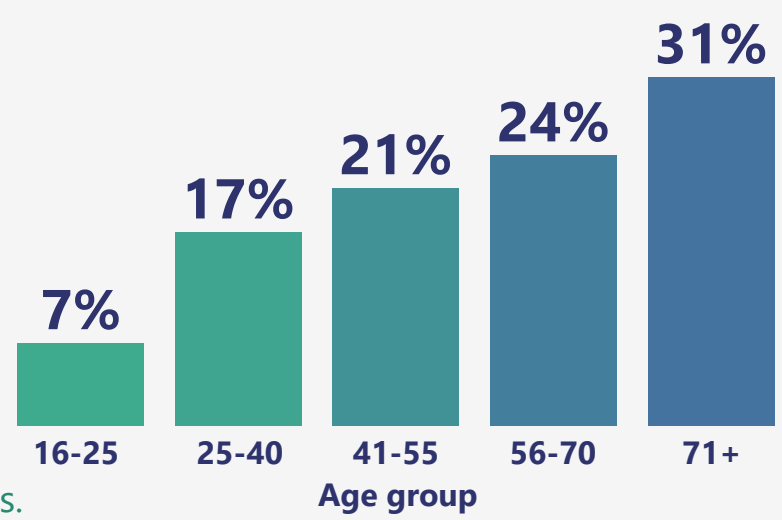
A study on patients who were admitted to University Hospitals Birmingham (UHB) with suspected diagnosis of a Pulmonary Embolism (PE) or Deep Vein Thrombosis (DVT); to determine whether a new scoring system was more accurate at diagnosing thromboembolic events in the lungs or limbs than using the standard Wells score.

### Demographic

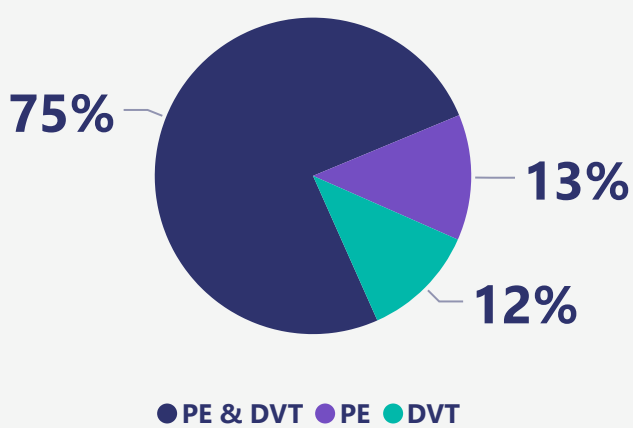
The dataset includes:

- 67% White ethnic background
- 16% Asian ethnic background
- 10% Unknown ethnic background
- 4% Black/African/Caribbean background
- 2% Other ethnic background
- 1% Mixed ethnic background.

50% of the population are from most deprived areas.



### Patients suspected of PE or DVT



### Diagnosis

Top 5 diagnoses in patient spells are:

- 19K Chest pain
- 14K Essential hypertension
- 13K Pulmonary embolism
- 11K Deep venous thrombosis
- 10K Diabetes Mellitus

Other diagnoses are available.

12M



Observations

2M



Laboratory tests

### Measurements

132K D-Dimer laboratory tests recorded with an average result of 853.6 ng/ml.

Other blood tests are available.

89K



Anti-coagulant

35K



Anti-platelet

22K



Aspirin

615



Hormonal Oestrogen

### Prescriptions

- Over 1.5M prescriptions recorded
- The most common DOAC is Apixaban with more than 16K prescriptions

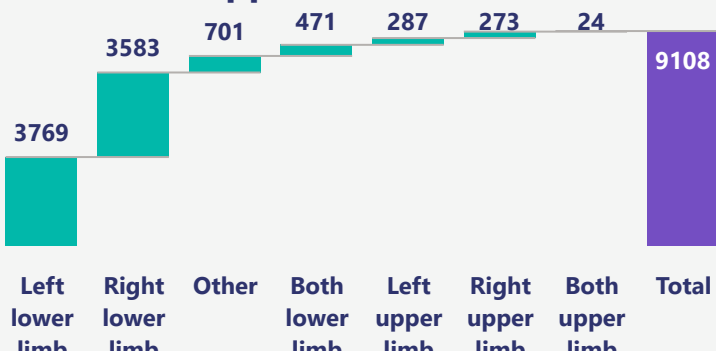
### Inpatient care

- 45,875 Hospitalised spells; containing 34,547 unique patients with suspected PE or DVT
- 315K days worth of hospital data with an average in-hospital length of stay of 6 days
- In-hospital mortality rate of 4% and 85% of patients surviving 12 months after discharge
- The median initial Wells score for PE is 4.5 and the median initial Wells score for DVT is 2

### Medical imaging

- 116K medical imaging recorded
- 8K CT pulmonary angiogram
- 255 Ventilation perfusion
- 9K Ultrasounds performed

#### Doppler Ultrasounds



### Discharge locations

- 40K Discharged home
- 1834 Patients died
- 1042 Transferred to other hospital
- 715 Discharged to care home



Other discharge locations are available