Saliva COVID Testing

Testing for COVID continues to evolve at a rapid pace. In just 8 short weeks, we have made incredible progress with the development of our “in-house” testing abilities and our partnership with Corteva Agriscience. We are now pleased to announce that Corteva has validated saliva-based testing for molecular (PCR) detection of COVID-19 in accordance with FDA Emergency Use Guidelines. While this testing modality is fairly new, multiple well-respected academic institutions (including Yale and Rutgers) have shown this method to be preferable over traditional nasopharyngeal (NP) swabs. In addition to the improved ease of collection for both patients and providers, here are some of the key points and additional benefits of saliva testing:

- Corteva’s validation study compared their saliva kits, NP swabs, and the saliva collection kits used by Rutgers University for their FDA submission. The Corteva study met the recommended acceptance criteria from the FDA.
  - The FDA recommends that additional validated specimens have ≥95% concordance for the detection of COVID-19 when compared to other FDA approved PCR methods and specimen types.
  - The Corteva saliva testing method actually detected more positive cases than the NP swabs. This is possibly due to difficulties with NP swab collection, although there is also data that suggests saliva is a superior specimen.

- The Corteva saliva collection kit contains a special reagent that inactivates the virus and stabilizes the RNA for detection.
  - This allows for safe transport of patient material.
  - Previously samples were collected and transported in viral transport medium which kept the virus viable increasing the risk of contamination and transmission to laboratory personnel.

- The saliva test kits allow for increased workload on the PCR instrumentation.
  - Due to the NP kit limitations, only 92 patients could be tested during a single run (a run typically takes 4-5 hours for results).
  - With the saliva kits, Corteva is able to test 368 patients during a single run. This will enable Corteva to run >1000 patient samples every 24 hours.

The following hospitals (across the state) can send testing to MercyOne Des Moines Laboratory. These results are available in the MercyOne Des Moines Medical Center Cerner health record.

| Adair County Hospital, Greenfield | Van Diest Medical Center, Webster City |
| Davis County Hospital, Bloomfield  | Wayne County Hospital, Corydon       |
| Dallas County Hospital, Perry    | MercyOne Centerville Medical Center  |
| Decatur County Hospital, Leon    | MercyOne Clinton Medical Center      |
| Knoxville Hospital and Clinics   | MercyOne Dubuque Medical Center      |
| Madison County Hospital, Winterset | MercyOne Newton Medical Center     |
| Manning Regional Healthcare Center | MercyOne North Iowa Medical Center |
| Monroe County Hospital, Albia    | MercyOne West Des Moines Center      |
| Ringgold County Hospital, Mount Ayr |                        |
The following logic is used by Corteva to analyze and report results:

*Consider alternate testing methods if a repeat test is indicated.*

**Collection Instructions**
The complete collection details are below. **It may be helpful to collect the saliva in a sterile container and then pipette into the orange cap vial from there.** Please feel free to order additional sterile containers and sterile pipettes from MercyOne Des Moines Laboratory to help ease the collection process.
Things to remember:

1. **Do NOT interchange the small bag and the vial.** The small bag and vial are barcoded with the same unique ID number for tracking and labeling purposes.

2. Collect 1mL of saliva in the pipette. **Fill the orange cap vial to the top of the barcode (about 0.5 mL of saliva).** Discard the remaining saliva. Please note, the fluid in the orange cap vial is toxic, do NOT reuse the pipette once saliva is aspirated into the vial.

3. This is the only specimen type where the tube is not labeled directly, due to the uniqueness of the tube and processes around this testing. Please ensure the orange cap is properly and tightly screwed on before placing in small bag. **Affix the Cerner label on the outside of this small bag, below the kit label (not covering the label on the kit).** Place the small bag in a biohazard bag.

Questions can be directed to any of the following individuals:

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