SENSOR Occupational Lung Disease Bulletin

A project of the Massachusetts Department of Public Health's Occupational Health Surveillance Program,
the Massachusetts Thoracic Society, and the Massachusetts Allergy Society

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Dear Health Care Provider:

In this issue of the *Occupational Lung Disease Bulletin*, we include a summary of a recent study of work-related asthma among members of a Massachusetts HMO. In this study the authors define "asthma attributable to occupational exposures" to include new onset of asthma induced by exposure to irritants as well as sensitizers, and new onset of clinically significant symptoms in people with quiescent asthma who have been free of a need for significant asthma medications for a year. In a recent editorial, Wagner and Wegman* point out that this broad concept of work-related asthma has important implications for prevention. "While sensitizer-induced asthma is the best known cause of occupational asthma, prevention of occupational asthma should not be limited to considerations of initial sensitization alone. Rather, it is essential to see the much larger goal of preventing all acute and chronic asthma-related conditions in all workers potentially at risk."

This broad definition of "asthma attributable to occupational exposures" is consistent with the guidelines for reporting work-related asthma in Massachusetts. The guidelines specify reporting of all individuals with a physician's diagnosis of asthma who have symptoms related to work. These include not only individuals with new onset asthma caused by workplace exposures but individuals with pre-existing asthma exacerbated by exposures at work.

We appreciate your efforts in reporting these cases to the Department. Milton et al point out the benefits of early diagnosis and treatment for the individual affected. Reporting cases to the surveillance system can benefit the population at large as it helps provide the information necessary to target primary prevention efforts.

Sincerely,

Elise Pechter Morse MPH, CIH
Industrial Hygienist
Occupational Asthma Surveillance Project

* *Wagner GR and Wegman DH. Occupational Asthma: Prevention by Definition. Am J Ind Med 33:427-429 (1998)*

Risk and Incidence of Asthma Attributable to Occupational Exposures Among HMO Members

Estimates of the annual incidence of occupational asthma have ranged from 0.9 to 15 cases per 100,000 adults based on surveillance data. Findings from a recent study of a community-based HMO population suggest that the incidence may be much higher and that physicians often fail to ask the questions necessary to assess whether asthma may be work-related.

Milton et al. conducted a study of 79,204 HMO members between the ages 15 and 55 at risk of asthma, following them for a three month period. Computerized files, medical records and telephone interviews were used to identify and characterize asthma cases. Evidence for work causation was determined from work-related symptoms and work histories which were evaluated independently by two industrial hygienists who rated potential exposures to sensitizers and irritants.

The authors identified 74 persons with onset of clinically significant asthma during the study period. These included persons with new onset asthma and persons with mild asthma who had not required treatment in the previous 12 months. The annual incidence rate of clinically significant asthma was 1.3/1,000 increasing to 3.7/1,000 when cases of reactivation of previously quiescent asthma were included.

Of the 66 asthma cases who were interviewed, 14 (21%) had moderate to strong evidence that asthma was attributable to occupational exposures giving an incidence rate for work-related asthma of 71 per 100,000. Three of these cases were individuals who developed Reactive Airways Dysfunction Syndrome (RADS) - with symptoms following high level exposures to irritants in the workplace. None of these 14 cases had been diagnosed by their treating physicians as having occupational asthma nor were services billed to workers' compensation.

REPORT JUNE AND JULY CASES NOW

By July 31st, report all occupational lung disease cases seen for the first time in June and July, 1998. If you have NOT seen any cases, it is not necessary to return the report form.

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SENSOR: *Sentinel Event Notification System for Occupational Risk. Massachusetts SENSOR is funded by the National Institute for Occupational Safety and Health.*

Based on chart reviews of 67 asthma cases, the authors found that physicians had documented asking about work-related symptoms in only 10 (15%) of the cases. Pulmonologists and allergists were much more likely to ask about workplace triggers than other physicians. In only 2 of the 14 cases that the authors identified as likely attributable to occupational exposure, had the treating physicians asked about work.

Physicians used physiologic testing sparingly; of the 67 cases seven had peak expiratory flows, seven underwent spirometry (including five with response to bronchodilator) and none had methacholine challenge testing.

The study population included eighteen subjects between the ages of 15 and 18, most of whom were employed at the time of interview.

The authors conclude that the incidence of asthma attributable to occupational exposures is significantly higher than previously reported and accounts for a sizable proportion of adult-onset asthma. Given that approximately 20% of adult onset asthma cases may be work-related, failure to diagnose these cases and bill workers' compensation implies a significant loss of revenue to the HMO. More importantly, prompt diagnosis is essential because early cessation of exposure and early anti-inflammatory treatment may improve the prognosis of occupational asthma.

The complete article "Risk and Incidence of Asthma Attributable to Occupational Exposures Among HMO members" by DK Milton, GM Solomon, RA Rosiello and RF Herrick, can be found in the American Journal of Industrial Medicine 33:1-10 (1998).

NE Regional Latex Allergy Symposium

The Massachusetts Nurses Association is sponsoring a NE Regional Latex Allergy Symposium in conjunction with the Massachusetts Dental Society, Massachusetts Medical Society, Massachusetts Department of Public Health, Massachusetts Emergency Nurses Association and New Hampshire Electrolysis Association. The program is scheduled for:

September 16, 1998
8:00am - 4:30pm
& Dinner Lecture - Legal Aspects
6:00pm - 8:30pm
Merrimack Hotel & Conference Center
Merrimack, NH

For more information regarding registration, continuing education and directions or to obtain a brochure, contact Susan Clish at the Massachusetts Nurses Association at (781) 830-5723. There is a 10% discount for registrations received prior to August 25, 1998.

Number of Lung Disease Cases Reported to MA SENSOR, March 1992-May 1998

	April 1998	May 1998	Total to Date (3/92-5/98)
Asthma	2	8	604
Silicosis	0	0	10
Asbestosis	0	0	118
Chemical Pneumonitis	0	0	14
Total Number of Lung Disease Reports	2	8	746

OSHA INTRODUCES NEW RESPIRATORY PROTECTION STANDARD

OSHA revised its respiratory protection standard, effective April 8, 1998, affecting 1.3 million employers in general industry, construction, shipyards, longshoring and marine terminals. After 16 years under the old provisions, OSHA expects the new standard, 29CFR1910.139, to save 932 deaths from cancer and other chronic diseases each year, as well as prevent more than 4,000 injuries and illnesses, and save $94 million in related costs annually.

The new standard protects five million workers by requiring that employers implement respirator programs that provide the right respirator for the hazards encountered on the job and supervise their use. Elements required include:

- fit-test on each person annually
- medical evaluation for fitness to wear a respirator
- training each year about the use, maintenance and limitations of respirators
- hazard evaluation to characterize respiratory hazards and conditions of work
- written respirator program specific for the workplace
- tightening of requirements for respirators to be used in conditions that are immediately dangerous to life or health (IDLH), including firefighting.

The American College of Occupational and Environmental Medicine (ACOEM) submitted a petition to the US Court of Appeals, Seventh Circuit, requesting the court to set aside the provision which allows non-physicians to make medical evaluations without physician supervision.

The OSHA Respirator Standard may be accessed at:
http://www.osha-slc.gov/OshStd_data/1910_0134.html