**ABSTRACTS - Myocardial Infarction and Ischemia 297A**

### 801-2

**Impact of New Diagnostic Criteria for Myocardial Infarction in an Unselected United Kingdom Cohort With Suspected Cardiac Chest Pain**

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**Background:** The Joint European Society of Cardiology/American College of Cardiology Committee’s revised definition of myocardial infarction (MI) proposes the primary of the cardiac troponin in the diagnosis of MI, with CK-MB a recommended alternative. These recommendations may increase the incidence of MI and reduce case fatality, but this has not been examined prospectively. We therefore assessed the diagnostic impact of these changes in an unselected UK cohort with suspected cardiac chest pain.

**Methods:** We enrolled all patients admitted with suspected cardiac chest pain over 6 months, with usual care provided by the attending physician with serial ECGs and creatine kinase (CK)/aspartate transaminase (AST). Additional blinded measurements of CK-MB mass and troponin T (cTnT) were made. After discharge a blinded panel reviewed the case notes and reached a World Health Organisation diagnosis utilising electrocardiograms/CKAST, a CK-MB diagnosis using CK-MB as the gold-standard cardiac marker at 2 discriminator values (5 and 10μg/L), and a cTnT diagnosis in accordance with the new recommendations.

**Results:** 401 patients were enrolled. In comparison to the WHO diagnosis, CK-MB at 5μg/L diagnosed a further 23.1% (36 of 155) MIs. 11 patients with high risk unstable angina pectoris (UAP) and excluded MI in 4 patients, with overall 51 (12.7%) patients having a significant diagnostic adjustment. At 10μg/L, CK-MB diagnosed 126 patients as MI, 35% as high risk UAP, with a diagnostic alteration in 54 (13.5%) patients. The revised criteria utilising cTnT diagnosed a further 26.1% (45 of 161) MIs, and excluded MI in 4 patients, with 11.5% of patients having a significant diagnostic alteration. Serial CK and AST measurements had a diagnostic sensitivity of 70.5% and 69.0% respectively for MI. Conclusion: Introduction of the revised diagnostic criteria for MI diagnoses an additional 26.1% of patients with MI. CK-MB diagnoses a broadly similar cohort as MI at a lower discriminator value, but not at the higher threshold. Serial CKAST and ECOS mis-diagnose 11.5% of all chest pain admissions when compared with the new definition for MI.

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