Abstract 33 Figure 1

increased agreement to near perfect ($\kappa=0.90$) and required aCBF to be measured in 32% of cases. CMVR was higher in females at baseline and hyperaemia (1.59 vs 1.21 and 0.86 vs 0.68 mmHg·mL·min⁻¹, respectively, $P<0.05$).

Conclusions In the largest study of aCBF to date, 19.5% of cases identified as physiologically significant by FFR were identified as non-significant by aCBF reduction criteria. Pressure-flow discordance was associated with variability in CMVR and may explain why around 20% of patients experience persistent angina following FFR-guided PCI. Combined FFR + aCBF assessment may be valuable, particularly in the FFR grey zone. *virtuQ™* may have a complementary role in selecting patients for PCI and help diagnose microvascular disease.

Conflict of Interest None

34 NEXT GENERATION P2Y12 INHIBITORS IMPROVE SURVIVAL IN ACS: AN ANALYSIS FROM THE BRITISH CARDIOVASCULAR INTERVENTION SOCIETY DATABASE

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Background Dual antiplatelet therapy (DAPT) is the standard care following presentation with an acute coronary syndrome (ACS), but there remains debate regarding the relative benefits of the available P2Y12 receptor antagonists and their optimal combination with aspirin, particularly in those treated with percutaneous coronary intervention (PCI).

Methods We performed a retrospective analysis of all PCI procedures undertaken in patients with ACS recorded in the British Cardiovascular Intervention Society (BCIS) database between 2007 and 2014 who were treated with DAPT consisting of aspirin and one of either clopidogrel, prasugrel or ticagrelor. The primary outcome measure was 30-day all-cause mortality, with secondary outcome measures of mortality at 1 and 5 years. Odds ratios (OR) for mortality were determined from multivariable logistic regression models allowing for clustering by hospital.

Results Among 259,255 eligible patients with 2 million person-years of observation, 7.4% (19,101) of patients had

ticagrelor, 7.4% (n=19,161) had prasugrel and 85.2% (n=220,993) were treated with clopidogrel for ACS. A total of 41,107 (12.2%) patients died during a median of follow-up of 3.2 years (IQR: 1.6–5.2 years). Crude mortality rates were 34.7 (clopidogrel), 30.6 (prasugrel), and 36.9 deaths per 1000-person-years for ticagrelor treated ACS. In an age-sex unadjusted multinomial logistic regression analysis, mortality rates at 1 year in those treated with aspirin and ticagrelor were 64% lower [OR 0.34, 95% CI (0.32–0.36)] than those receiving DAPT with clopidogrel. DAPT with prasugrel was associated with a 27% lower mortality compared to DAPT with clopidogrel (OR 0.73 (0.69–0.77), $p<0.0001$). Stratifying by ACS status, the age-sex adjusted 1-year mortality rate for ticagrelor compared with clopidogrel was 63% lower [(OR 0.37 (0.34–0.40)] in STEMI and 80% lower in NSTEMI [(OR 0.20 (0.18–0.23), $p<0.0001$)]. The reduction in mortality at 1 year in the prasugrel versus clopidogrel group was relatively greater (57%) in individuals with STEMI [(OR 0.43 (0.40–0.45), $p<0.0001$)] compared to those with NSTEMI [(OR 0.64 (0.55–0.74), $p<0.0001$)].

Conclusions This very large, real-world dataset of patients presenting with ACS demonstrates a significant net clinical benefit favouring the use of ticagrelor and prasugrel over clopidogrel in ACS patients for DAPT. This analysis concurs with the data from the landmark TRITON and PLATO RCTs, suggesting these agents should be considered as the standard of care in the management of ACS.

Conflict of Interest None

35 THE IMPACT OF CARDIOVASCULAR DISEASE ON SEX-SPECIFIC ADVERSE OUTCOMES FOLLOWING INTACT ABDOMINAL AORTIC ANEURYSM REPAIR: A SYSTEMATIC REVIEW, META-ANALYSIS & META-REGRESSION

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Introduction Cardiovascular disease is a major cause of death in men with an AAA. Women experience higher operative mortality than men for open (OAR) and endovascular (EVAR) repair of intact abdominal aortic aneurysm (AAA), but the reason for this is not yet established. This study aimed to define differences in cardiovascular pre-operative co-morbidity and peri/post-operative complications for men and women under-going OAR and EVAR, to explore the impact of cardiovascular disease on adverse outcomes following intact AAA repair.

Methods A systematic review, meta-analysis and meta-regression of sex-specific differences in mortality and complications was conducted and reported according to PRISMA and Cochrane guidance, and registered with Prospero (CRD42020176398). Papers reporting outcomes for men and women, following intact primary AAA repair, from 2000-2020 world-wide were included. Separate analyses were conducted for EVAR and OAR. Data sources included: Medline, Embase and CENTRAL databases 2005-2020 searched using ProQuest Dialog™.