



April 7, 2017

Boston Public Health Commission Massachusetts Department of Public Health

Health Alert: Shiga toxin-producing *E. coli*

Summary: Over the past three days, there have been five confirmed cases of Shiga toxin-producing *E.coli* (STEC) reported in Boston residents. An additional five non-Boston cases have been identified over the past two weeks by the Massachusetts Department of Public Health (MDPH) and local health departments in surrounding Massachusetts towns. The Boston Public Health Commission's (BPHC) Infectious Disease Bureau (IDB) and the Boston Inspectional Services Department (ISD) are investigating cases in Boston residents in collaboration with the MDPH Bureau of Infectious Disease and Laboratory Sciences (BIDLS). Investigations include case interviews for risk factors, clinical findings, and case confirmation for surveillance purposes. Healthcare providers in Boston are reminded that all cases of *STEC* and any outbreak of illness must be reported to the Boston Public Health Commission at (617) 534-5611. All cases in non-Boston residents should be reported immediately to MDPH at (617) 983-6800.

SYMPTOMS AND DIAGNOSIS: Shiga toxin-producing *E.coli* (STEC) illness is characterized by severe stomach cramps, diarrhea (often bloody), and vomiting. Symptoms usually begin 3-4 days after exposure and last about 5-7 days. Transmission occurs when someone ingests STEC. STEC may be found in contaminated food, unpasteurized (raw) milk, or contaminated water. Contaminated raw fruits and vegetables (such as sprouts) have also been linked to STEC outbreaks. Contact with cattle or contact with the feces of an infected person also pose a risk. Some infections are very mild, but others are severe or even life-threatening. People of any age can become infected; however, very young children and the elderly are more likely than others to develop severe illness and hemolytic uremic syndrome (HUS), a potentially life-threatening kidney condition.

STEC infections are diagnosed through laboratory testing of stool specimens. Any clusters of illness in Boston (whether or not an etiologic agent has been identified) must be reported to BPHC. Any clusters of illness outside Boston must be reported to the local board of health or MDPH.

PREVENTION: Healthcare providers should emphasize hand hygiene using soap and water or alcohol based hand sanitizers to prevent transmission of infection. People should also be

advised to cook meats thoroughly and to avoid raw milk, unpasteurized dairy products, and unpasteurized juices. Ill persons should be advised to stay home and increase fluid intake to prevent dehydration until their symptoms have resolved. There is no evidence that treatment with antibiotics is helpful, and taking antibiotics may increase the risk of HUS.

In addition, state regulations require that food handlers (including healthcare providers who perform services that bring them into contact with patients' mouths, e.g. administer oral medication, etc.) refrain from work until they no longer have diarrhea and two lab tests confirm they no longer are infected with STEC. Any persons experiencing diarrhea or vomiting should refrain from preparing food for others until at least 72 hours after symptoms resolve.

Any area contaminated by feces or vomitus should be cleaned thoroughly to reduce the potential for transmission of food borne pathogens. The EPA has a comprehensive list (List G) of recommended products for disinfecting surfaces. The list can be found [here](#). Wearing masks (disposable surgical masks) should be considered for persons who clean areas substantially contaminated by feces or vomitus.

REPORTING: City and state regulations require that healthcare providers and institutions report any case of food poisoning diagnosed in Boston to BPHC. Any outbreak or cluster of illness is also reportable. Laboratories in Boston must report the result of any laboratory test positive for Shiga toxin-producing organisms to BPHC. Cases diagnosed outside Boston should be reported to the local board of health where the diagnosis is made or to MDPH BIDLS (Phone: 617-983-6800, epidemiologists available 24/7).

Reporting forms for healthcare providers and for laboratories are available at: <http://www.bphc.org/cdc>

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