

Medical Staff Bulletin

Date: 28th November, 2018

Pneumocystis jirovecii (PJP) Test Change in Microbiology, UHN/Sinai Health System

As of 10th December, 2018, a new PJP quantitative PCR test will replace the current direct immunofluorescence microscopy assay (DFA). The new PCR test is much more sensitive and will detect PJP in samples not detected by the current DFA method. In addition, positive results will include a quantitative value reported in copies/mL. Specimen collection and ordering procedures remain the same until future EPR/Cerner computer upgrades are implemented. BAL and bronchoscopy specimens are preferred whereas endotracheal tube aspirates and induced sputum samples are also acceptable for testing. Highlights of the changes are shown in table below.

	Current PJP assay	New PJP assay
Effective Dates	Up to 9 th December, 2018	Starts 10 th December, 2018
Methodology	Direct Immunofluorescence microscopy, MERIFLUOR [®] Pneumocystis, Meridian Biosciences	Quantitative real-time PJP PCR RealStar Assay, altona Diagnostics GmbH Hamburg, Germany
Negative report	<u>Pneumocystis Detection:</u> Negative for Pneumocystis jirovecii (previously known as P. carinii), by Immunofluorescence.	<u>Pneumocystis Detection:</u> Pneumocystis jirovecii (previously known as P. carinii) not detected by PCR. This is a research use only assay performed using the altona RealStar Assay.
Positive report example	<u>Pneumocystis Detection:</u> Pneumocystis jirovecii (previously known as P. carinii) DETECTED by immunofluorescence.	<u>Pneumocystis Detection:</u> Pneumocystis jirovecii DETECTED by PCR, 2.34E+3 copies/mL. This is a research use only assay performed using the altona RealStar Assay. The clinical significance of values less than 1.00E+4 copies/mL requires further evaluation. Results should be correlated with the clinical signs, symptoms, and history of the patient.

Please share this notice with your team and anyone else who should be aware of this change.

For more information, questions, or concerns:

Please contact the Microbiology Call Centre (416-340-4800 ext. 5227) or the Medical Microbiologist on call through Sinai Health System locating (416-586-5133).

Microbiology Lab, Molecular Section (416-586-4800 x4182)