

Work-related asthma from cleaning agents versus other agents

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The issue: work-related asthma

Work-related asthma (WRA) remains one of the most common occupational lung diseases, accounting for about 16% of all adult-onset asthma. In some cases the onset is a new condition resulting from workplace exposures. In other cases, pre-existing asthma is worsened by these exposures.

Cleaning products are the most commonly identified exposure causing WRA in healthcare and education workers. A variety of cleaning products have been associated with WRA.

However there is relatively little information in the medical literature on the clinical features of workers with WRA who have been exposed to cleaning agents at work.

The study:

Do workers with WRA who have been exposed to cleaning agents at work have unique socio-demographic and clinical features? To find out, we used a clinical database of 208 workers with WRA (seen between 2000 and 2015), and compared the individuals with a history of occupational exposure to cleaning agents vs. those with no history of occupational exposure to cleaning agents.

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Study results:

- **One in ten of the WRA cases were attributed to a variety of cleaning products exposures** (22 of the 208 cases). About half of these were diagnosed as occupational asthma (12 cases) and half were work-exacerbated asthma (10 cases).
- **The most frequent categories of exposures were surfactants, alcohols, disinfectants and acids.** There were multiple exposures and the responsible agent(s) could seldom be clearly identified.
- Compared to WRA from other exposures, those attributed to cleaning agents exposures had a **significantly larger proportion of females** (82% vs. 35%) and included **higher percentage of workers in healthcare** (41% vs. 4%). *These findings are consistent with the findings of a previous study that examined Workplace Safety and Insurance Board asthma claims. It found an increase in work-exacerbated asthma in healthcare workers.*
- **Workers with cleaning-related WRA were much more likely to submit workers' compensation claims**, compared to those with WRA from other causes (86% vs. 64%).
- **The clinical characteristics of those with cleaning-related WRA were similar to those with WRA from other causes.**

