

improving information regarding to the work-related diseases and, more specifically, on the trend and variation of benefits paid for them.

**Method** Through the NTEP it is possible to establish a nexus for each area of the economic activity, focusing on data of incapacitating diseases recognised by social welfare and involving more than 15 days' absence from work, using the ICD-10.

**Results** Benefits for work-related diseases increased 128.2% during 2005–2008. However, the greatest changes occurred after 2007. From May 2006 to March 2007, when only the employer's CAT was used, 125 246 Accident and Disease Assistance authorizations were issued. But, with the addition of the NTEP to the CAT this number rose to 293 912, an increase of 134.7% over the period from April 2007 to February 2008. The detachable figures are for “musculoskeletal system and connective tissue” (107 764 cases), “mental and behavioural disorders” (8930 cases), “and “diseases of the nervous system” (8396 cases).

**Conclusions** The accident benefits for work-related diseases are growing more than other welfare benefits. This reality requires more studies and technical insights as well as priorities in terms of specific strategies for OSH policy.

#### 0158 ASSOCIATIONS BETWEEN JOB STRESS, SOCIAL SUPPORT AND INSOMNIA AMONG NURSES

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10.1136/oemed-2014-102362.249

**Objectives** To investigate the association between job strain, social support at work and insomnia among registered nurses.

**Method** A cross-sectional study was conducted among 3.229 nurses (87% women) in 18 major public hospitals in Rio de Janeiro/Brazil. Data collection was based on a comprehensive self-filled questionnaire that included questions on insomnia and the Job Content Questionnaire (JCQ). Job strain (high psychological demands and low control) and social support were evaluated by the Portuguese version of the 2.0-JCQ, defined by the quadrant approach. In addition, emotional demands were also assessed, so that high strain was evaluated considering separately the psychological and the emotional demands. Insomnia was defined as having at least one of the insomnia symptoms: difficulty initiating sleep, maintaining sleep or early morning awakening. Multivariate logistic regression and adjusted odds ratios and 95% confidence intervals were calculated.

**Results** The overall prevalence of insomnia was 34.3%. Individuals with high job strain and low social support experienced insomnia more frequently ( $p < 0.05$ ). After adjusting for socio-demographic, work and health-related variables, high strain doubled the chances of presenting insomnia considering both the psychological (OR=2.20, CI 1.74–2.78) and the emotional demands (OR=1.99, CI 1.57–2.53). High strain in combination with low support at work increased the chances of insomnia even more.

**Conclusions** High strain is suggested as a possible risk factor for insomnia considering both psychological and emotional demands. The lack of social support from co-workers and supervisors seem to potentiate the odds for insomnia.

#### 0159 THE RELATIONSHIP BETWEEN LOW LEVEL BENZENE EXPOSURE AND BLOOD CELL COUNTS IN KOREAN WORKERS

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10.1136/oemed-2014-102362.250

**Objectives** Benzene is a well-known haematological toxin causing aplastic anaemia and leukaemia. Recent studies showed that low level benzene less than 1ppm disturbs the hematopoietic system. However, other studies did not show consistent results. The aim of the present study was to examine the relationship between low level benzene exposure and blood cell counts in Korean workers.

**Method** Blood cell counts of benzene exposed workers were retrieved from a nationwide Worker's Health Examination Database from 2003 to 2008. If a worker did not take a blood test for benzene during 2003–2004, the worker was regarded as a first exposed. Personal air benzene monitoring records were retrieved from nationwide Work Environment Monitoring Database from 2004–2008. Mean benzene levels were calculated and assigned for the various combinations of factory/industry/process codes. Mixed-effects models were employed to examine associations between benzene level, and the numbers of WBC, RBC, platelet, segmented neutrophil, lymphocyte and monocyte.

**Results** 11 281 workers took blood tests during 2005–2008 for the first time. 8679 personal benzene measurements during 2004–2008 across industries were collected. RBC counts showed a significant negative association with low level benzene exposure with a dose-response relationship. WBCs also showed negative association, but did not show a dose-response relationship. Among WBCs, lymphocyte showed a stronger association with low level benzene than other cell types.

**Conclusions** Our findings support the hematotoxicity of low level benzene exposure. Further study with direct benzene measuring for first exposed workers is needed to confirm the low level benzene toxicity in Korean workers.

#### 0160 DEVELOPMENT OF AN INSTRUMENT ASSESSING SYMPTOM EXAGGERATION IN PATIENTS RECEIVING DISABILITY BENEFITS SECONDARY TO MENTAL HEALTH DISORDERS

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10.1136/oemed-2014-102362.251

**Objectives** Symptom exaggeration is a significant issue in patients receiving disability benefits secondary to mental health disorders. Measures designed to detect exaggeration of symptoms are valuable for informing more accurate diagnoses, which can impact claim decision-making, both for disability claim approval and patient management. Our objectives were: 1) to complete a systematic review to identify measures that assess symptom exaggeration in mental health disorders, and 2) using the results from the review, develop an instrument assessing symptom exaggeration in individuals receiving disability benefits secondary to mental health disorders.