Ambulatory Negative Covid Test Algorithm — Symptomatic Pediatric Patient (< 18 years old)

Estimates of the sensitivity of COVID-19 PCR testing vary widely but may be in the 70-90% range in ambulatory patients. Sensitivity highest within 48 hours before and after symptom onset due to high viral loads.

Factors that may increase false negatives:
- Assay used:
  - Lab-based PCR (e.g. YNHH, Mayo, Quest) estimated at 85-90% sensitive
  - POC tests (e.g. Abbott ID now and others) predicted to be 10% lower
- Other factors:
  - Poor sample quality or sampling technique
  - Advanced disease stage — viral loads are highest EARLY in disease
  - Variable viral shedding, including patient-specific factors
  - Disease severity

Clinical suspicion for covid

- Self isolate until 24 hrs with no fever and resolving symptoms
- Consider Flu Testing in Season

Clinical suspicion for covid

- Mod-HIGH
- Advise self isolate; Consider PUI

Examples of High Risk:
- Known COVID-19 + exposure
- Attended Large Social Gathering
- Travel to High Risk Area

Low, or alternative diagnosis likely

- Self isolate until 24 hrs. with no fever and resolving symptoms

Worsening symptoms or failure to improve
- OR
- High risk patient* with persistent symptoms
- OR
- High risk household**
- OR
- Known COVID-19 + patient in the household/known exposure

Retest for covid in 2-3d
- Ensure high quality sample
- Consider additional diagnostic testing (e.g., labs, CXR) if can be done safely
- Consider home 02 sat monitoring if available
- Refer to ED if clinically warranted

If repeat COVID-19 test is POSITIVE then home isolation 10 days with resolving symptoms and no fever x 24 hrs.

If repeat COVID-19 test is NEGATIVE and known exposure then home quarantine per CDC.

No known exposure, self isolate until 24 hrs. with no fever and resolving symptoms.

Explore Alternative Diagnosis.

CDC Quarantine Guidelines December 2, 2020
Lowest Risk for spread: 14 days
Acceptable Alternatives: 10 days with no symptoms OR 7 days no symptoms with negative test at day 5 or later
All Patients continue to monitor for symptoms, wear a mask and socially distance x 14 days

*For symptomatic children with risk factors for disease progression: Examples include not limited to:
- Asthma that requires daily medication
- Diabetes
- Immunosuppression or immunodeficiency
- Obesity or BMI > 95% for age
- Congenital or chronic heart, kidney, liver or lung disease
- Teenager
- Black or Hispanic Persons

**High risk household member with high risk condition:
- Age > 60
- BMI > 30
- Diabetes
- Chronic heart, kidney, liver or lung disease
- Asthma that requires daily medications
- Malignancy and undergoing treatment
- Immunosuppressive illness or medication
- Smoker

Labs to consider: CBC, CRP, ferritin, procalcitonin, complete metabolic panel (Lymphopenia, elevated inflammatory markers, hepatitis, examples of labs consistent with COVID-19)