Objective To summarize the experience of bronchial artery embolization in the treatment of tuberculous massive hemoptysis in the elderly.

Methods Six patients with acute massive hemoptysis aged 67 ~ 92 who failed to stop bleeding with medical drugs had a history of hemoptysis for 3 ~ 6 days and a hemoptysis volume of 500 ~ 600 ml at the onset. Firstly, the bleeding bronchial endings were blocked with gelatin sponge. If the effect was not good, the branches of bronchial artery were blocked with spring coil.

Results The hemoptysis of 6 elderly patients stopped immediately after operation, and there was no recurrence after operation.

Conclusion The use of gelfoam and coil in bronchial artery occlusion is a effective treatment for tuberculous elderly patients with massive hemoptysis, with low recurrence rate and high safety.

Conflict of Interest NO

Acute coronary syndromes & interventional cardiology

Introduction It has been challenging for researchers to access granular electronic health record (EHR) data at scale. The NIHR Health Informatics Collaborative (HIC) enables the sharing of routine EHR data across NHS hospitals for research. One emerging prospect is to use big data to traverse the translational spectrum. As an early discovery phase study, we estimated the effect of invasive versus non-invasive management on the survival of patients with non-ST elevation myocardial infarction (NSTEMI) aged 80 years or older (SENIOR-NSTEMI Study). As a later implementation phase study, we determined the relationship between the full spectrum of troponin level and mortality in patients in whom troponin testing was performed for clinical purposes (TROP-RISK Study).

Methods Five NHS Trusts contributed data: Imperial, University College London, Oxford, King’s and Guy’s and St Thomas’. We used Microsoft SQL to develop a dataset of 257,948 consecutive patients who had a troponin measured between 2010 and 2017. We extracted phenotypically detailed data, including patient demographics, blood tests, procedural data, and survival status. For the SENIOR-NSTEMI Study,
eligible patients were 80 years or older who were diagnosed with NSTEMI. We estimated mortality hazard ratios comparing invasive with non-invasive management. For the TROP-RISK Study, we modelled the relation between peak troponin level and all-cause mortality using multivariable adjusted restricted cubic spline Cox regression analyses.

**Results**

For the SENIOR-NSTEMI Study, 1500 patients with NSTEMI were included who had a median age of 86 (interquartile range (IQR) 82–89) years of whom (845 [56%]) received non-invasive management. During a median follow-up of 3.0 (IQR 1.2–4.8) years, the adjusted cumulative five-year mortality was 36% in the invasive and 55% in the non-invasive group (hazard ratio 0.68, 95% confidence interval 0.55–0.84). For the TROP-RISK Study, during a median follow-up of 1198 days (IQR 514–1866 days), 55,850 (21.7%) deaths occurred. There was an unexpected inverted U-shaped relation between troponin level and mortality in acute coronary syndrome (ACS) patients (n=120,049) (Figure 1A). The paradoxical decline in mortality at very high troponin levels may be driven in part by the changing case mix as troponin levels increase; a higher proportion of patients with very high troponin levels received invasive management (Figure 1B).

**Conclusion**

Routinely collected EHR data can be aggregated across multiple sites to create highly granular datasets for research. The SENIOR-NSTEMI Study showed a survival advantage of invasive compared with non-invasive management of NSTEMI patients aged 80 years or older, who were underrepresented in previous trials. The inverted U-shaped relationship between troponin level and mortality in ACS patients in the TROP-RISK Study demonstrates that assembling sufficiently large datasets can cast light on patterns of disease that are impossible to adequately define in single centre studies.

**Conflict of Interest**

No conflict of interest