



UNC  
HEALTH CARE

**MEMORANDUM #140**

TO: UNC Hospitals Attendings, Housestaff, Department Heads, Nursing Coordinators and Supervisors

FROM:  Peter Gilligan, PhD, Director, Clinical Microbiology/Immunology Laboratories

 Martha McGee, Assist Admin Director, Clinical Microbiology/Immunology Laboratories

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**SUBJECT: Shiga Toxin Testing**

DATE: October 3, 2012

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Effective October 5, 2012, the Clinical Microbiology Laboratory will offer testing to detect Shiga toxin in stool. This will become our standard method for detecting Shiga toxin producing *Escherichia coli* (STEC). This organism is a well-recognized cause of food borne, day care and petting zoo diarrheal disease outbreaks. Twice in the past 10 years outbreaks have occurred in North Carolina after animal exposure at the NC State Fair. Shiga toxin is produced by a number of serotypes of *E. coli* the most common type being O157:H7. These isolates cause diarrhea which is frequently bloody. Signs and symptoms of colitis are characteristic of STEC infections. A subset of patients especially children may develop hemolytic uremic syndrome.

In order to test stools for STEC, please order "**Culture, fecal with shiga toxin.**"

This test is **not** part of the "**Culture, fecal**" order in SMS.

Colonoscopy and colostomy specimens are also acceptable for testing.

The laboratory will test all stools for the presence of Shiga toxin that have visible blood, have a diagnosis in SMS or on laboratory requisitions of "bloody diarrhea," or all stools received during a national food borne outbreak or other regional outbreaks due to STEC such as those associated with the NC State Fair. Since patients with stools positive for fecal white blood cells have an increased pre-test probability for STEC infections, all stools positive for fecal WBCs will also be tested. If you are not sure if your patient fits into the above criteria and you want to rule STEC out, please order, "**Culture, fecal with shiga toxin**" to insure this testing is done on your patient's specimen. Culture for *E. coli* O157:H7 will no longer be performed by our laboratory.

The test is offered 24 hours day/7 days a week. The test turn-around-time is 48 hours.

Please contact the Microbiology Laboratory at 966-4056 or Dr. Peter Gilligan at 966-6313 with any questions.