



# Occupational Lung Disease Bulletin

Massachusetts Department of Public Health

Fall 2018

Dear Healthcare Provider,

*This is the first Occupational Lung Disease Bulletin (OLDB) distributed exclusively electronically. Paper copies of the OLDB will no longer be mailed, unless requested. Electronic distribution is made possible by collaboration within the Massachusetts Department of Public Health—Bureau of Health Professions Licensure, Board of Registration in Medicine, Office of Preparedness and Emergency Management and Bureau of Community Health and Prevention. Please share the OLDB with your colleagues.*

*The purpose of the OLDB is to enhance diagnosis and encourage the reporting of work-related lung diseases as mandated by Massachusetts Public Health Law, and to provide up-to-date information about work-related asthma (WRA) and other occupational lung diseases. These are essential components of a surveillance system that relies on the diagnostic capabilities and commitment of providers to their patients and to public health. Reported cases are used to describe the burden of work-related lung diseases, tell stories, help protect coworkers and promote prevention. This Fall 2018 OLDB summarizes a JOEM article recommending clinical decision support systems for WRA. This article was published November 2017 by Drs. Harber, Redlich, and Hines, and NIOSH representatives Filios and Dr. Storey, and is accessible online, as well as the background full report.*

[http://www.acoem.org/uploadedFiles/Public\\_Affairs/Policies\\_And\\_Position\\_Statements/Guidelines/Library\\_and\\_Reference\\_Material/NIOSH%20Final%20Reports.pdf](http://www.acoem.org/uploadedFiles/Public_Affairs/Policies_And_Position_Statements/Guidelines/Library_and_Reference_Material/NIOSH%20Final%20Reports.pdf)

[https://journals.lww.com/joem/fulltext/2017/11000/Recommendations\\_for\\_a\\_Clinical\\_Decision\\_Support.22.aspx](https://journals.lww.com/joem/fulltext/2017/11000/Recommendations_for_a_Clinical_Decision_Support.22.aspx)

Sincerely,  
Elise Pechter  
Industrial Hygienist/Intervention Coordinator

*Remember to report cases of suspected work-related lung disease by mail, fax (617) 624-5696 or phone (617) 624-5632. The confidential reporting form is available on the Occupational Health Surveillance Program website at [www.mass.gov/dph/ohsp](http://www.mass.gov/dph/ohsp).*

*To request a paper copy, provide comments, or to contribute an article to the OLDB, please email [MDPH.OHSP@state.ma.us](mailto:MDPH.OHSP@state.ma.us)*

## Clinical Decision Support for Work-related Asthma in Primary Care Setting

### OVERVIEW

Asthma is common affecting 18.7 million adults aged 18 years and older in the U.S. Work related asthma (WRA) is defined as asthma caused or exacerbated by work. An estimated 17% of new-onset adult asthma cases are caused by workplace exposures. Regardless of cause, an estimated 22% of adults with asthma suffer work-related exacerbations. In Massachusetts, approximately 200,000 adults have WRA <https://www.mass.gov/work-related-asthma>.

Work-relatedness of asthma often goes unrecognized. Nearly half of ever-employed adults reported that work played a role in their asthma, yet fewer than one in five of those had a diagnosis of WRA.

### WRA SURVEILLANCE CLASSIFICATION

1. Work-aggravated asthma
2. New-onset asthma
  - a) Occupational asthma
  - b) Reactive airways dysfunction syndrome (RADS)

The Occupational Health Surveillance Program has summarized the most common occupations and exposures among those who have work related asthma in Massachusetts, identifying jobs in hospitals and other healthcare services, followed by manufacturing and police and fire departments. A data summary is here <https://www.mass.gov/files/documents/2016/07/vb/spring2015.pdf>

CDC's National Institute for Occupational Safety and Health (NIOSH) worked with subject matter experts convened by the American Thoracic Society to develop recommendations for a clinical decision support (CDS)

system for use in electronic health records, to include occupational information and enhance care and disease management of WRA. The relatively short latency and available exposure control methods make WRA an excellent candidate for linking prevention with clinical input. The experts focused on helping primary care clinicians recognize the *possibility* of WRA.



Patients with WRA are similar to adults with asthma unrelated to work in many ways—they need evaluation, pharmaceutical support and education. If the exposures that cause or exacerbate symptoms occur at work, then additional steps are needed. Patients may not realize work exposures are a problem; they may be afraid to identify work concerns, or their provider may be unfamiliar with occupational issues. These impediments may interfere with taking next steps, but they are crucial because delayed diagnosis and prolonged exposures may contribute to more severe asthma. Adults with WRA have more symptoms, use health care more and experience more limitations in activities compared to people with asthma that is not work-related.

A CDS tool should be developed that would support the recognition and management of WRA in primary care settings.

### OVERALL CLINICAL OBJECTIVE

Improve recognition / management of WRA in primary care settings for patients of working age with asthma

### STEPS

**Recommendation #1a:** Administer three WRA screening questions to all working age patients with new-onset or worsening asthma.

**IF:** Reason for visit:

Asthma (ICD9-493; ICD10-J45) that began within the last 2 years

**OR**

Patient had one or more emergency department (ED) or acute clinic visits or hospitalizations for asthma during the previous 2 years

**THEN:** Ask WRA screening questions:

Do/did your asthma symptoms start at your current/recent workplace?

Do/did your asthma symptoms worsen at work?

Are asthma symptoms different (e.g. better) on days off work and/or holidays?

**Recommendation #1b:** Evaluate diagnosis of asthma

**IF:** Patient responds yes to any of the 3 WRA screening questions

**THEN:** Clarify the diagnosis of asthma with spirometry

**Recommendation #1c:** Provide WRA tools to clinician and patient and encourage discussion

**IF:** Patient responds yes to any of the 3 screening questions AND patient has asthma

**THEN:** Document in EHR the discussion regarding the patient's work and respiratory symptoms

CDS systematizes other similar approaches, e.g. American College of Chest Physicians, that have been reported in an OLDB in 2008 <https://www.mass.gov/files/documents/2016/07/xh/dec08.pdf>



Further steps will include confirmation of diagnosis and appropriate management considering both clinical and workplace aspects. The latter may include workplace change and accommodation. OHSP, NIOSH and OSHA can provide assistance and resources.

### Reminder

Work-related asthma is a reportable condition in Massachusetts (105 CMR 300.180). Please remember to report all suspected cases of WRA and other work-related lung diseases to the Massachusetts Department of Public Health (DPH). The Work-related Asthma page has been updated on the DPH website. Reporting forms and Occupational Lung Disease Bulletins and other publications may be found at:

[www.mass.gov/how-to/report-an-occupational-disease-or-injury](http://www.mass.gov/how-to/report-an-occupational-disease-or-injury)  
<https://www.mass.gov/work-related-asthma>