OCCUPATIONAL DISEASE DETECTION IN EXPOSURE BASED HEALTH EXAMINATIONS

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INTRODUCTION

Occupational diseases (OD) are under diagnosed and under detected worldwide.

The detection of ODs is a global challenge, even in countries with statutory exposure-based health examinations (EBHE) for workers.

The construction industry harbours many exposure factors: noise, dusts, chemicals, vibration.

Regardless of country, construction industry is amongst the top of the OD statistics.

In Finland, the national guidelines for the EBHE were recently updated and the role of screening questionnaires was emphasized.

We aimed to assess how improvements in the EBHE process, with screening questionnaires and utilization of structured medical records, affected the number and type of suspected ODs detected in construction workers in a pilot unit.

The updated practice of EBHE

The nationally recommended screening questionnaires were compiled into a suitable set for the construction industry

The medical record entries were reformed and written into a structured template.

The structured documentation guided nurses and physicians to systematically ask and record the work history, exposure and work-related symptoms

The occupational nurses and physicians participated in additional training concerning the renewed process and exposures in the constructure industry

METHODS

We retrospectively studied the medical records of 103 construction workers' EBHEs conducted in an occupational health care unit, where EBHE process had updated in line with national recommendation.

The effectiveness of the screening was evaluated by comparing the relative number of suspected ODs found in this updated practice to the national OD statistics.

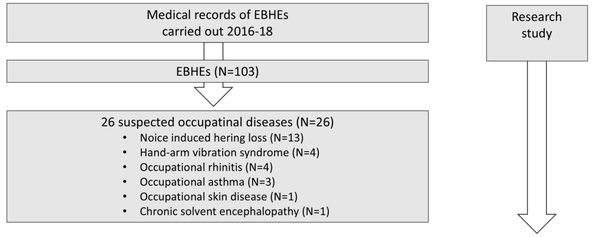
RESULTS

Out of the 103 cases reviewed, the updated practice detected 26 suspected ODs in 20 workers.

This corresponds to approximately 2500 cases per 10,000 employees. This is significantly more than the national OD statistics would indicate ($p<0.0001$).

One-half, 13 of the identified suspected ODs, were noise-induced hearing loss (NIHL), which were detected by audiogram examination. From the other-half, nine cases of 13 (69%) suspected ODs were detected with screening questionnaires.

In 2018 (corresponding to the study period) 35 cases of ODs or suspected ODs per 10,000 employees were recorded in the construction industry in Finland. The most common ODs and suspicions of ODs thereof in the field in 2018 were noise injuries, occupational asthma and occupational skin diseases.



CONCLUSION

- Development of the EBHEs can improve the identification of ODs even in countries that already have statutory medical surveillance for exposed workers.
- The screening questionnaires and the structured documentation are an affordable and applicable tools for OD screening in occupational health services and also in primary health care.
- Training in occupational medicine and knowledge of occupational exposure assessment will improve the detecting and early diagnosing of ODs and this is generalisable globally to occupational health physicians, general practitioners and physicians in other specialties.
- This study showed that statutory occupational health care process: exposure-based health surveillance and earlier detecting of ODs and work-related illness can be developed to be more effective and functional in the construction industry and in the other exposed sectors.

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