

PENNSYLVANIA DEPARTMENT OF HEALTH
2018 - PAHAN – 403 – 04-06 - ALT
Increase in E. coli O157:H7 Infections in Pennsylvania



DATE:	4/6/2018
TO:	Health Alert Network
FROM:	Rachel Levine, MD, Secretary of Health
SUBJECT:	Increase in E. coli O157:H7 Infections in Pennsylvania
DISTRIBUTION:	Statewide
LOCATION:	Statewide
STREET ADDRESS:	Statewide
COUNTY:	Statewide
MUNICIPALITY:	Statewide
ZIP CODE:	Statewide

This transmission is a “Health Advisory”: provides important information for a specific incident or situation; may not require immediate action.

- HOSPITALS:** PLEASE SHARE WITH ALL MEDICAL, PEDIATRIC, INFECTION CONTROL, NURSING, AND LABORATORY STAFF IN YOUR HOSPITAL
EMS COUNCILS: PLEASE DISTRIBUTE AS APPROPRIATE
FQHCs: PLEASE DISTRIBUTE AS APPROPRIATE
LOCAL HEALTH JURISDICTIONS: PLEASE DISTRIBUTE AS APPROPRIATE
PROFESSIONAL ORGANIZATIONS: PLEASE DISTRIBUTE TO YOUR MEMBERSHIP
LONG-TERM CARE FACILITIES: PLEASE SHARE WITH ALL MEDICAL, INFECTION CONTROL, AND NURSING STAFF IN YOUR FACILITY

The Pennsylvania Department of Health is investigating increased reports of *Escherichia coli* O157:H7 infections in Pennsylvania. This Alert is intended to notify clinicians to have increased awareness of such infections in patients with gastroenteritis, and to request laboratories to perform cultures to assist in the public health investigation.

Summary:

- Clinicians are urged to consider a diagnosis of *E. coli* O157:H7 in persons with diarrhea, especially bloody diarrhea, and also in persons with acute renal failure potentially consistent with hemolytic uremic syndrome (HUS). Any suspected cases of *E. coli* O157:H7 or more generally Shiga toxin-producing *E. coli* (STEC) should be reported to your local health department or the Pennsylvania Department of Health.
- Laboratories are asked to perform **cultures** of suspected cases, not only a culture-independent diagnostic test (CIDT). One strategy is to reflex to culture when a CIDT suggests an STEC infection. Submission of STEC isolates to the Bureau of Laboratories is needed for public health to conduct subtyping to adequately investigate links between cases.

E. coli O157:H7 and related Shiga toxin-producing E. coli (STEC) can produce severe bloody diarrhea and abdominal cramping, with or without vomiting. The diarrhea can be non-bloody. Fever is usually absent or not prominent. The incubation period can range from 1-7 days post-exposure, but is most often 3-4 days.

The major complication of E. coli O157:H7 infection is hemolytic uremic syndrome (HUS), which is the triad of microangiopathic hemolytic anemia, thrombocytopenia and renal insufficiency. HUS can occur during the acute phase of illness or when the patient appears to be recovering. HUS is more common as a complication of E. coli infection at the extremes of age (in children <10 years of age or the elderly). Because of the intense abdominal cramping, E. coli infections can be confused with appendicitis, ulcerative colitis or bowel necrosis.

Some clinical laboratories do not routinely test for E. coli O157:H7 or other STEC. Therefore, clinicians should specifically request testing for these organisms when submitting a stool specimen so that appropriate tests can be performed and selective culture media used. Questions about appropriate test methods for E. coli O157:H7 and other STEC should be directed to the Pennsylvania Department of Health Bureau of Laboratories. By regulation, all isolates of E. coli O157:H7 and other STEC must be submitted to the state public health laboratory for molecular subtyping (fingerprinting) such as pulsed-field gel electrophoresis and whole genome sequencing.

Most E. coli O157:H7 infections are foodborne, but waterborne outbreaks have also been recognized. E. coli O157:H7 can also be easily transmitted from person-to-person, especially among young children in child care settings and their caregivers. Care should be taken when handling and disposing of soiled items such as diapers. Food workers with STEC infections, and diarrhea of any cause, should be excluded from work and consultation made with local public health authorities.

Suspected cases should be reported to your local health department or to the Pennsylvania Department of Health at 1-877-PA-HEALTH (877-724-3258). Questions can also be directed to the Bureau of Epidemiology at 717-787-3350.

Categories of Health Alert messages:

Health Alert: conveys the highest level of importance; warrants immediate action or attention.

Health Advisory: provides important information for a specific incident or situation; may not require immediate action.

Health Update: provides updated information regarding an incident or situation; unlikely to require immediate action.

This information is current as of April 6, 2018, but may be modified in the future.
