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
functional recovery. Resting backward compression wave energy was significantly greater in recovering than non-recovering territories ($-5240 \pm 3772$ vs. $-1873 \pm 1605$ W.m$^2$.s$^{-1}$, $p = 0.099$, figure 1), and had comparable diagnostic accuracy to CMR (area under the curve $0.812$ vs. $0.757$, $p = 0.649$, figure 2); a threshold of $-2500$ W.m$^2$.s$^{-1}$ had $86\%$ sensitivity and $76\%$ specificity at predicting recovery. Backward expansion wave energy did not predict recovery. FFR was numerically higher in recovering territories ($0.81 \pm 0.17$ vs. $0.71 \pm 0.16$, $p = 0.058$), whilst hyperaemic microvascular resistance did not differentiate recovering from non-recovering territories ($1.97 \pm 0.73$ vs. $2.29 \pm 1.00$, $p = 0.287$). The likelihood of functional recovery was similar in revascularised and non-revascularised territories ($15/29$ vs. $6/13$ respectively, $p = 0.739$). Low-dose dobutamine stress increased the energy of all waves, but did not improve the accuracy of cWIA in predicting recovery. In a regression model, resting backward compression wave energy and optimisation of medical therapy predicted functional recovery; fractional flow reserve and revascularisation with PCI did not.

Conclusions Backward compression wave energy has similar accuracy to late gadolinium enhanced CMR in the prediction of functional recovery. cWIA has the potential to revolutionise the management of ischaemic left ventricular dysfunction, in a manner analogous to the effect of fractional flow reserve on the management of stable angina.

Conflict of Interest None

Introduction The recent BASKETSMALL2 trial demonstrated safety and efficacy of drug coated balloon (DCB) angioplasty for de novo small vessel disease. Registry data have demonstrated that DCB angioplasty is safe; however, the majority of these studies are limited due to long recruitment time and small number of patients with DCB compared to drug eluting stents (DES). Our aim was to investigate if DCB-only strategy is safe to incorporate in routine clinical practice.

Methods We identified all patients treated for stable angina and de novo disease in our institution from January 2015 till November 2019. During that period an equivalent number of patients were treated with DCB-only or DES-only strategy on a yearly basis. The primary endpoint was all cause mortality. The secondary endpoints were cardiovascular mortality, acute coronary syndrome (ACS), ischaemic stroke, major bleeding and target lesion revascularisation (TLR). Data were obtained from the hospital episodes statistics from NHS digital. Clinical and angiographic data were collected from our prospectively collated database and supplemented from electronic records as required. All angiograms were reviewed to confirm accuracy of angiographic data and determine TLR.

Results A total of 1302 patients were identified. HES data were not obtained for 65 patients who had opted-out, therefore 1237 were included in the analysis; 544 were treated with DCB and 693 with DES. The average age for the DCB-group was $67.9 \pm 10.2$ years old (78\% male). The average age for the DES-group it was $67.9 \pm 10.2$ years old (79\% male). The average follow up was $1339 \pm 514$ days and $1354 \pm 527$ days for the DCB- and DES group respectively. Table 1 shows the