



Pat Quinn, Governor

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MEMORANDUM

TO: Local Health Departments Communicable Disease Personnel, Regional Offices of Illinois Department of Public Health, infectious disease physicians, infection control preventionists, Illinois laboratories

FROM: Connie Austin, D.V.M., M.P.H., Ph.D.
State Public Health Veterinarian

DATE: October 28, 2011

SUBJECT: Testing for shiga toxin producing *E. coli*

Rapid laboratory identification of shiga toxin producing *E. coli* (STEC) strains is important for appropriate treatment of the patient and for effective and timely outbreak responses. The Illinois Department of Public Health is requesting that all clinical microbiology laboratories in the state follow CDC recommendations about shiga toxin producing *E. coli* testing.

Plate ALL stools submitted for enteric culture on SMAC (sorbitol MacConkey) or CT-SMAC or CHROMager O157 agar. Although non culture methods like enzyme immunoassay (EIA) or polymerase chain reaction (PCR) can be used to detect shiga toxin 1 and 2 these methods should not replace culture. A pure culture of the pathogen is needed for serotyping and molecular characterization which is essential for investigating and controlling STEC outbreaks. It is recommended that culture and non-culture methods be performed at the same time by clinical laboratories, if feasible, to ensure rapid identification of the organism.

In Illinois, laboratories are required to report to the local health department all patients who have a positive result from a stool specimen or any laboratory test indicative of, and specific for, STEC infection. They should also submit the isolate, broth or other specimen to the IDPH Division of Laboratories for serotyping and pulse field gel electrophoresis. If a non-culture method is performed and no culture is performed, IDPH requests that the original stool specimen (on Cary-Blair transport medium, in a broth, whole stool etc) be sent to the state laboratory for confirmation. These isolates and specimens should be shipped to arrive on regular work days unless directed otherwise.

Technical information about clinical laboratory recommendations for culture and testing methodologies can be found at the CDC website:

<http://www.cdc.gov/mmwr/PDF/rr/rr5812.pdf>