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**RE:** Detection of Shiga Toxin Producing *E. coli* in Diarrheal Stools

**DATE:** June 14, 2010

Greater than 40 serotypes of Shiga-Toxin-producing *E. coli* are known to cause diarrhea with or without hemorrhagic colitis and hemolytic-uremic syndrome. For approximately 10 years, we have routinely cultured stool specimens only for *E. coli* O157, the most publicized of the many serotypes, because it is the only Shiga-Toxin-producing serotype which can be easily differentiated in culture from wild type non-pathogenic *E. coli*.

Beginning the week of June 14, we will routinely perform testing which detects Shiga Toxins in stool without regard to *E. coli* serotype and discontinue routine culture for *E. coli* O157. The sensitive and specific test for detection of Shiga Toxins is a commercially available EIA (enzyme immunoassay; Meridian Bioscience, Inc.) in microwell format which uses monoclonal anti-Shiga Toxin antibodies to capture Shiga Toxins as antigen. Shiga-Toxin-positive specimens will be forwarded to NYSDOH Laboratories for serotyping.

With the above protocol change, our routine workup of stool specimens for community-acquired bacterial diarrhea will now include: Culture for *Salmonella*, *Shigella* and *Campylobacter*, and EIA testing for Shiga Toxin. If specifically requested on specimen requisitions, we will also perform culture for *Vibrio* and *Yersinia*.

For further information contact Woody Cichanowicz, Highland Hospital Microbiology at 341-6695 or Laura Paul, SMH Microbiology at 275-1340.