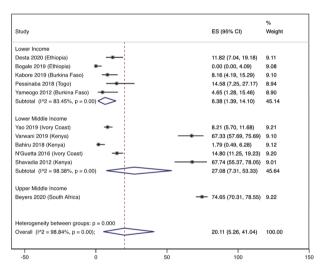


**Abstract 43 Figure 1** In hospital mortality of patients with STEMI stratified by income level of country. Effect Size (ES) is the % of patients with STEMI who died in hospital



**Abstract 43 Figure 2** Meto-anal ysis of the proportion of patients with STEMI who received emergency coronary reperfusion (either PCI or thrombolysis) stratified by country income level

presentation to hospital. This is the first meta-analysis attempting to pool the in-hospital mortality and emergency treatment of patients with STEMI in SSA. The studies included were of moderate to poor quality and suffered from small sample sizes. As the burden of IHD increases in SSA, health systems must adapt to be able to produce better outcomes for patients presenting with STEMI.

Conflict of Interest None

44

IDENTIFYING LOW-RISK RISK CHEST PAIN IN THE EMERGENCY DEPARTMENT WITHOUT TROPONIN TESTING: A VALIDATION STUDY OF THE HE-MACS AND HEAR RISK SCORES

Fraser Todd, James Duff, Ed Carlton. North Bristol Trust, Bristol, UK

10.1136/heartjnl-2021-BCS.44

Introduction Patients presenting to Emergency Departments with chest pain of possible cardiac origin represent a substantial and challenging cohort to risk stratify. Scores such as HE-MACS (History and Electrocardiogram-only Manchester Acute Coronary Syndromes decision aid) and HEAR (History, ECG, Age, Risk factors) have been developed to stratify risk without the need for troponin testing. Validation of these scores remains limited at present.

Methods We performed a post-hoc analysis of the LoDED (Limit of Detection and ECG discharge strategy) randomised-controlled trial dataset. Data collected during the trial, and prior to troponin results, were used to calculate HEAR and HE-MACS scores. Previously published thresholds of <4% for HE-MACS and <2 for HEAR defined very low risk patients. The primary outcome of MACE (major adverse cardiac events) at 30 days was used to assess diagnostic accuracy.

Results 629 patients were included, with a 7% (42/629) incidence of MACE within 30 days. HE-MACS and HEAR scores identified 85/629 and 181/629 patients predicted to be at very low risk of MACE. Within these cohorts, MACE occurred in 0/85 and 1/181 patients respectively. Sensitivity of HE-MACS and HEAR were 100% (95% CI: 91.6-100%) and 97.6% (95% CI: 87.7-99.9%) respectively. Receiver operating characteristic (ROC) curves demonstrated area under curve (AUC) of 0.80 [95%CI: 0.74-0.85] for HE-MACS and 0.76 [95% CI: 0.69-0.82] for HEAR.

Conclusion HEAR and HE-MACS show potential as rule out tools for acute myocardial infarction without the need for troponin testing. However, prospective studies are required to further validate these scores for clinical implementation.

Conflict of Interest None declared

45

## COMPLETE REVASCULARISATION IS ASSOCIATED WITH IMPROVED SURVIVAL AFTER OUT OF HOSPITAL CARDIAC ARREST

Ritesh Kanyal, Nilesh Pareek, Dhruv Sarma, Apurva Bharucha, Rafal Dworakowski, Narbeh Melikian, Ian Webb, Ajay Shah, Philip MacCarthy, Jonathan Byrne. *King's College Hospital, London, UK* 

10.1136/heartjnl-2021-BCS.45

Introduction Coronary artery disease (CAD) is common in patients with Out of Hospital Cardiac Arrest (OOHCA) but the clinical relevance of burden of CAD and evidence for revascularisation strategies in relation to outcomes and modes of death remains unclear. This study sought to assess the extent of CAD as defined by the SYNTAX score and prognostic value of complete compared with incomplete revascularisation by evaluating the SYNTAX revascularisation index (SRI) in patients with OOHCA.

Methods 619 patients with OOHCA were admitted at our centre between 1st May 2012 and 31st December 2017. 237 were excluded for having a non-cardiac aetiology or prior neurological disability. 398 patients were included into the study and of these 272 (xx%) had early coronary angiography and were included in the final analysis. The baseline SYNTAX score (bSS) and residual SYNTAX score (rSS) were determined from the coronary angiograms by a blinded cardiologist. Patients were subdivided into 4 subgroups according to quartiles of the baseline syntax score (bSS) of 0, Group A: 1-10, Group B: 11-20 and Group C: ≥21. Complete