



Commentary

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Notification of occupational disease and risk of work disability - authors' response to commentaries

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Notification of occupational disease and risk of work disability – authors' response to commentaries

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Poul Frost and colleagues (1) argue that the excess work disability that we observed following notification of occupational disease is small and reassuring indicating no need for major concern. We agree with respect to patients who are not at work when notified because for them we observed no increased risk of subsequent work disability.

For patients, who were at work when notified, we do not agree however. For them, we observed a hazard ratio of 1.46 [95% confidence interval (95% CI) 1.17–1.82] and a risk difference of 12.5% (risk notified - risk not notified = 48.1% - 35.6%) (2). Whether an absolute risk of 12.5% is small or not depends on the comparison.

One example among many is Acheson and colleagues' seminal work on sinonasal adenocarcinoma in wood-dust-exposed Buckinghamshire furniture workers, a milestone in occupational epidemiology (3, 4). In a population of 5371, they observed 8 cases of sinonasal adenocarcinoma while the expected number was 0.06. This corresponds to a risk difference of 0.15% which is about 1/80 of that observed in our study. Had their findings been neglected because of arguments about low public health impact, we would have been denied information with immense impact on our understanding of carcinogenesis as well as the prevention of sinonasal cancer.

Another way of assessing the size of the problem is by estimating the excess number in the general population. Annually, about 18 000 patients are notified of occupational disease in Denmark. If we assume that 50% are at work when notified, as in our data, this means that 1125 patients are work-disabled annually due to notification if our findings represent a causal effect ($18\,000 \times 50\% \times 12.5\%$). This is in our opinion not a negligible number of patients even if it is expected to

represent a small fraction of all work-disabled patients as only about 0.6% of the workforce is notified annually. A low population-attributable fraction is generally seen in occupational medicine because of low population exposure prevalence (5).

The high prevalence of work disability in our study population indicates a multifactorial etiology that includes more and frequent causes than for sinonasal adenocarcinoma, but this should not inveigle us into neglecting individual risk factors that step by step may improve our understanding of the mechanisms behind work disability and furthermore may be amendable and thus targeted by preventive initiatives that can improve workers' health (6).

In our opinion, the major problem is thus not the magnitude of the effect we observed but how workers' compensation systems can implement our results, bearing in mind the methodological limitations of the study and the fact that this is a delicate topic in occupational health.

In a second commentary on our original research, Kuijjer and colleagues (7) argue – based on Dutch experiences – that our suggestions for changing worker's compensation might be counterproductive for preventing work disability. They refer to a national survey showing that patients who presumed that their disease was work-related and who were not notified had longer sick leave. In our opinion, this indicates that patients' perception of work-relatedness may be an important confounder when studying the effect of notification. Because all patients included in our study were referred to our occupational medicine department explicitly because their health problems were presumed to be work-related this should, however, not have confounded our results. By the same

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token, the side-effect of notification that we observed should add on top of the effect associated with the mere presumption of work-relatedness.

Kuijjer and colleagues recommend a randomized, controlled intervention study as more appropriate than our observational design. We agree that this would have addressed the key problem of higher levels of clinical, occupational, and social characteristics, which predict a poorer vocational prognosis, among the notified patients. However, this was and is not an option due to ethical and statutory reasons.

Kuijjer et al recommend that occupational physicians discuss the work-relatedness of the illness with their patients, make a timely diagnosis, and provide appropriate care and intervention at the workplace to prevent work disability. We fully agree, and this is the focus of our clinical as well as our scientific work (8–10) as it should be for any occupational physician regardless of whether the patient's disease is caused by the occupation or not, or whether the patient is notified to the compensation board or not. Our data suggest that the latter may be an important predictor of work disability.

Conflicts of interest

Lone Donbæk Jensen and Ane Marie Thulstrup prepare specialist's statements for the National Board of Industrial Injuries. Vivi Schlünssen is advisor for the labor union "HK Danmark" in notification issues. Jens Peter Bonde prepares expert testimonies concerning industrial injuries for the Medico-Legal Council.

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