Abstracts

575 USING BURDEN OF CANCER TO PROMOTE POLICY CHANGE
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Introduction Occupational cancer is poorly recognised due to its long latency among other factors. Burden of occupational cancer projects are an effective tool for drawing attention to the magnitude of the problem and promoting prevention. We present here some major results from the Canadian Burden of Occupational Cancer project and discuss its use for prevention.

Methods Our methods are based on a similar UK project, with several enhancements. The historic labour force was identified using 1961 through 2001 Census data. Occupational exposure prevalence was estimated using CAREX Canada data, allowing calculation of levels of exposure for 44 carcinogens. Relative risks were based on large epidemiologic studies and meta-analyses representative of Canadian exposure circumstances. Standard methods with Levin’s equation were used to calculate attributable fractions.

Result Exposure to solar radiation was responsible for the largest number of cancers (4550 basal and squamous cell carcinomas annually, 6.3% of all non-melanoma skin cancer). Asbestos came second with 425 mesotheliomas (80.5% of mesothelioma, including para-occupational, but not environmental, exposure), 1900 lung cancers (8.0% of lung cancer), and smaller numbers of larynx and, ovarian, and suspected other cancers. Diesel engine exhaust was responsible for 560 lung cancers (2.4% of lung cancer) and suspected for 200 bladder cancers (2.7% of bladder cancer). Crystalline silica and welding fumes were responsible for 570 and 315 lung cancers (2.4% and 1.3% of all), respectively. Shiftwork resulting in circadian disruption was suspected for between 460 and 1180 breast cancers (2.0%–5.2% of all), annually.

Discussion Results from the project have begun to be used by Canadian regulatory organisations to establish priorities and by advocacy organisations to raise awareness and push for policy change. These efforts and the input from burden estimates have played a role in the governmental campaign to ban asbestos, now scheduled for 2018.

637 ERGONOMIC RISK FACTORS, MUSCULOSKELETAL SYMPTOMS, EXERTION AND WORKLOAD AMONG PHYSIOTHERAPISTS IN A SINGLE REHABILITATION CENTRE
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Introduction Physiotherapists (PTs) apply manual forces such as pushing, pulling and lifting, maintain hazardous postures and static loading during treatment, which predisposes them to work related musculoskeletal disorders (WRMSD). Hence, the aim of this study was to evaluate the risk factors for WRMSDs in a group of PTs working in a rehabilitation centre.

Methods A prospective study was conducted among 120 PTs working in a neuromusculoskeletal rehabilitation centre in an Industrially Developing Country. Musculoskeletal and neurological conditions in adult and paediatric populations were primarily treated in the centre. The PT’s were evaluated with a self-reported questionnaire which included demographic data, short-form Work Style Questionnaire, Nordic Musculoskeletal Pain Questionnaire, Borg CR 10 and NASA Task Load Index. The inclusion criteria were: PTs working for a minimum of 6 months of experience in the same centre, treating a minimum
of 6 hours per day and had availed no more than 15 days of leave in the last 6 months.

Result The mean age of the PTs was 29.5 years. On an average, the PTs worked for 8±1.2 hours per day for 6 days a week. 78% of the PTs complained of pain or discomfort within the past 6 months. The commonest sites of pain were lower back (58%), neck (52%), upper back (50%), wrist and hand (35%), shoulder (32%) and ankle (10%). Analysis of short form of workstyle questionnaire revealed that 70% of the subjects reported an adverse workstyle risk (total score >28). The perceived exertion and workload were also high as over 75% of the PTs had scores of >15 (Borg CR 10) and >50 (NASA Task Load Index) respectively.

Discussion PTs handling both adult and paediatric patients had high risk of developing WRMSD and appropriate recommendations were given based on the results to ensure prevention of WRMSD.

Discussion Onsite occupational health clinics are effective in the management of WRMSD in IT companies.

642 WORK RELATED MUSCULOSKELETAL DISORDERS AMONG ORTHOPAEDIC SURGEONS: A SURVEY STUDY

Introduction Surgeons, especially Orthopaedic Surgeons (OS) maintain awkward postures and repetitive tasks which are ergonomically risky. However, there is a paucity of data on the prevalence of work related musculoskeletal disorders (WRMSD) among OS. Hence, the objective was to evaluate the prevalence and risk factors of WRMSD among OS.

Methods A survey was conducted using a structured questionnaire, disseminated online. There were 57 respondents, who were OS with a minimum working experience of one year, and the surgeons were practicing in the field of orthopaedics only. The structured questionnaire included demographic details such as age, sex, height, weight, total work experience, number of working hours in a day, type or department of work, questions related to regular exercise, physical risk factors associated with working condition, present health status. Nordic Musculoskeletal Questionnaire (NMQ) was used to know the regional involvement, prevalence and disability rate of MSD, in past 7 days or during the last 12 months. The short form of work style questionnaire was used to assess the risk factors of adverse work style. Data were recorded and analysed.

Result The mean age of the OSs was 46.32 years and were predominantly males (96%). On an average, the percentage of OSs with operating hours more than 14 hours was 73.4%. Joint replacement (50.9%) and Arthroscopic surgeries (35.1%), were the commonest surgical procedures carried out by them. A high prevalence rate of work related musculoskeletal symptoms among OS was found, mainly in the low back (68.42%), neck (56.14%), shoulder (42.1%) and upper back (31.57%) regions. Sustained static and/or awkward posture was perceived as the factor most commonly associated with low back and neck symptoms by 84.2% of respondents.

Discussion A high prevalence of musculoskeletal symptoms was reported among OS and interventions to address the risk factors identified are recommended.