March 11, 2025

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To: UPHS Physicians and Staff

From: **The Division of Precision and Computational Diagnostics (PCD)**
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Date: March 11, 2025

Re: **New Assay: Anaplasma and Ehrlichia PCR**

Anaplasma phagocytophilum and Ehrlichia species are tick-borne bacteria causing anaplasmosis and ehrlichiosis, respectively. The Centers for Disease Control and Prevention, Infectious Diseases Society of America, and American Society for Microbiology recommend molecular testing (PCR) as the preferred diagnostic method for acute infection (<7-10 days post-symptom onset).

On March 25, *Anaplasma* and *Ehrlichia* PCR testing, which is currently being sent to a reference laboratory, will transition to in-house testing at the Rittenhouse Molecular Laboratory for HUP, PPMC, PAH, HUP54, CCH, and PMPH.

Test Name/ analysis

- Methodology: Automated real-time PCR using analyte specific reagents (ASR) from FWDX (ANA002 and EHR002) on the cobas x800 system omni Utility Channel (Roche Diagnostics)
- Detection: The assay detects the *msp2* gene of *Anaplasma phagocytophilum* and the 16S rRNA gene of *Ehrlichia* spp., providing coverage for *E. chaffeensis*, *E. ewingii*, *E. canis*, and *E. muris*-like species.
- Reporting: A. *phagocytophilum* detected or not detected; *Ehrlichia* spp. detected or not detected.
- Limitations: This assay does not differentiate between species of *Ehrlichia*. The assay does not detect other agents of tick-borne disease such as *Babesia microti*, *Borrelia miyamotoi*, or *Borrelia burgdorferi*; if these organisms are suspected, appropriate additional testing should be ordered.

Testing Information

	Test Name
PennChart Ordering:	Ehrlichia and Anaplasma Real-Time PCR; ECHANAPC
Turnaround Time:	2 – 5 days
Acceptable Specimen:	Whole blood collected in an EDTA (lavender or pink) tube

Contact Information: Call the Rittenhouse Molecular Laboratory (215-893-2270) during regular business hours. For information on ordering and specimen requirements, kindly consult the Lab Tests Services Guide.