**013 PRIMARY CARE DIRECT ACCESS CORONARY ARTERY CALCIUM (CAC) SCORE – PROGNOSIS FROM A NOVEL SERVICE**

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**Introduction** “NICE guidelines 95: Chest pain of recent onset” states that in a clinically low risk patient, negative CAC study alone excludes obstructive coronary disease. We describe a novel service which allows primary care direct access referral for CT CAC, established at UHB in 2011. Our study aims to evaluate the prognostic value of a negative CT CAC within our centre.

**Methods** A retrospective search of the Radiology Information Solution (RIS) system was performed for all patients referred between October 2011 to December 2013. Each report was reviewed on RIS to determine negative studies. Only patients above 35 years who fit the criteria for low risk (<29%) were included. Scans were performed on a dual source CT scanner without prior premedication. Outcome data on major adverse cardiac events (MACE) from the negative studies were obtained via the patient’s electronic records and Office of National Statistics. The follow-up period was 2–4 years.

**Results** 407 patients had CAC studies. 267 patients with a zero CAC score were included. There were no cases of coronary-related deaths, coronary revascularisation or hospitalisation secondary to acute coronary syndrome (ACS). 14/267 (4.9%) patients re-attended the hospital via emergency department with chest pain but had ACS ruled out. 3/267 (1.1%) deaths occurred without prior premedication. Outcome data on major adverse cardiac events (MACE) from the negative studies were obtained via the patient’s electronic records and Office of National Statistics. The follow-up period was 2–4 years.

**Conclusion** Our study suggests that a negative CAC score in a population referred directly from primary care for exclusion of significant coronary disease in line with NICE guidance 95 is associated with a low incidence of cardiovascular morbidity and mortality.

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**014 PATTERNS OF EARLY ATHEROSCLEROSIS FORMATION AND CARDIAC REMODELLING IN HEALTHY ADULTS OF SOUTH ASIAN AND EUROPEAN DESCENT**

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**Introduction** South Asians (SAs) have a higher risk of cardiovascular disease (CVD) and stroke, but paradoxically lower prevalence of peripheral arterial disease (PAD) than Western Europeans (WEs). The aim of this study was to determine early changes in systemic atherosclerotic burden and cardiac remodelling, as measured using whole body cardiovascular MRI (WB-CVMR).

**Methods** 19 SA and 38 age, gender and BMI matched WE were recruited. All were ≥40 years, free from CVD and with a 10-year risk of CVD <20%. WB-CVMR was performed which comprised a whole body angiogram (WBA) and cardiac magnetic resonance (CMR). Those with UMI had significantly higher BNP (median 116 (range 31–133) vs 22.6 (5–175) pg/ml, p = 0.015), lower ejection fraction (54.6 (36–62) vs 68.9 (38–89) %, p = 0.007) and larger end systolic volume (36.3 (27–61) vs 21.7 (5–65) ml/m², p = 0.014). Those with non-specific LGE had lower diastolic blood pressure (68 (54–70) vs 72 (46–98) mmHg, p = 0.013), but no differences in their cardiac function.

**Conclusion** Despite previous reports describing high prevalence of UMI, those who are of low-intermediate cardiovascular risk have a very low prevalence of UMI. LGE typical of UMI is associated with significantly impaired cardiac function, while LGE atypical of UMI has no adverse effect on function.