LABORATORY BULLETIN

2005-10-21

To: Respirologists, Intensive Care Physicians, ID Specialists, Infection Prevention and Control Physicians, Laboratory Directors and Managers

Re: Changes in respiratory virus testing algorithm

PLEASE POST OR DISTRIBUTE WIDELY AS APPROPRIATE

Conventional methods based on culture and antigen detection (DFA) are useful for many viral targets but are heavily reliant on the quality (and type) of sample collected and the pathogen to be identified. Nucleic acid amplification methods (e.g. that utilize PCR or NASBA) can be used to enhance the sensitivity of diagnostic processes and may pick up respiratory pathogens that are not readily identified by DFA or culture.

The changes to respiratory virus diagnosis implemented 10th January 2005 included use of validated nucleic acid amplification methods for detection of influenza A, influenza B, parainfluenza viruses (PIV) 1-3, respiratory adenoviruses, respiratory syncytial virus (RSV) and metapneumoviruses. This implementation was for critical (lower respiratory) specimens only and has proved very successful.

Effective 07 November 2005 we will extend nucleic acid testing to replace all respiratory virus culture-based procedures. DFA will remain as the first line test for nasopharyngeal (NP) specimens. DFA negative NP specimens will be subjected to nucleic acid testing. All other respiratory specimen types will receive nucleic acid testing only for the above viruses unless it is a bronchoscopic specimen or investigation for possible herpesvirus infection (HSV and CMV) is requested.

Expanded testing and typing for respiratory pathogens

Although nucleic acid amplification methods for detection and typing of other microorganisms are available within the ProvLab, they require further validation and are not available as routine diagnostic tests. These assays will only be available in a limited set of circumstances for individual cases (or potential outbreaks) in consultation with the Microbiologist/Virologist on call (Calgary call 403 268 7210; Edmonton call 780 407 7121). These additional tests will only be performed if identification of an agent will significantly change patient

management, if it is important for infection control or as part of an outbreak investigation. Such testing will be audited over the season to provide useful information for a possible further change to procedures but please be aware that at the moment such testing cannot be provided routinely.

If you have any queries or comments please contact one of us below:

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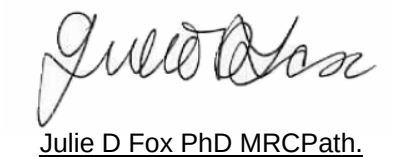

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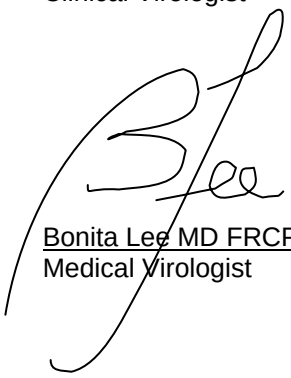

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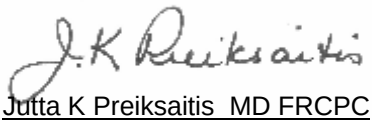

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