

To: St John Health System and RML Clients

From: Regional Medical Laboratory

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Date: 03/31/2020

Subject: COVID19 Reporting - Possible discrepant results between reference laboratory and

Regional Medical Laboratory in-house testing

Regional Medical Laboratory is committed to medical excellence and compassionate care.

As results are coming back from other reference laboratories previously used for testing, we have received some calls regarding discrepant results.

Possible reasons for discrepant results

- 1. The first specimen was collected early in infection when viral load is very low causing a false-negative result, and the viral load is now higher with a subsequent recollection
- 2. Sensitivity and specificity of testing may differ from one laboratory to another
- 3. The first sample was an inadequate nasopharyngeal collection was an improperly collected specimen resulting in a false negative
- 4. The stability of specimens exceeded due to transitioning of testing from one reference lab to another reference laboratory resulting in delay of testing. A very low viral load may not survive multiple freeze/thaw cycles or prolonged storage.

## Recommendations

- Subsequent positive results should be considered valid. Testing performed at Regional Medical Laboratory has 100% specificity and very high sensitivity down to 100 copies/ml of virus, thus a positive result is valid. False positives are NOT expected with an adequate nasopharyngeal specimen collection.
- 2. If the reference lab result is negative and your patient is still symptomatic, we highly suggest recollection of a nasopharyngeal specimen for retesting at Regional Medical Laboratory.

We appreciate the opportunity to serve you. If there are additional questions, please contact Dr. Gerald Miller 918-744-2553 or Sonja Matthews 918-744-2500.