CPHLN/RLSPC

The Canadian Public Health Laboratory Network

CPHLN Recommendations on Laboratory Evidence of SARS CoV Infection

Table 1: Laboratory Evidence of SARS CoV Infection

Lab test	Strength of evidence	Additional lab tests	Comments
Detection of SARS-CoV RNA by **RT-PCR** on at least two different clinical samples Initial clinical samples should be aliquoted in 2-3 different tubes prior to extraction. An initially positive sample should be confirmed using one of the back-up tubes. Ideally two different sets of primers should be used to confirm the diagnosis.	Sensitivity and specificity of these tests is currently unknown. Testing of different aliquots of a given sample and that of a second clinical sample (from a different site, or the same site on a different day) should reduce the frequency of false positive results. Testing in a second independent laboratory is recommended to verify PCR results.		Nested RT-PCR is highly susceptible to contamination
Seroconversion by IFA or ELISA	Probably good during known cluster of cases, but exact sensitivity and specificity are still unknown.	Collect second serum sample 14 days after the initial serum sample (**NOTE**: Some patients may take 21 or more days to seroconvert. If there is no detectable seroconversion after 21 days, a specimen should be taken at 28 days.)	Seroconversion should not be used to define the first case of a possible cluster. Confirmation of seroconversion to SARS CoV by Plaque Reduction Neutralization (PRN) is strongly recommended.
Positive **Viral Culture**	Excellent		Should only be done in a certified Level 3 laboratory