

Success in Reducing Work-Related Asthma

At 7:00 am on February 20, 2003, a vehicle detailing shop manager began spraying an isocyanate-based truck bed liner on the floor and up the sides of the interior of a cargo van. When a co-worker came to assist, he found the manager outside on his knees gasping for breath with a respirator hanging around his neck. The co-worker drove the manager to a nearby urgent care medical clinic, where the manager lost consciousness and stopped breathing. Resuscitation efforts by medical personnel were not successful. In retrospect, co-workers noted that he'd had breathing difficulties when applying the bed liner in the past and had been taking asthma medication.



Truck bed liner 2-component formula used for spraying cargo van interior.

The Challenge

Consensus from expert medical committees is that 40% of adults with asthma have work-related asthma (exposures at work causing new asthma in 15% of cases and aggravating pre-existing asthma in another 25%). By substituting agents used, improving ventilation controls and/or changing work practices, work-related asthma is potentially preventable. Early diagnosis and removal from exposure can reduce morbidity and mortality in those who develop work-related asthma.

The Response

Michigan employs a multi-pronged approach to reduce morbidity and mortality from work-related asthma. This includes activity to increase awareness among employers (Michigan OSHA inspections, consultations and educational campaigns), healthcare providers (talks, display booths at medical conferences and a quarterly newsletter), the public and workers (information on the State's general asthma website, brochures, and talks at conferences).

The Impact

The most common cause of work-related asthma in Michigan has been exposure to isocyanates. The number of reported cases of work-related asthma from isocyanates has dropped from 30 in 1990 to two in 2013. There has not been an isocyanate asthma death since 2005. The number of reported cases of work-related asthma from metal working fluids, the third most common cause of work-related asthma in Michigan, has dropped from 32 in 1992 to four in 2013.

For more information, visit the Michigan State University Occupational and Environmental Health website:

<http://www.oem.msu.edu/userfiles/file/Annual%20Reports/Asthma/2012WRAANNRPT.pdf>

<http://www.oem.msu.edu/userfiles/file/News/v26n1.pdf>

“Given the frequency of work-related causes and exacerbations of adult asthma, it is discouraging to review medical records of patients with asthma where the physician had either not considered what kind of work their patient was doing or had not addressed work triggers until the patient expressed repeated concerns about their work. We've been working hard to educate physicians on the importance of work exposures among adult patients with asthma.”

-Dr. Ken Rosenman, MSU