



DATE:	March 17, 2017
TO:	Health Alert Network
FROM:	Karen M. Murphy, PhD, RN, Secretary of Health
SUBJECT:	<i>Cryptosporidium</i> Infections Associated with a Farm, Northampton County
DISTRIBUTION:	NE and SE Districts
LOCATION:	Eastern Pennsylvania
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

The Pennsylvania Department of Health is investigating gastrointestinal illness among members of the public who visited or volunteered at Heaven on Earth Farm in Easton, Northampton County. At least 5 laboratory-confirmed *Cryptosporidium* infections, and at least 16 compatible illnesses, have been associated with this farm. Additional illnesses are suspected to have occurred and investigation is ongoing.

The farm received young goats and calves in mid-February 2017 that required frequent bottle feedings, and solicited assistance from the public via Facebook. It is possible that hundreds of people were exposed to infected animals and their manure while helping to care for the animals.

Cryptosporidium is a parasite that is spread by the fecal-oral route. *Cryptosporidium* can be found in water, food, soil, or on surfaces or dirty hands that have been contaminated with the feces of humans or animals infected with the parasite.

Any person who became ill since visiting or working on the farm is advised to contact the Department of Health at 1-877-PA-HEALTH and talk to their personal physician.

In order to reduce further *Cryptosporidium* transmission and outbreak spread, the Pennsylvania Department of Health requests that healthcare providers maintain a high index of suspicion for cryptosporidiosis in persons presenting with clinically compatible

symptoms, especially if these persons report a history of animal contact or being on a farm.

Cryptosporidiosis is a parasitic infection caused by *Cryptosporidium* species. Frequent, non-bloody, watery diarrhea occurs most commonly, often associated with abdominal cramps, fatigue, vomiting, and anorexia. Fever and vomiting may be more common among children. Asymptomatic infections occur. In immunocompetent persons, infection is self-limiting, usually lasting 1-20 days. Symptoms can wax and wane. Immunosuppressed persons may have severe diarrhea that results in malnutrition, dehydration, and death, especially in persons with HIV infection.

Cryptosporidium oocysts are found in a variety of hosts, including humans, livestock, birds and reptiles. The organism is shed in feces. Transmission can occur from direct exposure to farm animals or to their manure. Proper hand hygiene after animal contact is important to prevent infection. Use of hand sanitizer is not adequate and in some outbreaks has been paradoxically shown to increase infection risk; handwashing with hot water and soap is preferred. Person-to-person transmission also occurs, particularly in house-holds and in childcare centers. Contact with contaminated surfaces such as bathroom fixtures or changing tables can transmit the parasite. Waterborne outbreaks have been associated with contamination of municipal water supplies and with exposure to contaminated swimming pools because the organism is resistant to chlorine disinfection. People with diarrhea should not swim in public lakes and pools.

The median incubation period is seven days, with a range of two to 14 days. Oocysts can be shed in the stool for up to two weeks after symptoms resolve.

Routine laboratory examination of stool for ova and parasites will not detect

***Cryptosporidium* species.** Stool specimens should be submitted to the clinical laboratory with a specific request for *Cryptosporidium* detection. Many laboratories perform PCR or an enzyme immunoassay (EIA) test to detect antigen in stool. *Cryptosporidium* may also be detected with a monoclonal antibody-based fluorescein-conjugated stain for oocysts in stool, or visualized with a modified Kinyoun acid-fast stain.

The majority of healthy children and adults recover from cryptosporidiosis without treatment. Treatment is usually considered for individuals with prolonged symptoms, and for individuals who are immunocompromised. Nitazoxanide has been approved by FDA for the treatment of children >12 months and adults with cryptosporidiosis.

Attention to hand hygiene is important to limit spread. Counsel all patients with diarrheal illness to wash hands after using the bathroom, changing diapers, and before preparing food. Young children should be instructed to wash hands after using the toilet and supervised when doing so.

Persons with diarrhea should be excluded from high-risk settings. This includes food service workers, daycare workers or attendees, and healthcare workers. No child or staff member with acute onset diarrhea should attend group settings, such as child care, camp, school, etc., while they have diarrhea.

Cryptosporidiosis is a notifiable condition and all confirmed and suspected cases must be reported to the local public health authorities.

Any questions or concerns regarding these recommendations should be directed to the Pennsylvania Department of Health at 1-877-PA-HEALTH. Questions can also be directed to the Bureau of Epidemiology at 717-787-3350. Further information on cryptosporidiosis is available on the Department of Health web site at www.health.pa.gov or the web site of the Centers for Disease Control and Prevention at www.cdc.gov.

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 March 17, 2017 but may be modified in the future.
