EFFECTIVENESS OF PERIODICAL MEDICAL EXAMINATION TO PREVENT WORK-RELATED ILL-HEALTH

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Introduction Periodic health examinations (PHE) have been a fundamental part of occupational health and safety (OHS) practice for decades. Nonetheless, PHE have not received a great deal of attention in health economics and ethics literature, which poses many interesting challenges from an efficiency and an equity perspective.

Methods We performed electronic searches in databases as EMBASE, PUBMED and Cochrane Library from September 2007. Search terms included MeSH, EMTREE and free text terms related to economic evaluation, occupational health intervention and productivity. We independently included all studies based on three criteria:

1. the analysis was a full or partial economic evaluation (cost analyses);
2. included OHS interventions targeted at an employed population; and
3. were written in English, French, or Dutch.

Results The best available evidence assessing benefits of OSH interventions consisted of 156 economic evaluations. A broad range of intervention types was studied in the literature, most frequently health promotion (27%), or multiple intervention types within one study (31%). However, none of these studies specifically focused on PHE. Studies mainly came from Europe (39%) and North-America (51%), and originated in diverse sectors and industries, most frequently health care (15%).

Conclusions Determining the value of OHS proved a theoretically complex endeavour and there are hardly data available on the value of PHE. While the majority of OHS interventions had positive conclusions, most studies were conducted in similar settings and showed substantial methodological deficiencies. Consequently, we need to be cautious to transfer results across settings or countries. Nonetheless, we rendered valuable insight into the potential cost-effectiveness of PHE and key-elements to design a high-quality study. We have now set up a study in Belgium comparing short-, medium- and long-term outcomes in employees undergoing PHE, with a group without an intervention.
Introduction In spite of living in tropical climates, vitamin D3 deficiency is evident in urban Indian population as a corporate lifestyle disorder; Office executives especially, are not exposed to sunlight due to changing lifestyles and long working hours. Incidence of vitamin B12 deficiency is observed to be high, due to predominantly vegetarian diets and insufficient consumption of dairy products, etc. Methods This study was conducted at the Occupational Health Centre, Hazira from September 2016 to January 2017. In the first phase, 300 executives were surveyed and subjected to analysis of blood levels of vitamin D3 and Vitamin B12. History of exposure to sunlight, exercise, dietary habits, medication etc. was obtained through a Screening Questionnaire before blood collection. In second phase, treatment was advised for three months including counselling for dietary modifications, increased sun exposure, etc. At the end of three months, repeat testing of Vitamins was done to assess the effectiveness. Results 17.67% had vitamin B12 deficiency, 17.33% had vitamin D3 deficiency. Deficient vitamin B12 values were found in 53 subjects of which 61.5% were vegetarians, 39.5% non-vegetarians and 30.18% were having alcohol consumption. Deficient vitamin D3 values were found in 52 subjects of which 92% do not spend at least 10 min a day in sun without sunscreen. In second phase 51.62% had normal Vitamin D3 levels as compared to 8.33% in first phase and 92.95% had vitamin B12 levels normal in second phase as compared to 77.1% in first phase. Conclusion Effectiveness of oral supplementation of B12/D3 is demonstrated by the results of the second phase of the survey. Increase in sun exposure, dietary modification and other lifestyle modifications were also effective. Office executives need to exercise outdoors and thus increase their exposure to sunlight to facilitate vitamin D absorption. Vitamin B12/D3 tests to be made a part of annual medical check up.

138 MUSCULOSKELETAL DISORDER AMONG THE GARMENT WORKERS: A MAJOR WORK RELATED HEALTH PROBLEM IN A LEADING GARMENT INDUSTRY OF BANGLADESH

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Background and objectives Work related musculoskeletal disorders (MSD) accounts for a significant share of post-workday injuries and illnesses and hence constitute a major proportion temporary or permanent disability among garment industry workers in many countries. Bangladesh is now one of the world’s leading clothing exporters, and the garment industry employs more than 3.6 million workers in its 4500 factories. However, musculoskeletal disorders become a major health problem for seeking health care and an important cause for absenteeism which is a major concern among owners of the factories and policy makers.

The aim of this study was to estimate the magnitude of musculoskeletal disorders among workers in a large garment industry in Bangladesh.

Methodologies Review of 34 264 records of patients attended the outpatient department of the health care centre of the selected garment industry during April 2015 to April 2016 has been done to identify and compute the musculoskeletal disorders in order to calculate the proportion of MSD. A checklist was used to collect data from the outpatient registers.

Results More than 4500 workers are enrolled in the different sections of the selected garment industry. Out of the total 34 264 outpatient attendants, 8039 (23%) sought care for musculoskeletal disorders. On an average 25 MSD patients sought medical help for the management of their health problem. The incidence of MSD in the garment factory is 164.9 per 100 worker years. Of the total patients, 49 cases were referred to the higher level of hospital.

Conclusion Work related MSD is a major health problem among garment workers in Bangladesh, which might cause a significant absenteeism in the work. It is important to identify appropriate intervention including improvement of working environment to prevent MSD among garment workers to sustain the pace of development in this sector.