P2-97 HOMOCYSTEINE LEVELS AND DIETARY PATTERNS AMONG YOUNG ADULTS FROM A BIRTH COHORT IN BRAZIL

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Introduction Hyperhomocysteinemia has been associated with ischaemic heart disease and stroke. Dietary intake of folate and other vitamins is a major determinant of blood homocysteine concentration. The objective of this study is to analyse the plasma homocysteine concentrations in young adults who have been followed since birth. In addition, homocysteine concentrations are presented in according to the main dietary patterns previously identified in this cohort.
Methods The 1982 Pelotas birth cohort included 5914 children who were born in three maternities in a city of Southern Brazil (Pelotas). In 2004–2005, members of this cohort were interviewed and blood was collected in 3827 subjects. Food frequency questionnaire was applied in the interview and three main dietary patterns were defined by principal component analysis: common Brazilian (CB), processed food (PF) and vegetable/fruit (VF). Serum levels of homocysteine were determined using immunoassay analyser.
Results The mean of homocysteine was 8.45±3.27 μmol/l, and it was higher in men (9.50±3.71 μmol/l) than in women (7.39±2.32 μmol/l). Higher means of homocysteine were observed among subjects from the third tertile of intake for CB and PF dietary patterns. However, an inverse association was observed between levels of homocysteine and the tertiles of VF dietary pattern. The means of homocysteine were 8.73±3.36, 8.44±3.38, and 8.19±3.09 μmol/l, respectively in the tertiles of VF dietary pattern ($p<0.001$).
Conclusion These findings suggest that homocysteine concentrations were lower among subjects who adhered to the healthy dietary pattern.

P2-98 PRIOR PSYCHIATRIC HOSPITALISATION PREDICTS MORTALITY IN PATIENTS HOSPITALISED WITH NON-CARDIAC CHEST PAIN: A DATA LINKAGE STUDY BASED ON THE FULL SCOTTISH POPULATION (1991–2006)

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Introduction Non-cardiac chest pain (NCCP) is considered a benign condition, associated with a low mortality rate. Contemporary population based studies describing outcomes in NCCP are lacking however. To our knowledge, the relationship between psychiatric disorders and survival in patients with NCCP has not been investigated. This data linkage study investigated case-fatality following a first hospitalisation for NCCP and examined the effect of a previous psychiatric hospitalisation on short-term all-cause and CVD specific mortality.
Methods A population-based retrospective cohort study of 159 888 patients discharged from hospital in Scotland (1991–2006) following a first hospitalisation for NCCP using routinely collected hospital morbidity and mortality data. All-cause and cardiovascular disease (CVD) mortality at 1 year following hospitalisation was examined.
Results 4.4% (3514) of men and 3.9% (3136) of women with a first NCCP hospitalisation had a psychiatric hospitalisation in the 10 years preceding incident NCCP hospitalisation; those with a previous psychiatric hospitalisation were younger and more socio-economically deprived (SED). Crude case-fatality at 1 year was higher in patients with a previous psychiatric hospitalisation compared to those without (men 6.3% vs 4.3%; women 5.4% vs 3.6%), in all age groups and all SED quintiles. Following adjustment (year of NCCP hospitalisation and SED), the hazard of all-cause and CVD-specific mortality at 1 year was higher in men and women with a previous psychiatric hospitalisation, and inversely related to age.
Conclusions Previous psychiatric hospitalisation should be considered in the risk stratification of patients discharged from hospital with a diagnosis of NCCP. Cardiovascular prevention strategies should target this hard to reach group.

P2-99 TIME TRENDS IN FIRST AND SUBSEQUENT HOSPITALISATION FOR COPD IN SCOTLAND, 1991–2009

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Introduction Chronic obstructive pulmonary disease (COPD) is a major cause of morbidity and mortality. Long-term trends describing the hospital burden of COPD are sparse.
Methods A retrospective cohort study using the Scottish Morbidity Record Scheme. First and subsequent hospitalisations for COPD in Scotland (1991–2009) were identified. Age standardised hospitalisation rates were calculated. Age and sex-specific trends in first and subsequent hospitalisation were modelled (Joinpoint regression).
Results There were 63 996 first hospitalisations for COPD (1991–2009). Over time the rate of first hospitalisation fell in men and remained stable in women >55 years old, but rose in both men and women 35–54 years old. In total 64 942 individuals contributed to 185 200 readmissions. Readmission rates increased in men aged 35–54 years and >75 years old. A trend towards falling readmission rates in men aged 55–74 years, in whom the burden of COPD is greatest, was observed. In women, rates of readmission increased in all age groups. However the rate of increase slowed in those aged 55–84 years in the latter period of the study.
Conclusions The hospital burden of COPD is high and driven by readmissions. Our data suggest that the COPD epidemic may be approaching a peak. However, incident hospitalisation for COPD in men and women 35–54 years old are increasing and as survival following an incident COPD hospitalisation improves and the population ages, the absolute number of hospital admission for COPD will increase. Alternates (cost-effective) models to hospital care are urgently required to meet this demand.

P2-100 THE RELATIONSHIP BETWEEN POST TRAUMATIC STRESS DISORDER AND HYPERTENSION AMONG 105 180 ASYLUM SEEKERS IN THE NETHERLANDS

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Objective To determine the relationship between post-traumatic stress disorder (PTSD) and hypertension among asylum seekers in the Netherlands.
Methods Data were obtained from the Dutch national electronic database of the Community Health Services for Asylum Seekers (MOA) from 2000 to 2008. Asylum seekers aged ≥18 years at arrival in the reception facilities were included in this study (N=105 180). The diagnosis of hypertension was coded according to the Dutch list of the International Classification of Primary Care, while PTSD was

diagnosed using the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV) criteria.

Results People with PTSD were more likely than those without PTSD to have hypertension even after adjusting for age, sex, world region of origin, length of stay in the Netherlands, and obesity (OR=1.72, 95% CI 1.50 to 1.96). There was an interaction between PTSD and co-morbid depression (p=0.006), indicating that the effect of PTSD and depression on hypertension were independent. When the analyses were stratified by depression status, among non-depressed group, individuals with PTSD had higher odds of hypertension than those without PTSD (OR=1.36, 95% CI 1.17 to 1.59). However, among the depressed individuals, there was no association between PTSD and hypertension even after adjustment for other factors: 1.09 (95% CI 0.77 to 1.53).

Conclusions Our findings suggest that there is a positive relationship between PTSD and hypertension among asylum seekers in the Netherlands; and this relationship is independent of comorbid depression. Clinicians and policy makers need to take history of PTSD into account when screening and treating asylum seekers for hypertension.

P2-101 PRISONER MORTALITY IN SCOTLAND 1996–2007: RETROSPECTIVE COHORT STUDY

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Introduction Mortality is substantially increased among those who have been imprisoned but there is little information about the extent to which excess mortality might be explained by deprivation. All cause mortality among Scottish prisoners has not previously been described.

Methods Standard record linkage methods were used to link Scottish Prison Service and mortality data for individuals imprisoned in Scotland for the first time between 1 January 1996 and 31 December 2007.

Results Among 76 627 individuals there were 4414 deaths (3928 in men). Compared to the general population the RR of mortality (adjusted for age and year of death) was 3.3 (95% CI 3.2 to 3.4) for men and 7.5 (6.8 to 8.2) for women. Further adjustment for deprivation accounted for part of this excess (adjusted risks 2.3 (2.2, 2.4) and 5.6 (5.1, 6.1) for men and women respectively). RRs were highest for drug and alcohol related causes, suicide and homicide and were markedly higher among women than men for these causes. Out of prison death rates were highest in the first week after discharge from prison. Mortality rates were lower in those with longer total duration in prison and higher in those with more episodes in prison.

Conclusions People who have been imprisoned in Scotland experience substantial excess mortality that is only partly explained by their levels of deprivation. The association of increased mortality with multiple shorter periods in prison and the concentration of deaths in the early period after prison discharge have substantial implications for policy and practice.

P2-102 DEVELOPMENTAL TRAJECTORIES OF BODY MASS INDEX IN CHILDHOOD: IS MATERNAL SMOKING DURING PREGNANCY A CRITICAL EXPOSURE?

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Introduction Intrauterine life has been identified as a critical period for the development of obesity. Research has consistently shown that prenatal exposure to maternal cigarette smoke (PEMCS) is associated with a number of adverse fetal, obstetrical and developmental outcomes. While PEMCS has emerged as an important risk factor for overweight in offspring, no consensus exists on the pattern or duration of impact. This study seeks to further examine the role of PEMCS on developmental body mass index (BMI) trajectories in children up to 10 years of age.

Methods Data on mother–child pairs (n=1291) was obtained from the Quebec Longitudinal Study of Child Development, which includes a range of social and biological information on child development. Developmental BMI trajectories were established empirically, with a group based modelling strategy, using repeated measurements of height of weight up to age 10. This approach (TRAJ) complements both hierarchical and latent growth curve modelling for analysing developmental trajectories.

Results Four distinct BMI trajectories were identified: early onset overweight (4.4%), increasing to overweight (2.7%), stable overweight (26.1%) and never overweight (66.8%). PEMCS was associated with increased risk of overweight at age 10 (OR: 3.3, 95% CI 1.96 to 5.57) and with trajectory membership (p<0.003).

Conclusions The elevated risk of excess weight among the offspring of smoking mothers supports the paradigm of in utero and early life obesity prevention. Our approach to longitudinal childhood weight analysis, which allows for heterogeneous population trajectories, may help to improve our understanding of the different pathways leading to obesity in adulthood.

P2-103 IS THE SOCIOECONOMIC PATTERNING OF TYPE II DIABETES MEDIATED BY SLEEPING PROBLEMS? EVIDENCE FROM THE WEST OF SCOTLAND

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Introduction Sleep deprivation produces physiological changes similar to those that occur in the development of diabetes. Sleeping patterns may therefore act as a mediator between socioeconomic status and diabetes.

Methods Data are from the West of Scotland Twenty-07 Study. 953 respondents aged approximately 35 at baseline and followed for 20 years with four repeat interviews had valid data and were free of diabetes at baseline. Diabetes at age 55 was identified by self-report of diabetes, diabetic medication or HbA1c values ≥6.2. Latent class analysis identified four common patterns of sleep over the 20 years: healthy sleep, problems maintaining sleep, developing problems, and chronic sleeping problems. These were used in a path analysis to investigate whether social class differences in diabetes incidence were mediated by sleeping patterns, adjusting for baseline smoking status, BMI and gender.

Results People in a manual social class at baseline were 2.3 times more likely to have diabetes at age 55 compared to those from non-manual classes (95% CIs: 1.32 to 3.99), controlling for baseline characteristics. With further adjustment for long-term sleeping patterns this OR was reduced to 2.03 (95% CI 1.28 to 3.22). Those from a manual social class were more likely to experience chronic sleeping problems than those from non-manual classes (OR: 2.68, 95% CI 1.51 to 4.76) and those with chronic sleeping problems were more likely to develop diabetes than those with healthy sleeping patterns (OR: 4.22, 95% CI 1.99 to 8.96).

Conclusion Findings support partial mediation of socio-economic differences in diabetes incidence via long-term sleeping problems.