



STATE OF WASHINGTON
DEPARTMENT OF LABOR AND INDUSTRIES

Safety and Health Assessment and Research for Prevention Program
Promoting Safer, Healthier, Workplaces

August 19, 2013

Dear Health Care Provider,

If you see a worker with respiratory disease from exposure to hops dust, please give me a call at (360) 902-5664, or e-mail me at david.bonauto@Lni.wa.gov.

We seek your help in learning more about respiratory disease associated with exposure to hops dust during the harvest and hops processing. From 1995 – 2012, over 57 workers compensation claims have been submitted to L&I for workers exposed to hops dust. The following physician diagnosed respiratory diseases were associated with those claims: allergic rhinitis, asthma, chronic obstructive disease, acute bronchospasm, as well as assignment of various respiratory symptoms to hops exposure. Exposure to hops was also linked to dermal symptoms.

Surprisingly, there are few published peer-review reports of occupational respiratory illness related to hops exposure. We are asking for your assistance in gaining a better understanding of hops related respiratory disease by pursuing additional medical evaluation of workers with hops-related respiratory diseases. Consider the following information to help you evaluate workers with hops exposure and respiratory complaints.

Medical History: While completing a comprehensive medical history, special attention to the occupational history of the patient is essential. The timing of when the worker is exposed to hops and the development of respiratory symptoms is a critical piece of the history. Hops harvesting and production can expose workers to dust, pollens, endotoxins and other plant materials linked specifically to hops and/or from exposures to other plant species. Obtaining medical information on previous employment, current job title, current work activities, the presence and duration of symptoms (e.g. wheezing, cough, shortness of breath, chest tightness, eye and throat irritation, nasal congestion, rhinorrhea, dermal symptoms) in relation to specific work activities, when symptoms begin (immediately after starting work, hours after starting work and whether symptoms continue after work), whether symptoms get better on weekends or on vacation, and the relationship between symptoms and non-work activities will clarify causality. Identify additional risk factors for respiratory disease such as smoking status and number of pack years, a history of symptoms preceding work exposure, atopic status including seasonal nasal or eye symptoms, and if there is a family history of atopic disease.

Medical Evaluation: Referral to a specialist in evaluating occupational, allergic, or respiratory diseases may be appropriate. Skin, eye, nasal and pulmonary physical exam findings correlated to exposure and the absence of exposure are helpful. CBC with differential and eosinophil count may suggest an allergic etiology. Chest X-rays will assist in evaluating for infection, tumor or other pulmonary pathology. Generally, sensitization to hops may be confirmed by skin prick testing to hops antigen or submission of serum for hops IgE. Documenting sensitization to other environmental antigens is useful.

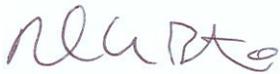
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For workers currently symptomatic with lower respiratory tract symptoms, spirometry may demonstrate obstruction or restriction. For obstructive disease, conduct additional spirometry with a bronchodilator to evaluate for variable airflow obstruction. For asymptomatic workers, a histamine or methacholine challenge test may be appropriate to demonstrate non-specific bronchial hyperresponsiveness (NSBH). If the worker has variable obstruction on spirometry or has NSBH, evaluating the workers symptoms in relation to work is optimal. Two testing approaches may be useful: serial peak flow monitoring and serial testing for NSBH. These are best conducted under the guidance of those familiar with the testing algorithm and test interpretation.

Please feel free to contact me if you have any information related to a suspected case of hops associated respiratory disease or if you would like more information regarding diagnosis or evaluation of occupational respiratory diseases. Under Washington State Administrative Code 246-101, suspected cases of work-related asthma are reportable to SHARP.

The link below provides instructions on how to submit a work-related asthma case report:
<http://www.lni.wa.gov/Safety/Research/OccHealth/Asthma/ReportAsthma/default.asp#SubmittingCaseReports>

Sincerely,



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