explain differences in all ages and premature CVD mortality between LAs in England.

Methods All data were sourced for each LA in England. Outcome variables were age-standardised 2012 to 2014 CVD mortality for all ages and those under 75 (premature mortality). Prevalence of ethnic and socioeconomic groups from the UK 2011 census, Public Health England data on index of multiple deprivation (IMD) score, prevalence of smoking, physical activity and obesity/overweight and Ordnance Survey environmental data on percentage of food shops, eating out shops, green/blue space, sporting facilities and health facilities were sourced. We used the Akaike Information Criterion (AIC) to assess which types of variables provided the best statistical model to explain variation in CVD mortality between LAs then used multiple linear regression to assess which variables remained associated with the outcome.

Results Including health, demographic, environment and IMD variables provided the best fit for explaining variation in CVD mortality at all ages, with an adjusted R^2 of 0.63. For premature CVD mortality, excluding environmental data improved the fit of the model and gave an adjusted R^2 of 0.82.

The percentage of Indian and Pakistani ethnic groups in LAs remained associated with all ages CVD mortality, along with higher scores for the employment domain and living environment domain of the IMD. For premature mortality, the percentage of Pakistani and Bangladeshi ethnic groups, excess weight prevalence and higher income and crime IMD scores remained associated.

Conclusion Certain IMD domains and prevalence of some South Asian ethnic groups are important for explaining variation in age-standardised cardiovascular disease mortality at the LA level in England. These findings are valuable for understanding which factors to target to reduce inequalities in CVD mortality between LAs in England.

| P35 | ARE PATIENT OUTCOMES IMPROVING? MAJOR AMPUTATION AND DEATH FOLLOWING LOWER LIMB REVASCULARISATION PROCEDURES IN ENGLAND |

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Background Availability and diversity of lower limb revascularisation procedures have increased in in the past decade, co-inciding with the reconfiguration of vascular services in the United Kingdom. The aim of our study was to investigate whether these developments in care have translated to improvements in patient outcomes.

Methods We used data from Hospital Episode Statistics (HES) to identify patients who underwent endovascular or surgical (endarterectomy, profundaplasty or bypass) lower limb revascularisation for infrainguinal peripheral arterial disease (PAD) in England in 2006–2013. Major lower limb amputations and deaths were ascertained from HES and Office for National Statistics mortality register. Associations of revascularisation procedures with amputation and death outcomes were investigated using Fine-Grey competing risks regression, with adjustment for patient age, sex and comorbidity score. We examined the possible impact of patient selection by stratifying our analyses by indication for revascularisation (intermittent claudication only; severe limb ischaemia without tissue loss; severe limb ischaemia with ulceration; severe limb ischaemia with gangrene).

Results Over the 8 year study period the overall number of endovascular revascularisations increased and the number of surgical procedures decreased: the evidence for this trend was the clearest among patients with the most severe underlying disease (severe limb ischaemia with ulceration or gangrene). The 1 year risk of major amputation reduced from 5.9% (in 2006–07) to 5.5% (in 2012–13) following endovascular evascularization and from 10.8% (2006–07) to 7.4% (2012–13) following surgical procedures (p<0.0001). The risk of death after both types of procedures also decreased, whilst the number of comorbidities and the proportions of patients with more severe underlying disease increased.

Discussion Our findings suggest that patient outcomes following lower limb revascularisation have improved during a period of centralisation and specialisation of vascular services in the United Kingdom, despite higher morbidity and an increasing proportion of patients treated for the severe end of the PAD spectrum.

| P36 | IS IT FEASIBLE TO EVALUATE CARDIAC MRI IN PATIENTS WHO ACTIVATE THE PRIMARY PERCUTANEOUS CORONARY INTERVENTION PATHWAY USING HOSPITAL EPISODE STATISTICS DATA? |

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Background Cardiac magnetic resonance (CMR) imaging is a non-invasive test used to assess the structure and function of the heart. We tested the feasibility of assembling a retrospective cohort study of patients who activate the primary percutaneous coronary intervention (PPCI) pathway using data from Hospital Episode Statistics (HES) and Patient Episode Database Wales (PEDW) to: i) document the use of cardiac magnetic resonance (CMR) imaging in this population; and ii) determine whether CMR is associated with improved clinical outcomes.

Methods Patients from four UK sites were recruited into the prospective cohort study. We assembled a database by linking routinely collected hospital data for the index PPCI admission (demography, clinical, biochemistry and imaging) with HES and PEDW describing inpatient and outpatient NHS episodes in the 12 months following the index PPCI admission. We determined whether we could identify the following from HES/PEDW data: i) the index event (cohort entry); ii) CMR within 10 weeks of the index event (exposure); iii) relevant subgroups of the population (e.g. PPCI, unobstructed coronary arteries, multivessel disease, cardiac arrest, etc.); and iv) clinical outcomes.

Results A total of 1670 patients were recruited prospectively into the cohort study; of these 1612 (97%) had admission data in HES/PEDW that coincided with the index event (±1 day). Only 1227/1612 (76%) had HES/PEDW data that met the criteria for cohort entry; 1110 (91%) were identified as PPCI and 117 (9%) were identified as emergency angiography only. The remainder (385/1612, 24%) did not meet inclusion criteria (PCI procedure code and ST-elevation myocardial

infarction, STEMI, diagnostic code) or their angiography was not identified as an emergency. Hospital data documented that 187 patients had CMR but, in the HES/PEDW data (inpatient and outpatient), CMR was recorded for only 53 of these (28%). We are currently exploring algorithms to identify specific subgroups of particular interest with respect to CMR; early results suggest that we can identify patients who have had cardiac arrest or who have unobstructed arteries but not those with multivessel disease.

Conclusion It is possible to identify patients who activate the PPCI pathway from routinely collected HES/PEDW data. We conclude that it is not currently feasible to document the use of CMR in patients who activate the PPCI pathway from HES/PEDW data although the integration of the Diagnostic Imaging Dataset with inpatient and outpatient HES datasets may make it feasible soon. We are exploring the reasons for the discordance between CMR scans reported in the prospective cohort study and those identified in HES.

P37 **BARRIERS TO AND FACILITATORS OF EFFECTIVE DIABETES SELF-MANAGEMENT AMONG PEOPLE NEWLY DIAGNOSED WITH TYPE 2 DIABETES MELLITUS (T2DM): A QUALITATIVE STUDY FROM MALAYSIA**

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Background To determine the views and experiences of people with Type 2 diabetes (T2DM) in relation to their diabetes self-management and to understand what additional support is required to support lifestyle changes.

Methods A qualitative study using semi-structured face-to-face and audio/telephone interviews. All interviews were audio-recorded, transcribed verbatim and analysed using a thematic approach. Seventeen people with newly diagnosed T2DM (less than 3 years of diagnosis) were recruited from a primary care clinic in the southern region of Malaysia (Johor Bahru).

Results Qualitative analysis revealed three major barriers to diabetes self-management: (i) psychological issues, e.g. depression and anxiety, such as feeling sad about the diagnosis and worried about the future; (ii) social factors e.g. shame and stigma of T2DM, feeling ashamed have diabetes at a young age and being different from peers ; (iii) perceived barriers e.g. environment and culture, such as ineffective support from healthcare providers, beliefs and use of herbal medicine, and the importance of eating rice and feast culture. Facilitators of diabetes self-management included greater perceived self-efficacy such as being disciplined about eating well, good support from immediate family members and religiosity.

Conclusion This study represents novel findings describing barriers and facilitators of effective T2DM self-management in Malaysia. It identifies specific cultural factors that are unique to the Malaysian population that have not been reported in western studies. If diabetes self-management education is to meet people's needs within this region factors such as these need to be considered when developing new T2DM education programmes.

P38 **DECISION REGRET IN MEN TREATED FOR LOCALISED PROSTATE CANCER: RESULTS FROM THE LIFE AFTER PROSTATE CANCER DIAGNOSIS STUDY**

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Background Men with localised prostate cancer have a number of treatment options. Treatments carry associated benefits and side- and late-effects. The Life After Prostate Cancer Diagnosis study is a UK-wide survey of men 18–42 months post-diagnosis of prostate cancer. The survey included treatment questions, the Decision Regret Scale (DRS) and a single item on decision-making participation. The aim of this sub-study is to explore the association of decision regret with prostate cancer treatment and patient perception of participation in decision making.

Methods The English arm of the survey achieved a 60.3% response rate (30 465 respondents). Men diagnosed with stage 1–3 disease were included in this sub-study (n=16,808). Descriptive statistics were used to explore associations between DRS scores (0–100), self-reported treatments and perceived participation in decision-making.

Results 12 600 (75.0%) men completed the DRS. Due to the skewed nature of the data, decision regret was categorised as 'None' (score=0; 36.5%), 'Low' (score=5–20; 31.6%) and 'High' (score=$\geq$25; 31.8%). Levels of regret were lowest in men who underwent brachytherapy alone and surgery alone (25.8% and 27.5% respectively reporting 'High' regret). Men who received combination therapy (e.g. radiotherapy and hormones) reported higher levels of regret compared to men having a single therapy (34.8% vs. 28.3% reporting 'High' regret). 28.6% of men on active surveillance reported a high level of regret. 74.2% of men said their views were definitely taken into account in treatment decisions: 22.6% of these reported high regret. 2.8% of men said their views were not taken into account; 62.8% reported high regret.

Conclusion These preliminary analyses show a strong association between perceived involvement in treatment decision making and subsequent decision regret in men with prostate cancer. Levels of regret also vary according to the type of treatment received. Interestingly, men on active surveillance who receive no treatment report similar levels of regret to those who undergo surgery. Further analysis will investigate the impact of patient characteristics and functional outcomes (urinary, bowel and sexual) on levels of regret.

P39 **EMERGENCY ADMISSIONS TO HOSPITAL FOR OLDER PEOPLE WITH COPD DURING THE RESHAPING CARE FOR OLDER PEOPLE PROGRAMME (RCOPP): AN ECOLOGICAL STUDY**

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