Abstract 145 Figure 1 Kaplan-Meier mortality curve by (A) hsCRP level and (B) hsCRP level and troponin positivity

successive model was better able to discriminate risk than its precursor ($p < 0.0001$); such that inclusion of troponin and hsCRP gave the most robust risk discrimination. Model 3 achieved an AUROC > 0.8 at 30 days, 1-year and 3-year mortality, surpassing the use of troponin on its own.

Conclusion These multi-centre, real-world data from a large cohort of patients with suspected ACS identify hsCRP as a clinically meaningful prognostic marker in addition to troponin levels and point to its potential utility in selecting patients for novel treatments targeting inflammation.

Conflict of Interest No conflicts of interest

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THE PROGNOSTIC IMPLICATION OF A POSITIVE TROPONIN ACROSS THE AGE SPECTRUM IN A QUARTER OF A MILLION PATIENTS WITH SUSPECTED ACUTE CORONARY SYNDROME (NIHR HEALTH INFORMATICS COLLABORATIVE TROP-RISK STUDY)

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Background In the past two decades, assays for troponin have undergone vast improvements, allowing fast detection of

troponin with increased precision. With improved sensitivity of current troponin assays, more patients end up with a positive troponin result. There is limited data to help inform the implications of a positive troponin test across the age spectrum, in clinical practice. The aim of this study was to investigate the overall prognostic impact of a positive troponin result on all-cause mortality in patients in whom troponin testing has been done for clinical purposes.

Methods The NIHR Health Informatics Collaborative (NHIC) project was established to enable the sharing and repurposing of routinely captured clinical data for re-use in research. All troponin values measured during the study period (generally 2010 to 2017) were assembled from five contributing cardiovascular centres. The results were dichotomised as being positive or negative based on the 99th percentile of the upper limit of normal for all relevant troponin assays. All patients were followed up on the National Health Service Spine Application, Summary Care Record until death or censoring on 1st April 2017. Statistical analyses were performed using SPSS software version 24.0 (SPSS Inc., Chicago, Illinois, United States).

Results 257948 patients underwent troponin assessment during the study period. The median age was 65 (IQR 50–79) and 55.3% were men. During a median follow-up of 1198 (IQR 514–1866) days, there were 55850 (21.7%) deaths. The proportion of troponins that were positive progressively rose with age from 9.1% in the 18–29 band to 50.0% in the over 90s.

The median positive troponin was 2280 times higher than the median negative troponin, and this relationship was largely invariant with age. A positive troponin was associated with an overall 3.2-fold higher mortality hazard (95% CI 3.1–3.2) than a negative troponin over 3 years. For young patients (18–29 years) this was a particularly strong effect, with a mortality hazard ratio of 10.6 (95% CI 8.5–13.3). The effect declined progressively with age to a mortality hazard of 1.5-