(1.55, 1.64); MI 1.55 (1.46, 1.65); SD 1.30 (1.07, 1.58); stroke 1.37 (1.29, 1.45); CV death 1.45 (1.35, 1.57); and all thromboembolic events 1.47 (1.41, 1.54).

Conclusion In this study patients with a diagnosis of RA were 70% more likely to die and 30–40% more likely to suffer an acute major thromboembolic event compared with patients with a diagnosis of OA but not RA. In addition, patients with a diagnosis of RA were 60% more likely to die, and 30–50% more likely to suffer an acute major thromboembolic event compared with patients with no arthritis diagnosis.

OP0110 PERFORMANCE OF A TELEPHONE QUESTIONNAIRE ADMINISTERED BY LAY PEOPLE FOR CASE DETECTION OF RHEUMATOID ARTHRITIS AND SPONDYLARTHROPATHY

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Background Strategies for case detection in epidemiological surveys have explored the performance of questionnaires administered by mail, self-report or in face-to-face interview by health professionals, further confirmed by a rheumatologist. The cost of such strategies and the moderate validity of these methods has led to the preliminary development of a telephone questionnaire administered by lay people that would be useful for inflammatory rheumatic diseases.

Objectives To assess the accuracy of a questionnaire for epidemiological detection of rheumatoid arthritis (RA) and spondylarthropathies (SPA) suitable for telephone survey conducted by lay people.

Methods A questionnaire was created with a list of items derived from signs, symptoms, self-report diagnosis and currently accepted epidemiological criteria for classification of RA (ACR 1987) and SPA (ESSG 1991) by a group of rheumatologists and epidemiologists. RA, SPA and control patients were recruited in rheumatology outpatient clinics in 9 university hospitals in France. All patients were examined and had diagnosis confirmed by a certified rheumatologist. In each centre, lay people from self-help group or social league were trained by a unique team of professional poll staff to conduct a telephone interview in a standard manner using this questionnaire. Each group of RA and SPA was compared to the control group for sensitivity (Se) and specificity (Sp) of each item and overall concordance with clinical diagnosis.

Results A total of 230 RA, 175 SPA and 195 controls with mean age of 55.6, 46.4 and 55.0 years, and female/male ratio of 2.6, 0.7 and 2.2 respectively were recruited. They were interviewed on the phone by 3 to 10 people in each centre. In RA-control comparison, a set of 5 items, most belonging to the ACR criteria, were found the most informative in logistic regression analysis, with self-report diagnosis showing the highest performance (Se = 0.98, Sp = 0.86). In SPA-control comparison, a few items belonging to the set of ESSG criteria were the most informative, with self-report diagnosis showing the highest performance (Se = 0.85, Sp = 0.97). The overall concordance of each set with clinical diagnosis for RA and SPA was 98% and 93% respectively. When self-report diagnosis was not considered, queries on peripheral joint and spinal pain contributed to detection performance most significantly, with 90% and 78% concordance with clinical diagnosis of RA and SPA respectively. When

modelling the selected items in a hypothetical population with 0.5% or 1% prevalence rate, the positive predictive value ranged from 4 to 26%, and the negative predictive value was 99%.

Conclusion A questionnaire using clinical diagnosis self-report and presentation of epidemiological criteria in common language by lay people has been developed. Given its performances in this sample at high risk for error of specificity, it is available for case detection in epidemiological survey in the general population, provided diagnosis is further confirmed by a certified rheumatologist as part of the case ascertainment strategy.

OP0123 BODY MASS INDEX AND PHYSICAL ACTIVITY AS RISK FACTORS FOR PRIMARY OSTEOARTHRITIS. A COHORT STUDY IN 50.034 PERSONS

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Background As no cure exists for osteoarthritis other than operation, it is important to identify preventable aetiological factors.

Objectives To describe the association between middle age body mass index (BMI) and physical activity, and later total hip replacement (THR), in a large cohort.

Methods The Norwegian Arthroplasty Register records all THRs and hip revisions performed in Norwegian hospitals.¹ In three Norwegian counties the National Health Screening Service (NHSS) three times conducted a cardiovascular screening during the years 1974–88. Persons born 1925–42 were screened repeatedly at median ages 42, 47 and 53 years.² For 89% of the participants data on body weight and height were available at the NHSS from a screening for tuberculosis, conducted during the years 1963–75 (median age 34 years).³ The registers were matched and survival analyses performed using the Cox regression model. An event was recorded when a person had his first THR for primary osteoarthritis. Follow up was 1989–98. We controlled for age at screening, body height, marital status and smoking.

Results Analysing screening data from the second cardiovascular screening only (attendance 92.8%) we found 672 THRs. A dose-response relationship was found between BMI and the risk for THR. Women in the highest BMI quarter had a relative risk of 3.0 (95% CI 2.2–4.2) compared to women in the lowest quarter. The corresponding figure in men was 2.0 (95% CI 1.5–3.0). Physical activity at work also showed a dose-response relationship. Both women and men in the most active group had a relative risk for THR of 2.1 compared to the least active group.

Analyses of BMI data from each of the four screenings indicated that the predictive value of BMI for later THR was strongest at the tuberculosis screening and decreased gradually and considerably at the following screenings.

Conclusion This study confirmed that high physical activity at work increases the risk for THR-demanding osteoarthritis in men. Contrary to earlier findings, the effect was equally strong among women in our population. We found that even for levels of BMI and physical activity at work that were well within the normal ranges an increment in these risk factors increased the risk for THR-demanding osteoarthritis. Our findings indicate that the peak impact of BMI on the development of hip osteoarthritis may be at, or before, the age of 34 years.