



THE CITY OF NEW YORK

DEPARTMENT OF HEALTH AND MENTAL HYGIENE

Michael R. Bloomberg
Mayor

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Commissioner

nyc.gov/health

2006 Alert # 40:

Increase in *E. coli* O157:H7 in Counties Surrounding New York City

- An increase in *E. coli* O157 cases has been reported in counties surrounding New York City. No cases have been reported among New York City residents since November 1, 2006.
- Healthcare providers should specifically request testing for Shiga toxin producing *E. coli* (STEC) in patients being evaluated for bloody diarrhea or hemolytic uremic syndrome (HUS). The medium of choice for isolation is sorbitol-MacConkey (SMAC) agar.
- Immediately report all suspected and confirmed cases of STEC infection or HUS to the New York City Department of Health and Mental Hygiene (DOHMH).
- Send suspect and culture confirmed STEC (including *E. coli* O157:H7) isolates to the Public Health Laboratory (PHL) for confirmation, serotyping, and pulsed-field gel electrophoresis (PFGE).
 - Timely submission of STEC specimens is crucial to facilitate prompt recognition and investigation of potential outbreaks of *E. coli* O157:H7.
 - Laboratories should send original stool specimens (or broths) to PHL when patient are Shiga toxin positive, even in the absence of culture confirmation.

Please Distribute to All Clinical Staff in Pediatrics, Primary Care, Infectious Diseases, Emergency Medicine, Family Medicine, Laboratory Medicine and Infection Control Staff

December 4, 2006

Dear Colleagues,

Due to an increase in *E. coli* O157:H7 cases in jurisdictions surrounding New York City, DOHMH wishes to remind physicians to consider Shiga toxin producing *E. coli* (STEC) in the differential diagnosis for patients presenting with bloody diarrhea, diarrhea with fever, hemolytic uremic syndrome (HUS) or thrombocytopenic purpura (TTP). Epidemiologic investigation of

the cases outside of New York City to determine the likely source is ongoing. The New York City Department of Health and Mental Hygiene has not received a report of *E. coli* O157:H7 infection among New York City residents since November 1, 2006. DOHMH receives an average of 25 cases per year.

The *E. coli* O157:H7 bacterium causes diarrhea that is often bloody and accompanied by abdominal cramps, and fever may be absent or mild in adults. The illness typically resolves within a week. However, some patients, especially young children and the elderly, may develop HUS. HUS is characterized by the acute onset of microangiopathic hemolytic anemia, renal injury, and low platelet count. Treatment is supportive; anti-diarrheal medications and antibiotics are not recommended as both have been associated with adverse outcomes.

DOHMH reminds healthcare providers to specifically request testing for STEC (including *E. coli* O157:H7) in individuals, especially children, who present with bloody diarrhea, hemolytic anemia, or renal failure. *E. coli* O157:H7 is not detected by standard methods used for other common bacterial enteric pathogens. The medium of choice for isolation is sorbitol-MacConkey (SMAC) agar. **Laboratories should attempt to isolate *E. coli* O157:H7 in addition to standard testing for detection of Shiga-toxin producing bacteria.**

In order to completely investigate these reports it is necessary for all suspect and culture confirmed STEC (including *E. coli* O157:H7) isolates to be forwarded to the Public Health Laboratory (PHL) for confirmation, serotyping, and pulsed-field gel electrophoresis (PFGE). As laboratories are increasingly using non-culture based methods (e.g., rapid diagnostic tests for shiga toxin production), laboratories should send original stool specimens (or broths) to PHL when a patient is Shiga toxin positive and either culture negative or no culture test was done. Specimens that are both shiga toxin negative and culture negative do not need to be forwarded.

All suspect STEC isolates should be forwarded to NYC DOHMH's Public Health Laboratory (PHL) for confirmation, serotyping, and PFGE. Labs which are only performing rapid diagnostic testing to determine shiga toxin production should forward all original stool specimens or broths to PHL for culture. Please forward cultures and specimens to:

Lillian Lee MS, SM (NRM-ASCP), Chief of Microbiology Services
Public Health Laboratory, Rm 136
455 First Ave
New York, NY 10016
(212) 447-6970

All laboratory positive STEC cases and any suspected cases of HUS should be reported immediately, to help us identify outbreak-associated cases. Please contact us as follows:

During business hours: Bureau of Communicable Disease at (212) 788-9830.
After hours: Poison Control Center at 800-222-1222.

As always, we appreciate your continued assistance in addressing emerging disease issues.

Sincerely,

Vasudha Reddy, MPH

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