

**Conclusion** The algorithm showed good performance to identify COPD patients among those individuals registered in the regional healthcare system confirming the strength of administrative data for monitoring chronic diseases.

**P2-142 EFFECT OF CHRONIC THERAPY WITH STATINS BEFORE INFARCTION IN PATIENTS WITH ACUTE MYOCARDIAL INFARCTION**

doi:10.1136/jech.2011.142976i.77

<sup>1</sup>C Sorge, <sup>1</sup>U Kirchmayer,\* <sup>1</sup>A P Barone, <sup>1</sup>N Agabiti, <sup>1</sup>D Fusco, <sup>1</sup>V Belleudi, <sup>1</sup>M Davoli, <sup>2</sup>C A Perucci. <sup>1</sup>Department of Epidemiology of the Regional Health Service, Lazio Region, Italy; <sup>2</sup>National Agency of Regional Health Services, Roma, Italy

**Introduction** Efficacy of preventive therapy with statins in reducing mortality and cardiovascular morbidity in patients with and without cardiovascular disease has been shown in clinical settings, but effectiveness results were not reported.

**Objectives** To evaluate whether chronic statin therapy before infarction reduces mortality within 30 days after acute myocardial infarction (AMI) and investigate potential confounders/effect modifiers (gender, age and comorbidities).

**Methods** Hospital discharges of AMI patients ( $\geq 35$  years) resident in the Lazio region in 2007–2008, were selected, excluding patients with AMI or revascularisation procedures (aortocoronary bypass, PTCA) in the preceding 9 years. Statin use (ATC: C10AA, C10B) during 1 year preceding the index admission was assessed through the drug claims information system; patients were defined “partially adherent” with 20%–80% days covered by statin doses and “adherent” with 80% and more coverage. Crude and adjusted 30-day mortality risks of statin users vs nonusers were estimated using logistic regression models. The role of gender and age as effect modifiers, interaction terms were included in the model.

**Results** Among 6790 AMI patients statin users showed reduced mortality risk compared to nonusers (OR=0.75, 95% CI 0.58 to 0.98 for partially adherent, OR=0.85 95% CI 0.66 to 1.09 for adherent). The protective effect was more evident in females (OR=0.74, 95% CI 0.52 to 1.05 for partially adherent, OR=0.67 95% CI 0.46 to 0.97 for adherent) and in older people (>85 years) (OR=0.84, 95% CI 0.50 to 1.40 for partially adherent, OR=0.51 95% CI 0.29 to 0.91 for adherent).

**Conclusions** Chronic statin therapy before infarction reduced 30 days mortality in patients with AMI, especially in females and elderly.

**P2-143 TRENDS IN THE PREVALENCE OF DIABETES AND DIABETIC RETINOPATHY AMONG JAPANESE URBAN POPULATION**

doi:10.1136/jech.2011.142976i.78

A Kitamura,\* E Nagano, M Uno, M Okada, M Kiyama, M Nakamura, T Okada, K Maeda, Y Shimizu, Y Ishikawa. Osaka Medical Center for Health Science and Promotion, Osaka, Japan

**Introduction** The purpose of this study was to examine trends in the prevalence of diabetes (DM) and diabetic retinopathy (DR) between 2001 and 2009 years among Japanese population in Osaka, urban area in Japan.

**Methods** This study was a population-based study including 10 companies' employees and 1 community residents in Osaka, aged in 30–79 years, who underwent cardiovascular routine health examination at 2001–2003 (7186 participants), 2004–2006 (6908 participants) and 2007–2009 (7530 participants). We compared the prevalence of DM and DR among these three periods. DM was defined as HbA1c $\geq 6.5\%$  (Japan Diabetes Society's unit) or patients

taking medication, and pre-DM was defined as HbA1c $\geq 5.6\%$  and HbA1c $< 6.5\%$ . Fundus photographs were graded using modified Scott classification of diabetic change. DR was defined as 1 degree or greater of Scott classification or as significant retinal haemorrhage excluding hypertensive retinal haemorrhage and retinal vein thrombosis.

**Results** Age-adjusted prevalence of DM was also significantly increased from 2001 to 2003 (2.6%) to 2007–2009 (3.9%) in men and women (p for trend $< 0.01$ ). The respective prevalence of pre-DM was also significantly increased from 3.9% to 8.7% (p for trend $< 0.001$ ). The age-adjusted prevalence of DR was 13%–15% in men and 11%–13% in women, both of which showed no significant change from 2001–2003 to 2007–2009.

**Conclusion** A significant increase in the prevalence of DM and pre-DM implies the importance of prevention and early detection for DM and DR in urban Japanese populations.

**P2-144 AN EVALUATION OF DIETARY AND EXERCISE INTERVENTION FOR HYPERTENSIVE MEN**

doi:10.1136/jech.2011.142976i.79

<sup>1</sup>K Kitaoka,\* <sup>1,2</sup>J Nagaoka, <sup>1,3</sup>T Matsuoka, <sup>1,4</sup>C Shigemura, <sup>1</sup>W Aoi, <sup>1</sup>S Wada, <sup>5</sup>H Asano, <sup>6</sup>N Sakane, <sup>1</sup>A Higashi. <sup>1</sup>Graduate School of Life and Environmental Sciences, Kyoto Prefectural University, Kyoto, Japan; <sup>2</sup>Higashiosaka City, Osaka, Japan; <sup>3</sup>Kasai City, Hyogo, Japan; <sup>4</sup>Kyoto College of Nutritional & Medical Sciences, Kyoto, Japan; <sup>5</sup>School of Nursing, Kyoto Prefectural University of Medicine, Kyoto, Japan; <sup>6</sup>Division of Preventive Medicine, Clinical Research Institute, National Hospital Organization Kyoto Medical Center, Kyoto, Japan

**Introduction** This study evaluated the effect of a 6-month health intervention program conducted from 2003 to 2008 for hypertensive men in Japan.

**Methods** The subjects, volunteers aged 50–75 years, were divided into 45 and 25 men for the intervention and control groups, respectively. We performed dietary and exercise education five times for the intervention group and conducted two health checkups for both groups. We compared lifestyle, and physical and mental health criteria at baseline, and immediately after the intervention.

**Results** During the 6-month intervention, the follow-up rates were 97.8% and 76.0% in the intervention and control groups, respectively. At the baseline, there were no differences in physical status or lifestyles between the intervention and control groups. After the program, no significant change was shown in the urinary excretion ratio of Na/K in the control group (3.5–3.2, p=0.768), but a significant decrease was demonstrated in the intervention group (2.6–2.2, p=0.023). The exercise habit, a walk of more than 30 min everyday, increased significantly in the intervention group. No significant change in the mean systolic or diastolic blood pressure (mm Hg) was shown in the control group (149.3–147.0, p=0.199, 89.2–87.5, p=0.171), but the intervention group showed a significant decrease (151.0–146.0, p=0.034, 93.5–88.6, p<0.001).

**Conclusion** In the intervention group, dietary and exercise habits were improved by health education, and the Na/K ratio and blood pressure significantly decreased for the next 1-year period.

**P2-145 BMI AND THE RISK OF HOSPITALISATION**

doi:10.1136/jech.2011.142976i.80

<sup>1</sup>R Korda,\* <sup>1</sup>E Banks, <sup>1</sup>M Clements, <sup>2</sup>A Bauman, <sup>3,4</sup>B Liu, <sup>3</sup>H Bambrick, <sup>3</sup>L Jorm. <sup>1</sup>The Australian National University, Canberra, ACT, Australia; <sup>2</sup>University of Sydney, Sydney, New South Wales, Australia; <sup>3</sup>University of Western Sydney, Sydney, New South Wales, Australia; <sup>4</sup>University of NSW, Sydney, New South Wales, Australia

**Introduction** Obesity and overweight have a range of health effects, yet little evidence is available on their effect on hospitalisation.

This study quantifies the risk of hospitalisation relating to overweight and obesity.

**Methods** 241 949 45 and Up Study participants with linked hospital admissions and death data were followed from recruitment (February 2006 onwards) through to June 2009. Self-reported height and weight were used to classify patients into BMI categories, using cut-points of 15, 18.5, 20, 22.5, 25, 27.5, 30 and 35 kg/m<sup>2</sup>. Rates of incident hospitalisation by BMI were compared using Cox regression, adjusting for a range of confounders.

**Results** Preliminary results on the first 103 040 participants show incident hospitalisation rates to be 299 (95% CI 294 to 304) per 1000 person years for males and 248 (95% CI 243 to 252) for females. Compared with those of healthy-weight (BMI 20–22.5 kg/m<sup>2</sup>), rates in those with severe obesity (BMI 35–50 kg/m<sup>2</sup>) were higher among males (HR: 1.36, 95% CI 1.21 to 1.54) and females (HR: 1.52; 95% CI 1.38 to 1.67). There were clear gradients as weight increased from healthy to higher BMI, more so among females than males, and in people aged 45–64 compared to those aged 65–84, with no evidence of increasing risk of hospitalisation with increasing BMI in those aged over 85.

**Conclusions** Given the excess risk of hospitalisation among overweight and obese individuals, the burden to the health system attributable to overweight and obesity is likely to be substantial, particularly among middle-age adults. High BMI was not significantly related to hospitalisation in the elderly.

**P2-146** EPIDEMIOLOGICAL AND CLINICAL CHARACTERISTICS OF BEHÇET'S DISEASE IN JAPAN, BY YEARS AFTER DISEASE ONSET, USING A CLINICAL DATABASE ON PATIENTS RECEIVING FINANCIAL AID FOR TREATMENT

doi:10.1136/jech.2011.142976i.81

<sup>1</sup>M Kurosawa,\* <sup>1,2</sup>Y Inaba, <sup>3</sup>Y Ishigatsubo, <sup>3</sup>M Takeno, <sup>4</sup>M Nagai, <sup>1</sup>K Yokoyama. <sup>1</sup>Department of Epidemiology and Environmental Health, Juntendo University Faculty of Medicine, Bunkyo-Ku, Tokyo, Japan; <sup>2</sup>Jissen Women's University, Hino, Tokyo, Japan; <sup>3</sup>Department of Internal Medicine and Clinical Immunology, Yokohama City University Graduate School of Medicine, Yokohama, Kanagawa, Japan; <sup>4</sup>Department of Public Health, Faculty of Medicine, Saitama Medical University, Iruma-gun, Saitama, Japan

**Objective** Behçet's disease is an autoimmune disease with multi-system vasculitis. The objective of this study was to explore the natural history of Behçet's disease after onset, using a clinical database on patients receiving financial aid for treatment.

**Methods** In the fiscal year 2005, 16 627 patients with Behçet's disease were registered to receive public financial aid from the Ministry of Health, Labour and Welfare (MHLW) in Japan. The MHLW has an on-line registration system of intractable diseases including Behçet's disease. We obtained the 2005 clinical database, which contained 9416 patients with Behçet's disease. We confirmed the distribution of years from disease onset, and calculated duration from onset to the first doctor's visit. We analysed changes in disease severity, and prevalence of the types of Behçet's disease, according to years after disease onset.

**Results** The proportion of years from disease onset of less than 1 year was 9%, 2–5 years was 15%, 6–15 years was 30%, and more than 16 years was 46%. The average duration from onset to the first doctor's visit was about 2.5–3 years. Prevalence of the complete type of Behçet's disease increased with the years after disease onset. Regarding disease severity, the proportion of severe cases increased with the years from disease onset.

**Conclusion** Using a clinical database with Behçet's disease, we characterised the clinical/epidemiological features of Behçet's disease according to years after disease onset.

**Funding** This study was supported by a Grant-in-Aid for Research Committee of Intractable disease, provided by the MHLW, Japan.

**P2-147** CANCER MORTALITY AND INCIDENCE RISK ACCORDING TO SOCIOECONOMIC STATUS, A PROSPECTIVE STUDY IN KOREA

doi:10.1136/jech.2011.142976i.82

<sup>1,2</sup>S-S Kweon,\* <sup>2</sup>M-H Shin, <sup>2</sup>J Choi. <sup>1</sup>Jeonnam Regional Cancer Center, Chonnam National University Hwasun Hospital, Hwasun, Jeonnam, Republic of Korea; <sup>2</sup>Chonnam National University Medical School, Department of Preventive Medicine, Dong-gu, Gwangju, Republic of Korea

**Introduction** The aim of this study was to evaluate the risk of socioeconomic status (SES) and smoking on cancer mortality and incidence in a large cohort of health examinee.

**Methods** We evaluated data on 512 713 Korean people who had undergone the biannual health examination, organised by National Health Insurance Corporation, aged over 20 at baseline examination. Subjects were classified into four groups according to their amount of health insurance bill, which imposed in proportion to salary or income. All subjects were followed up from baseline examination (2000–2001) until 31 December 2009 using population-based cancer registry and death certification database. A total of 9166 cancer death cases and 27 792 cancer incident cases were identified during follow-up period. Cox proportional hazards model was used to estimate hazard risk (HR) after adjusted age, sex, and smoking status.

**Results** SES had inverse associations with cancer mortality. The estimated HRs (95% CI) were 0.968 (0.916 to 1.023), 0.939 (0.877 to 0.985), and 0.790 (0.746 to 0.837) in 2<sup>nd</sup>–4<sup>th</sup> Quartile, respectively. Smoking habits showed higher risk of cancer death (HR: 1.319, 95% CI 1.259 to 1.382) than lower SES, and also showed significant association with cancer incidence (HR: 1.136, 95% CI 1.101 to 1.172). The association between SES and cancer incidence showed positive trend as opposed to cancer mortality. The highest SES group were at greatest risk of cancer incidence (HR: 1.136, 95% CI 1.096 to 1.176), and 2<sup>nd</sup> Q and 3<sup>rd</sup> Q group were also showed significant higher risk.

**Conclusion** Impact of SES on the risk of cancer mortality and incidence were showed reversely.

**P2-148** EARLY LIFE INFECTIONS AND PUBERTAL ONSET: EVIDENCE FROM HONG KONG'S "CHILDREN OF 1997" BIRTH COHORT

doi:10.1136/jech.2011.142976i.83

M K Kwok,\* G M Leung, T H Lam, C M Schooling. *Life course and Lifestyle Epidemiology Group, School of Public Health, Li Ka Shing Faculty of Medicine, The University of Hong Kong, Hong Kong SAR, China*

**Introduction** With economic development, puberty occurs at younger ages, and may contribute to cardiovascular diseases and hormone-related cancers. Factors determining pubertal timing are poorly understood. The growth axis active during puberty is also active in the first 6 months of life and interacts with the immune system.

**Methods** The authors examined whether prior infections, proxied by number of hospital episodes for infections at different ages, were associated with age at pubertal onset (Tanner stage II) using interval-censored regression in a population-representative Chinese birth cohort "Children of 1997" (n=7527). Mediation by growth was also examined.