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**Lab Dept:** Microbiology/Virology

**Test Name:** SEVERE ACUTE RESPIRATORY SYNDROME  
CORONAVIRUS 2 (SARS-CoV-2) RNA, MDH

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***General Information***

**Lab Order Codes:** COVS

**Synonyms:** SARS-CoV2/COVID-19; Coronavirus; Novel coronavirus

**CPT Codes:** U0003 – Infectious agent detection by nucleic acid (DNA or RNA); severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (Coronavirus disease [COVID-19]), amplified probe technique, making use of high throughput technologies

**Test Includes:** Please follow ordering guidelines established by Children’s Infection Prevention and Minnesota Department of Health

COVID-19 reported as Negative or Positive.

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***Logistics***

**Lab Testing Sections:** Microbiology/Virology - Sendouts

**Referred to:** MN Department of Health

**Phone Numbers:** MIN Lab: 612-813-6280

STP Lab: 651-220-6550

**Test Availability:** Daily, 24 hours

**Turnaround Time:** Within 72 hours of receipt at the Minnesota Department of Health (MDH) lab

**Special Instructions:** Please submit the [COVID-19 Patient Testing Form](#) with your specimens sent to the lab. Specimens cannot be forwarded to MDH without this form.

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***Specimen***

**Specimen Type:** Preferred: NP swab  
NP = Nasopharyngeal

Additional specimen collections:  
Sputum – Collect only if patient has a productive cough  
BAL or Tracheal Aspirate

**Container:**

- NP swabs – CHC Supply# 32788, Swab, flocked Sterile 3mL



- Sputum, BAL or Trach Aspirate – Sterile cup

**Collection:**

**NP Swab:**

1. Open the package that contains the swab and transport medium tube. Set the tube aside before collecting the specimen.
2. Open the swab wrapper and remove the swab, taking care not to touch the tip of the swab to any surface.
3. Hold the swab in your hand, pinching in the middle of the swab shaft on the scoreline.
4. Gently insert the swab into the nostril until you touch the posterior nasopharynx. Rotate the swab several times.
5. Remove the cap from the tube. Insert the swab into the transport medium.
6. Break the swab shaft against the side of the tube at the scoreline. Avoid splashing contents on the skin. Wash with soap and water if exposed.
7. Replace the cap on the tube and close tightly for transport to the lab.

**Sputum, BAL, Trach Aspirate:** Collect via protocol and put in sterile cup.

**Specimen Transport:**

Transport to the laboratory immediately to maintain specimen integrity. **Specimens will be stored refrigerated (2-8° C) or frozen (<20° C) if delay in shipping exceeds 72 hours.**

**Sample Rejection:**

Samples collected with any other swab or collection device other than listed above; improperly labeled samples, leaking containers. If an unacceptable specimen is received, the patient's caregiver will be notified and another specimen will be requested before the specimen is discarded

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**Interpretive**

**Reference Range:**

Reported as Negative or Positive  
Values will be reported for each specimen type tested.

**Alert Values:**

Positives will be reported to Infection Prevention.

**Limitations:**

- A false negative result may occur if inadequate numbers are present in the specimen due to improper collection, transport or handling.
- RNA viruses in particular show substantial genetic variability. Although efforts were made to design rRT-PCR assays to conserved regions of viral genomes, variability resulting in mis-matches between primers and probes and the target sequences can result in diminished assay performance and possible false negative results.

**Methodology:**

Reverse Transcriptase Polymerase Chain Reaction (RT-PCR) and Real-time PCR.

**References:**

<https://www.cdc.gov/coronavirus/2019-ncov/index.html>

<https://www.who.int/emergencies/diseases/novel-coronavirus-2019>

<https://www.health.state.mn.us/diseases/coronavirus/index.html>

<https://www.health.state.mn.us/diseases/idlab/labcovid19.html>

<https://www.health.state.mn.us/han>

**Updates:**

5/1/2020: Updated CPT code.