Paranà (UFPR), Curitiba, Brazil, and the Fondazione IRCCS Ca' Granda, Milan, Italy.

Methods The objects of the joint project include:

- a cohort mortality study among asbestos–cement workers in the Curitiba Metropolitan Region;
- the implementation of a registry of malignant mesothelioma (MM) in Curitiba based on the Italian model.

MM cases are already collected (1998–2012) in the Curitiba Population-Based Cancer Registry (RCBP); but information on asbestos exposure is unavailable and diagnostic accuracy of MM has never been evaluated. For this reason, we translated the Italian standardised questionnaire on asbestos exposure and are implementing the database for MM cases in Portuguese. Clinical documentation of adult subjects with ICD-10 codes C45 (mesothelioma), C38 (mediastinal and pleural cancers), and C48 (peritoneal cancers) in the RCBP will be examined to evaluate diagnostic accuracy.

Results The questionnaire has been preliminarily tested on 40 workers in Curitiba. The software has been translated and adapted. Review of clinical records of 269 subjects is in progress; we identified about 20% of death certificate only cases. For the cohort study, we obtained lists of workers employed since the beginning of production in three asbestos-cement factories. We identified about 4000 workers, 2300 with valid date of birth.

Conclusion For the cohort study, we are exploring the existence of additional sources to complete missing information and contacting relevant institutions to perform the mortality follow-up. Within 2018 we foresee to have the questionnaire ready for use, the software implemented, and the clinical documentation review completed. This international collaboration is an important step towards a better assessment of the impact of chrysotile use in Brazil.

1348 NIGHT SHIFT WORK, BODY WEIGHT GAIN AND OBESITY OCCURRENCE: PRELIMINARY RESULTS WITH 3 YEARS OF FOLLOW-UP

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Introduction Previous studies in Asia developed areas showed inconsistent findings on the association between nightshift work and obesity occurrence, and there has been no study in Chinese. This study aims to examine the association between nightshift work, body weight gain and obesity occurrence in a Chinese night shift cohort after 3 years of follow-up.

Methods We recruited 5256 male workers from 6 companies in China in 2013. We used standardised questionnaire to collect participants' information on occupational history of shift work. Night shift work was defined as ever worked in a working schedule during 00–5 am at least once per month for no less than one year. Anthropometric parameters were measured using standard medical protocols. All participants were followed up till the end of 2017. Multiple logistic regression analysis was conducted to evaluate the association between night shift work and overweight (BMI $\geq$25), obesity (BMI $\geq$30) and BMI gain status.

Results We only included 492 male workers in this report, as the data of other participants have not been input whilst the overall results from entire cohort will be presented in ICOH 2018. The mean age of night shift work and daytime workers is comparable (30 vs 29 years). Compared with the daytime workers, slightly more night shift workers were current smokers (25.1% vs 23.7%) and alcohol drinkers (28.1% vs 22.2%), but fewer had vigorous physical activity (29.9% vs 59.4%). More nightshift workers than daytime workers slept less than 8 hours per night (60.5% vs 34.8%) but the proportion of working longer than 55 hours per week was substantially higher (6.6% vs 3.7%). After three years of follow-up, night shift workers showed more BMI gain than the daytime workers (1.45 ± 1.10 vs 1.32 ± 1.09). More night shift workers with large body mass index at baseline tended to retaining in the same category of overweight (BMI $\geq$24 kg/m^2) status with odds ratios of 1.49 (95% CI: 0.95 to 2.33), and stayed in the same category of abdominal obesity with OR of 1.34 (95% CI: 0.86 to 2.11). More night shift workers developed abdominal obesity from normal body size during 3 year period of follow-up and the risk of abdominal obesity was 1.43 (95% CI: 0.75 to 2.73), but there was no statistical significance.

Conclusions This study provided preliminary evidence to on a possible link between nightshift work and obesity occurrence or body weight gain in Chinese male workers; however, these findings would be verified in a larger dataset of all 5256 workers.

1350 THE PREVALENCE AND RISK OF MUSCULOSKELETAL DISORDERS IN DENTAL TECHNICIANS IN SOUTH AFRICA

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Introduction Musculoskeletal disorders (MSDs) affect the health, productivity and careers of the working population. Disorders of the musculoskeletal system are some of the most common occupational diseases and injuries. Dental technicians are at risk of MSDs as much as other members of the dental professionals as a result of their daily activities which are labour intensive and involve manual work. The risk factors for MSDs among dental professionals are multifactorial.

Methods Quantitative research using a cross sectional correlational survey design was adopted. A purposive sample of 79 technicians was used with 72 valid questionnaires available for analysis. A modified Nordic musculoskeletal questionnaire was used to collect data. Statistical analysis, using SPSS 23 included frequencies, chi square test of independence, independent samples t-test and Pearson's correlation.

Result The 12 month prevalence of MSDs for dental technicians in South Africa was high (90%). For the different body regions, the prevalence ranged from 59.7%–68.1% and the body parts commonly affected are the neck (68.1%), shoulders (59.7%), wrists/hands (68.1%), upper back (68.1%) and lower back (68.1%). Factors that were identified to be strongly associated with MSDs among dental technicians in South Africa are age, years of practice, standing and vibration.