

Memorandum - Micro #226

To: UNC Health System Attending Physicians, Faculty Practice Physicians,

Housestaff, Clinical Nurse Coordinators, Department Heads and

Supervisors

From: Melissa Miller, PhD

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Subject: New Ehrlichia PCR Test

Beginning August 14, 2023, the Clinical Molecular Microbiology Laboratory at UNC Medical Center will offer *Ehrlichia* PCR (Test ID: **LAB138168**) testing on whole blood (purple EDTA tube).

The new test detects *Ehrlichia* species DNA by real-time PCR using DiaSorin analyte specific reagents targeting the 16S rRNA gene in a real-time PCR laboratory developed test. *Ehrlichia chaffeensis, E. muris subsp. eauclairensis, E. ewingii,* and *E. canis* are detected but not differentiated by this test.

Ehrlichiosis is a tick-borne disease with relatively non-specific early symptoms (e.g., fever, headache, myalgia) that largely overlap with those of Rocky Mountain spotted fever (RMSF). Nationally, the incidence of ehrlichiosis has more than doubled over the past decade and North Carolina experiences some of the highest incidence rates in the country. Despite the similarities with other tick-borne diseases, only about half of UNC Health patients tested for RMSF are also tested for ehrlichiosis. Delays in diagnosis and treatment are strongly associated with more severe and even fatal disease. Clinicians should consider ehrlichiosis in the differential of any patient with an acute febrile illness occurring during peak transmission periods (April – October), and especially individuals with concurrent laboratory abnormalities including leukopenia, thrombocytopenia, and elevations in AST and ALT.

Testing will be performed daily Monday through Friday with a turnaround time of 1-3 days. Additional information is available at the UNCMC McLendon Clinical Laboratories website: McLendon Ehrlichia PCR Test.

Questions can be directed to the UNCMC Clinical Molecular Microbiology Laboratory at 984-974-1820 or Dr. Melissa Miller at Melissa.Miller@unchealth.unc.edu.