Wisconsin Department of Health Services
Division of Public Health
P-02193 (07/2018)

Environmental and Occupational Disease Case Reporting and Investigation Protocol

ASBESTOSIS

I. IDENTIFICATION AND DEFINITION OF CASES

A. **Clinical Description**: Asbestosis is a type of pneumoconiosis caused by the inhalation of asbestos fibers. Occupational exposure is the most common source of exposure. High-risk occupations include plumbers, pipefitters, steamfitters, ship builders, and construction workers using asbestos insulation and other asbestos-based materials. Exposure can also occur through environmental exposure such as residence near an asbestos or vermiculite mine, or prolonged exposure to a contaminated area. Onset is generally insidious with cough and shortness of breath being the most common symptoms. Radiographic changes may precede symptom onset. Physical exam may initially be unremarkable; as disease progresses, basilar crackles or rales, especially at the end of inspiration, may develop along with other nonspecific signs of pulmonary dysfunction. Diagnosis is based on a history of asbestos exposure with evidence of asbestosis on chest radiograph. Histological confirmation is rarely necessary. Evidence of disease, either symptomatic or radiographic, occurs at least 10 years after exposure and more commonly 20-30 years after peak asbestos exposure. Progression of disease is variable and there are no specific treatments.

B. **Criteria for Diagnosis**:

- **Clinically compatible illness**
  - **Clinical:** A history of asbestos exposure prior to radiological or clinical evidence of disease. Insidious onset of dyspnea. Fine end-inspiratory crackles on exam. Restrictive pattern on pulmonary function testing.
  - **Radiologic**: Chest x-ray or high resolution CT imaging consistent with asbestosis.
  - **Pathologic:** Histology showing two or more asbestos bodies per square centimeter in association with interstitial pulmonary fibrosis.
- **Physician reported diagnosis**
- **Administrative data**

C. **Wisconsin Case Definition:**

- **Confirmed**: History of exposure to asbestos at least 10 years prior to onset of disease, **plus one of the following:**
  - Chest radiograph high resolution CT imaging consistent with asbestosis showing abnormalities interpreted as consistent with asbestosis.
  - Lung histopathology consistent with asbestosis.
- **Probable—one of the following**:
  - Death certificate record listing asbestosis or pneumoconiosis due to asbestos as an underlying or contributing cause of death.
  - Hospital discharge record listing asbestosis or pneumoconiosis due to asbestos as primary, secondary or other diagnosis**.**
  - Worker's compensation claim with a diagnosis of asbestosis or pneumoconiosis due to asbestos**.**
  - Health care professional's report of an individual diagnosed with asbestosis or pneumoconiosis due to asbestos.

II. REPORTING

A. **Wisconsin Disease Surveillance Category II – Methods for Reporting:** This disease shall be reported to the patient's local health officer or to the local health officer's designee within 72 hours of recognition of a case or suspected case, per Wis. Admin. Code § DHS 145.04 (3) (b). Report electronically through the Wisconsin Electronic Disease Surveillance System (WEDSS), or mail or fax a completed Acute and Communicable Disease Case Report (F-44151) to the address on the form.

B. **Responsibility for Reporting**: According to Wis. Admin. Code § DHS 145.04(1), persons licensed under Wis. Stat. ch. 441 or 448, laboratories, health care facilities, teachers, principals, or nurses serving a school or day

care center, and any person who knows or suspects that a person has a communicable disease identified in Appendix A

C. **Criteria for Reporting**:
- Clinical diagnosis of asbestosis
- Evidence of asbestosis on chest radiograph or CT scan
- Pathologic findings of asbestosis

III. CASE INVESTIGATION

A. **Responsibility for case investigation**: The Division of Public Health performs case investigations unless local health departments choose to conduct routine follow-up for all cases in their jurisdictions. A case investigation may include information collected by phone, in-person, in writing, or through review of medical records or disease report forms, as necessary and appropriate.

B. **Required Documentation:** WEDSS disease incident investigation report, including appropriate, disease-specific tabs.

IV. PUBLIC HEALTH INTERVENTIONS AND PREVENTION MEASURES

- Routine education to patients on prevention of asbestos exposure and surveillance following exposure.
- Workers working with asbestos should use appropriate personal protective equipment (PPE) and respiratory protection in accordance with National Institute for Occupational Safety and Health (NIOSH) guidelines. More information on asbestos and vermiculite is available on the NIOSH website. A fact sheet summarizing asbestos exposure regulations and PPE is available from the New Jersey Right to Know Program (English; Spanish version also available).
- Screening exams including imaging and/or pulmonary function testing in accordance with NIOSH guidelines for exposed workers.

V. CONTACTS FOR CONSULTATION

Bureau of Environmental and Occupational Health, 608-266-1120

VI. RELATED REFERENCES

A. Finnish Institute of Occupational Health. Asbestos, asbestosis, and cancer: Helsinki criteria for diagnosis and attribution 2014.

B. International Labour Office. Guidelines for the use of the ILO international classification of radiographs of pneumoconioses, revised edition. Geneva, 2011. Available at: http://www.ilo.org/wcmsp5/groups/public/---ed_protect/---protrav/---safework/documents/publication/wcms_168260.pdf

C. Occupational Safety and Health Administration (OSHA). Medical surveillance guidelines for asbestos – Non-mandatory. 1910.1001 App H. August 10, 1994. Accessed January 18, 2018. Available at: www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=10003.

D. O'Reilly, KMA, McLaughlin, AM, Beckett, WS, and Sime, PJ. Asbestos-related lung disease. *American Family Physician* 2007; 75: 683-90.

E. Texas Health and Human Services. Asbestosis and silicosis surveillance. Last updated April 24, 2017. Accessed January 18, 2018. Available at: www.dshs.texas.gov/epitox/Asbestosis-and-Silicosis-Surveillance/

F. Wagner, GR. Asbestosis and silicosis. *Lancet* 1997; 349: 1311-15.