shorter average actual sleeping time than no visual fatigue (p < 0.05), and the visual fatigue could be a predictor to average actual sleeping time.

Conclusions Health surveillance for VDU workers should include not only visual fatigue, but also extra-ocular symptoms, especially in upper limb disorders, and sleep problems. Designing better work-rest schedule and ergonomic workplace may be the preventive strategies at this workplace. Future research with a longitudinal study design is needed to study the psychosocial stress, productivity effects after visual fatigue on VDU workers.

**Abstracts**

**Association between lifestyle behaviors and body weight changes in middle-aged Taiwanese male workers: a 5-year observational cohort study**

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Objectives To investigate association between lifestyle factors and 5-year body weight gain among apparently healthy middle-aged male workers.

Methods A occupational cohort in an electronic-manufacturing factory was established in a medical checkup program in 2002, and was followed up with a health examination in 2007. Baseline comprehensive questionnaires were applied for collection of lifestyle behaviours and abdominal ultrasound was performed for evaluation of hepatic steatosis. Male worker with complete data of baseline lifestyle factors, and laboratory examination, including ALT, ferritin, were included in analysis. Cross-sectional analyses in 2002 were conducted by stepwise multiple linear regressions for exploring significant association between lifestyle factors and log-ferritin. Stepwise linear regression models for 5-year body weight gain were used for identifying significant lifestyle factors with predictive value.

Results A total of 1096 male workers with a baseline mean (SD) age of 32.5 (6.0) were included for analysis. Log-ferritin was positively associated with red meat intake, and negatively associated with blood donation, regular exercise at leisure time, and vegetarian diet. 5-year body weight gain was associated with 12-hour shift work, and vegetarian diet after adjustment for age. In subgroup analysis among overweight males (BMI > 25) with non-alcoholic steatohepatitis (NASH), blood donation was significantly associated with less body weight gain in 5 years.

Conclusions 12-hour shift work, vegetarian diet may increase body weight in male workers. Behaviours of health promotion, such as blood donation, regular exercise at leisure time, were associated with lower level of ferritin, a marker of total body iron load. Blood donation was the strongest factor associated with lower body weight gain within 5 years, especially among males with NASH. Physicians should recognize related behavioural factors for hyperferritinemia and body weight gain, and give high-risk individuals health counselling based on personal risk profiles.

**Indicators to surveillance the health of nursing staff**

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Objectives Nursing morbidity profile has changed according to the working conditions. The profile that was composed of needlestick injuries and infectious diseases a few decades ago has nowadays become prevalent for musculoskeletal disorders. Knowing the health indicators of these workers is an essential tool to implement strategies to promote their health and monitor them. The aim of this study was to analyse health indicators related to nursing work, according to the institutional determinants and health problems.

Methods The study is characterised as epidemiological descriptive, cross-sectional and retrospective, and it was conducted in seven university hospitals in Brazil, in a universe of 44. From 2008 to 2009, information about the health problems of nursing staff-related work was sent by hospitals to researchers. The “System for Monitoring the Health of Nursing Workers (SIMOSTE)”, that is an online system to capture data was used. For data analysis descriptive statistics was used. After the data analysis the System allows to verify the 13 proposed indicators.

Conclusion In synthesis, these indicators will allow the accompanying of effectiveness of the preventive measures adopted by the hospitals and the improvement of working conditions.