NATIONAL EPIDEMIOLOGIC PROFILE OF UPPER LIMB MUSCULOSKELETAL DISORDERS IN THE TUNISIAN WORKFORCE AND PREDICTIONS FOR 2026.

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Introduction Upper limb Musculoskeletal disorders (UL-MSDs) in occupationally active populations represent an important health issue that affect millions of people worldwide. They lead to high healthcare costs and represent a significant burden to the national economy.

Objectives To assess the incidence of UL- MSDs in the industrial private sector since 2000 and to determine projection for 2026.

Methods Using a national retrospective study that concerned all the Occupational MSDs reported to the Tunisian National Health Insurance Fund, in all industrial private sectors from January 2000 to May 2018, we gathered all the medical and administrative data available.

Results Six thousand and forty-two cases of UL-MSDs were totaled. Most of the declared occupational UL-MSDs were those of female workers (sex ratio=0.15). Moreover, the present study showed a young age of declaration of MSDs (44 ± 7.5 years). The most common industrial sector affected was in textile manufacturing (63.9%). Mono-site MSDs were significantly more prevalent in almost all the industrial sectors. Central district had a significantly higher yearly number of cases than the two others (p<10 -3). The study showed that approximately 71% of all initial medical certificates were reported by occupational health physicians graduated in Occupational Medicine. Seventy-two percent of these declarations were accepted by the recognition committee (p=0.007). In 2026, it is expected to count 2,626 new occupational declared UL-MSDs, with a crude prevalence in female workers 27 times as high as in male workers. The textile and clothing manufacture will remain the main affected sector by the UL-MSDs till 2026.

Conclusion The risk of UL-MSDs in the Tunisian private sector workforce is considerable; it requires the implementation of rapid ergonomic preventive measures in the next decade. Further biomechanical and psycho-organizational studies of the most at-risk workstations in the Tunisian clothing industry are key to preventing these occupational disorders.

WORKPLACE STUDY OF A LOADING AND UNLOADING AUTOCLAVE WORKSTATION IN THE STERILIZATION UNIT OF THE UNIVERSITY HOSPITAL OF MONASTIR-TUNISIA.

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Introduction In sterilization units, autoclaves are commonly used to guarantee equipment asepsis in sensitive environment. They should be loaded many times a day to guarantee the continuity of medical activity.

Objectives At the behest of the hygiene department boss, following autoclave health workers complaints about low back and upper limb pain, we carried out an analysis of the activity in order to identify the main occupational risk factors and propose consequent ergonomic recommendations.

Methods We proceeded to activity analysis based on observation method and operators' interviews. We finally assessed the autoclave loading and unloading lumbar and musculoskeletal disorders (MSD) risks respectively through NIOSH and Ergorom analyses.

Results For the autoclave loading station, carrying of weight loads ranged from 5 to 40 kg. The NIOSH recommended load limit ranged from 2.0 to 11.8 kg in the autoclave loading station, and from 1.4 to 11.4 kg in the unloading station with a risk of low back pain of 4% for men and 15% for women. As for upper limb MSD, Ergorom analyses proved a high risk of tendonitis of the rotator cuff (dominant shoulder in flexion or abduction> 60 ° in isometry or with heavy load bearing) and of elbow due to a 60 to 100° flexion/contraction over 73% of the working time. For the unloading station, there was an overall risk related to the hand grip. The risk of tendonitis of both elbows was related to a 60 to 100° prolonged flexion over 85% of the working time.

Conclusion In the light of the obtained results, in order to avoid MSDs and low back pain in healthcare technicians of the autoclave in the sterilization unit, we recommended the handling load of material to sterilize should be limited to 11 kg and the use of the trolleys preferably with adjustable height and with dynamic racks.

INFLUENCE OF ORGANIZATIONAL JOB CHARACTERISTICS ON NURSES' OCCUPATIONAL WELLBEING.

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Introduction Nurses' well-being has become a point of interest due to their stressful environment and consequent possible burnout.

Objectives to assess the influence of Tunisian nurses' job perception on their occupational well-being and to identify its main determinants.

Methods Our exploratory survey of job perception included an ergonomic chronological observation of 55 workstations in Monastir and Mahdia university hospitals in order to evaluate workload factors. The choice of the observed positions was based on the type of care department, nurse age and gender. Nurses' occupational well-being determinants were identified through a questionnaire driven by the Karasek and satisfaction scales.

Results The analysis of nurse job strain has shown that direct care requiring higher cognitive demands represents 27.26% of the total working time while administrative activities represent a higher proportion of nursing work. Furthermore, painful postures and movements were observed during about 20% of working time. Standing posture was adopted during 58.22% of the total working time, while sitting position was adopted only for a quarter (26.6%) of it.

Subjective perceived workload of occupational well-being was found to be higherthan on the day of activity observation. However, 69.1% of nurses felt stressed at work with a lack of autonomy and a lot of routine. They also reported to