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NH-HAN 20160727



***Escherichia coli* O157:H7 Outbreak Associated with Ground Beef**

Key Points and Recommendations:

1. The New Hampshire Division of Public Health Services (NH DPHS) has identified an outbreak of *E. coli* O157:H7 infections associated with consumption of locally sourced New Hampshire ground beef.
2. The United States Department of Agriculture (USDA) has issued a recall and consumers are advised not to eat the beef listed in the recall notice:
<http://www.fsis.usda.gov/wps/portal/fsis/topics/recalls-and-public-health-alerts/current-recalls-and-alerts>
3. Patients with consistent clinical features should have stools submitted to culture for *E. coli* O157:H7 and test for production of the Shiga toxin.
4. Patients with Shiga toxin-positive diarrheal illness or hemolytic uremic syndrome (HUS) should be reported to NH DPHS at 603-271-4496 (after hours 603-271-5300) and the stool sample sent to the NH Public Health Laboratories for additional testing.

Background

Since June 2016, 14 people have been infected with the same strain of Shiga toxin-producing *Escherichia coli* O157:H7 after consuming locally sourced ground beef from a New Hampshire meat processing plant. These individuals became ill between June 17 and July 16, 2016 after consuming ground beef at a number of different locations. Among the 14 cases, 5 hospitalizations, one case of hemolytic uremic syndrome (HUS), and no deaths have been reported. The potentially contaminated raw beef has been recalled by the USDA and we are advising consumers not to consume the beef due to possible *E. coli* O157:H7 contamination. A list of the recalled products from the PT Farm's meat processing plant is available on the USDA website. The specific retail locations where the beef was distributed are expected to be posted as well in the coming days:

<http://www.fsis.usda.gov/wps/portal/fsis/topics/recalls-and-public-health-alerts/current-recalls-and-alerts>

Clinical Information

Symptoms of Shiga toxin-producing *E. coli* (STEC) infection include severe abdominal cramps, vomiting, and either watery or bloody diarrhea. Often there is not a fever. Most people develop symptoms within 3-4 days after exposure, but symptoms can develop up to 10 days after exposure. About 5-10% of individuals diagnosed with STEC infections develop hemolytic uremic syndrome (HUS); children younger than 5 years of age and the elderly are at higher risk. HUS is a microangiopathic hemolytic anemia that can lead to acute renal failure, and even death.

Treatment for STEC infections is supportive, and antibiotics are contraindicated because they can cause increased expression and release of bacterial Shiga toxin leading to medical complications and HUS.

Infection can be prevented by following food safety best practices, including thoroughly cooking ground beef to at least an internal temperature of 160°F, using a thermometer to validate, and preventing cross contamination during food preparation by thoroughly washing hands, counters, cutting boards, and utensils after they touch raw meat.

Testing

To ensure detection and complete characterization of STEC infections we recommend:

- Stools should be cultured for STEC O157:H7 and also tested for the presence of the Shiga toxin or the genes encoding these toxins (these tests can detect non-O157 STEC strains).
- All *E. coli* O157:H7 isolates and Shiga toxin-positive samples should be sent to the NH Public Health Laboratories for additional characterization

Reporting Cases:

Clinicians should report suspected and confirmed cases of Shiga toxin-producing *E. coli* infection to the NH DPHS Bureau of Infectious Disease Control at 603-271-4496 (after hours 603-271-5300).

Additional Information:

<http://www.cdc.gov/ecoli/general/index.html#what-are-shiga-toxin>

<http://www.cdc.gov/ecoli/clinicians.html>

For any questions regarding the contents of this message, please contact NH DHHS, DPHS, Bureau of Infectious Disease Control at 603-271-4496 (after hours 603-271-5300).

To change your contact information in the NH Health Alert Network, contact Thom Flynn at 603-271-7499 or tdflynn@dhhs.nh.gov.

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From: Benjamin P. Chan, MD, MPH – State Epidemiologist
Originating Agency: NH Department of Health and Human Services, Division of Public Health Services