

Methods To determine the biological age, the method of V.P. Voitenko, in which the indicator of biological age is compared with the value of the proper biological age, calculated by the formula using the calendar age of the subject. The number of respondents was 300 workers of mines of the following professions: 80 tunnellers, 50 drillers, 50 electrical fitters, 100 miners and 20 foremen.

Results The average biological age of workers, equal to 46.6 years, exceeded the proper biological age by 6 years (with an average work experience of 14.2 years) and was more than 10 years higher than the calendar age. This means that the aging of miners was more pronounced in comparison with the population standard of aging. It should be noted that the differences between the values of the calendar age and the proper biological age in miners increased with an increase in the calendar growth, which indicates that the rate of aging in miners was most pronounced in middle and older age.

Conclusion The average biological age of miners, equal to 45.6 years, exceeded the proper biological age by 5 years (with an average work experience of 14.5 years) and was 9 years higher than their calendar age.

P-454 LOW BACK PAIN IN THE CARE SETTING: STUDY AMONG 300 HEALTHCARE STAFF FROM TWO UNIVERSITY HOSPITAL IN TUNISIA

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10.1136/OEM-2021-EPI.335

Introduction Low back pain (LBP) is one of the leading musculoskeletal disorders and it is a disabling occupational hazard. It is also a common cause of morbidity among the healthcare staff within were more vulnerable to LBP.

Objectives This study aimed to assess prevalence of LBP among healthcare staff and identify the socio-occupational hazards of this morbidity.

Methods This is a cross-sectional study, carried out over 14 months, with 300 healthcare staff from two university hospitals in Tunisian center. It is based on an analysis of socio-occupational profile, the assessment of the Work Ability Index (WAI), the Nordic musculoskeletal questionnaire as well as assessment tests of physical condition and flexibility of the spine (hand-floor distance; sit-stand test; balance test)

Results The sex ratio of the sample was 1.06, the average age was 42.64 ± 11.65 . 20% of the healthcare staff in the sample had a BMI larger than 30 and 51.9% of them did not practice any regular sports activity. The perceived physical workload was considered « heavy » by 41.6% of the staff questioned. 75% of the healthcare staff in the sample had a good to excellent work ability according to the WAI. Over the 12 months preceding the survey, two third of the healthcare staff in the sample complained of LBP, with pain assessed as 'severe' or 'extremely severe' in 54.4% of cases. The LBP was statistically correlated with female gender ($p=0.01$) and with impaired work ability ($p<10^{-3}$). The average finger-ground distance was 7.10 ± 7.5 cm and it was statistically correlated with LBP ($p=0.05$), with age ($p<10^{-3}$), with seniority ($p<10^{-3}$) and with a BMI ≥ 25 ($p=10^{-3}$).

Conclusion LBP persists as a real health problem among healthcare staff with heavy professional and social

repercussions. Reducing their prevalence and impact is based on improving working conditions and multidisciplinary care.

P-455 ASSESSING QUALITY OF LIFE, PRODUCTIVITY LOSS AND ACTIVITY IMPAIRMENT IN ASTHMA

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10.1136/OEM-2021-EPI.336

Background Asthma can be associated with substantial quality of life (QoL) alteration, productivity loss and activity impairment. We sought to assess the quality of life and the performance characteristics of an asthma-specific adaptation of the Work Productivity and Activity Impairment Questionnaire (WPAI:Asthma) in Tunisian young and active patients with asthma

Patients and Methods A prospective study was carried out during a year in active asthmatic patients, aged less than 65 years and consulting in the pulmonology department of a public hospital in central region of Tunisia. The WPAI:Asthma was administered to assess productivity loss. Asthma Quality-of-Life Questionnaire (AQLQ) in its validated arabic version was used to assess the QoL.

Results One hundred and one patients were enrolled in this study. Patients had a mean age of 44.2 ± 13.2 years and were predominantly female (66.3%). The mean job tenure was 7.3 ± 7.7 years. Workers belonged to the textile sector in 29.3% of cases. Asthma was allergic in 84.2% of cases and occupational in 18.2%. Asthma was uncontrolled in 62.4% and worsened at work in 71.3%. The mean AQLQ score was 5.08 ± 1.2 . This score was statistically correlated with the occupational etiology ($p=0.001$), the worsening of asthma symptoms at work ($p=0.016$), the absence of professional reclassification ($p=0.002$), the severity asthmatic disease ($p=0.001$) and uncontrolled asthma ($p=0.001$). Absenteeism was $4.2 \pm 14.6\%$ while presenteeism was $33.1 \pm 25.9\%$. The resulting loss of productivity was $30.4 \pm 22.2\%$. Activity impairment was statistically correlated with female gender ($p=0.02$), alcohol consumption ($p=0.001$), occupational etiology ($p=0.03$) and uncontrolled asthma ($p=0.001$).

Conclusion This study revealed significant levels of activity impairment and QoL alteration among active and young patients suffering from asthma. Improving asthma control, working condition and mental health may be important targets for enhancing workplace productivity in asthma. Presenteeism, absenteeism and productivity loss may represent key metrics to assess intervention effectiveness in active and young patients.

P-457 WORK ORGANIZATION AS A PREVENTIVE FACTOR OF WORK-RELATED LOW BACK PAIN IN TUNISIAN CRAFTSMEN

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10.1136/OEM-2021-EPI.337

Introduction Work-related low back pain (WRLBP) is a complex phenomenon accounting for a high proportion of