

Coronavirus Disease-2019 (COVID-19) Diagnosis and Treatment Guidelines for Ambulatory Care Providers

The following guidelines have been generated based on scientific and practical observations in the care of thousands of patients coming to Henry Ford Health System facilities from mid-March through the beginning of May, 2020. These diagnosis and treatment guidelines – prepared with input from experts at Henry Ford, including those in Infectious Diseases, Infection Control and Prevention, Primary Care, Pulmonary Medicine and Employee Health – convey the best practices put into place by this team of care professionals during this fast-moving pandemic.

As always, please continue to seek out the latest care information by accessing reputable sources, many of which are provided on the [COVID Resources](#) page on the [HFPH website](#).

Who should be considered for a COVID-19 PCR test?

Patients with mild or moderate symptoms suggestive of COVID-19 not requiring admission.

Typical symptoms include:

- Fever*
- Cough
- Myalgias
- Shaking and chills (intermittent)
- Sore throat
- Fatigue
- Loss of taste and/or smell
- Muscle pain
- Headache

More atypical presentations:

- Signs or symptoms of hypercoagulability including PE or DVT, arterial thrombus
- Cardiac issues, including myocarditis, pericarditis and pericardial effusions
- CNS encephalopathy stroke
- Skin conditions and unusual rashes such as purpuric
- Diarrhea and/or abdominal pain

**Fever is not always consistently present; less than 50% of patients have fever at the time of diagnosis of COVID-19.*

Which COVID-19 testing is available?

PCR tests performed on either a nasopharyngeal or nasal swab can be performed at the following Henry Ford Medical centers: Ford Road (Dearborn), Woodhaven, Troy, Lakeside, Bloomfield Township. Testing requires an order in Epic and an appointment for testing. The HFHS lab will process the specimen with turn-around time of 24 hours.

Antibody (serologic) testing is being actively pursued. Henry Ford Health System Microbiology Laboratory is expected to have serologic testing available in the near future.

Please note: serologic testing of any kind currently has limited utility in the absence of any guidelines for interpretation of test results. Current ongoing studies (including those at HFHS) may provide additional information on how best to use these tests as it relates to viral exposure or whether or not immunity is implied by positive serology. This is particularly true for low incidence populations (low pre-test probability). At this time, serology (antibody) testing is not a primary diagnostic test for disease but rather a population surveillance tool.

Does a positive PCR test mean the individual is shedding viable virus and is infectious to others?

We believe patients are infectious for up to 2-3 days before the development of symptoms and may have a positive PCR test at that time. A patient who has recovered from COVID-19 clinically may still have a positive PCR test for several weeks after illness onset. It is considered most likely that for many, the test represents not ongoing infectivity but shedding of viral fragments. Unfortunately, at the current time there is no lab methodology available to prove ongoing infectivity.

Therefore, re-testing as a test of cure is not recommended even for healthcare workers. Henry Ford is currently using a non-test-based strategy for return to work for its workforce. A universal masking strategy for the workforce in addition to all ambulatory patients and visitors coming into HFHS facilities will continue until further notice to add additional safety protective measures.

As all tests are imperfect, so too is the PCR test. It may be falsely negative due to sampling error, test dynamics, intermittent shedding or other factors. So, if clinical suspicion is high, assume the patient has COVID-19 infection. Such patients do not necessarily need retesting if your management will not change.

What is the recommendation for a healthcare worker patient who has a positive test?

Any HFHS healthcare workers (HCW) should contact Employee Health (313-651-1119) for advice about quarantining at home. Any non-HFHS HCWs and first responders should consult with their own company's Human Resources or Employee Health department, as return to work strategies may vary. If patients have mild disease they may be managed as an outpatient.

When should a COVID-19 positive/suspected patient be sent to the hospital?

Providers and patients should be aware that clinical worsening of respiratory symptoms may be abrupt and require a call ahead to Emergency Medicine services. These symptoms include:

- Difficulty breathing
- Chest pain or pressure
- Blue lips or face
- “Silent” Hypoxia which is initially exertional and then at rest. If the patient has a pulse oximeter, recommend walking for 2 minutes and assessing for a drop to <94% O₂
- Severe diarrhea with suspected dehydration.
- Overall worsening with suspicion for pneumonia
- Patients with acute encephalopathy or suspicion for myocarditis or pericarditis or effusion.

Patients may abruptly worsen around days 5-10 of clinical illness due to cytokine storm so it is reasonable to check in on your patients by video-visit or telephone at least once during this time.

What is the Patient Protocol for suspected or confirmed COVID-19 at an Ambulatory visit?

Patients may follow standard policies for Ambulatory Visits once the following criteria are met:

- A. Time-since-recovery strategy (non-test-based strategy).** Persons with COVID-19 who have symptoms and were directed to care for themselves at home or discharged from hospital prior to 21 days of initial diagnostic test may discontinue Home Isolation after 21 days from initial test.
- B. Individuals with Laboratory-confirmed COVID-19 who have not had any symptoms.** These individuals may discontinue home isolation under the following conditions:
 - At least 10 days have passed since the date of the first positive COVID-19 diagnostic test
 - **And** have had no subsequent illness
- C. Suspect or confirmed COVID-19 patients under home isolation requiring outpatient clinical provider management.**
 - Outpatient visits will be conducted as a mobile video-visit or telephone check-in as clinically appropriate.
 - In-clinic visits will occur only under the following conditions:
 - A. Patient presents to the clinic without a scheduled appointment

- B. Patient does not have the technology required to support a video visit
- C. Clinical decision-making determines the medical condition:
 - Requires an in-person evaluation that cannot be managed virtually or telephonically
 - Does not rise to the level requiring Emergency Care
 - Can be transported by personal vehicle or ambulance

***Patients must wear a procedure mask at all times while in a medical center or clinic (including while entering facility) if they present within 21 days of the initial diagnostic PCR test (positive or negative).**

***Healthcare providers caring for COVID-19 positive patients should wear a procedure mask and gloves during the entire clinic visit if patients present within 21 days of initial diagnostic PCR test.**

***Full Droplet Precautions (gloves, procedural mask, gown, face shield/goggles) may be required for certain procedural areas. Consult your Infection Prevention and Control team for further guidance; if you would like the HFPN to investigate, please contact us through email at HFPNHelp@hfhs.org.**

What treatment should be offered to homebound COVID-19 patients with mild disease?

Those with symptoms such as:

- Cough
- Myalgia
- Fever if no dyspnea
- Pulse ox (if available is >94% on RA or better yet with exertion)
- No pulmonary infiltrates (if radiography performed)

Recommendations include:

- Social distancing
- Symptom relief of cough with: vaporizer, humidifier, inhalers, dextromethorphan if dry cough, guaifenesin for productive cough. Acetaminophens or NSAIDs for symptom relief

Should NSAIDs be avoided in patients with COVID-19 infection?

There was some initial concern that NSAIDs could worsen the course of illness in COVID-positive patients. However, recent FDA communication reiterates that ultimately the risk-benefit assessment for using NSAIDs in patients should not be influenced by COVID-19 disease status alone.

Are ACEi/ARB safe to use in COVID-19 positive patients?

Likewise, there was initial theoretical concern that ACEi/ARB could be harmful in patients with Covid-19 infection. ACE-2 serves as a binding site for coronavirus uptake in human cells, allowing viral replication. However, the evidence is not there to commence COVID-19 patients on these agents unless they have other indications for such therapy. For patients already on ACEi/ARB covid-19 infection is not an indication to discontinue these agents. Additionally, the European Society of Cardiology put out a statement to refute any potential negative connections and advocates for managing patients' ACEi/ARB therapy similarly regardless of their COVID-19 disease. Therefore, the decision to continue or start ACEi/ARB should not be made based on COVID-19 status.

Should hydroxychloroquine or azithromycin be started in the ambulatory setting?

We do not recommend starting hydroxychloroquine and/or azithromycin for either prophylaxis or treatment of COVID-19 as both have unproven efficacy and significant toxicities. Both drugs prolong QTc and can result in Torsades de Pointe; caution should be used when prescribing either agent for non-COVID-19 related indications especially for patients who have risk factors for sudden cardiac death. These drugs have a long half-life, especially hydroxychloroquine, which is up to 50 days. Other adverse effects of hydroxychloroquine include anxiety, glycemic alterations, depression, psychosis, seizures and hepatic injury.

Should hydroxychloroquine treatment started during hospitalization be continued in the ambulatory setting?

Given the prolonged half-life of the drug, patients should not be discharged on hydroxychloroquine.

What is the role of steroids in the treatment of COVID-19?

Steroids are controversial in the setting of COVID-19 but may have a role to play in the setting of hospitalized patients who experience cytokine storm. There is no data that outpatient prophylactic steroids will prevent this clinical deterioration. For patients who received steroids in-house but did not complete a course of therapy this could be continued at home for no more than a total (inpatient and outpatient) of 7 days.

What infection control precautions should COVID-19 positive patients take at home to protect their families?

The goal is physical isolation within the home, ideally using a separate bed, bedroom and bathroom, if feasible. Frequent cleaning of high-use surfaces such as counters and doorknobs. Also, they should avoid sharing household items such as dishes, cups/glasses, silverware, towels, bedding or electronics with the person who is sick. If there is face-to-face interaction, the positive patient should wear a mask, as should the other family members. In dealing with personal care, caregiver to wear gloves and mask.

How long should physical isolation within the home be continued?

Isolation should be maintained at home for 21 days after initial test.

What is the respiratory care of the COVID-19 patient post-hospital discharge?

Patients recovering from COVID-19 pneumonia should be counseled that their return to normal respiratory health may be protracted especially in the presence of other underlying chronic respiratory illnesses. They may require bronchodilators or inhaled corticosteroids for the same indications you are familiar with.

What is the management of COVID-19 patients who have recovered enough for discharge from the hospital, but still require supplemental oxygen at home?

Recommendations for these patients includes the following:

- Continue home oxygen until pulse ox is consistently above 94%, preferably with activity
- Can consider discontinuing if patient significantly improved clinically and pulse ox not available.
- If O2 requirements persist for 4 weeks or more, patient should be referred to pulmonary medicine.

What do I do if my patient is pregnant?

Although there remains concern about pregnant women who have other viral infections during pregnancy, pregnant women do not appear to be at increased risk for COVID-19 (from limited observations). Vertical transmission, if it occurs, appears to be rare. For pregnant women, recommend close follow-up with OB/GYN.

Is breastfeeding a mode of transmission of COVID-19 to the baby?

There are risks of a COVID-19 infected mother passing along COVID while lactating via droplets from the mother's respiratory tract. It is recommended that if the infected mother cannot express breast milk and have someone else feed the baby, she should practice hand hygiene and wear a mask to prevent droplet transmission. The virus has not been reported to be present in breast milk (in limited studies). Breast milk is still preferred to formula for most infants.

What special precautions does a COVID-19 patient need to prepare for surgery or a procedure?

Please consult with the surgeon or proceduralist to evaluate "time-sensitivity" of planned procedure. All pending surgical procedures are being individually evaluated by the surgical teams.

What are other concerns in the ambulatory setting for COVID-19 patient care?

COVID-19 patients are hypercoagulable so a high index of suspicion should be given for blood clots or thromboembolism either present on presentation or as a late

complication. Additionally, secondary bacterial pneumonia may occur post hospitalization.

If a COVID-19 positive or COVID-suspected patient needs to be seen in the office, how can I protect my staff and myself?

Universal masking with a surgical (procedural) mask for BOTH the provider and patient confer adequate protection for routine visits. For non-aerosol generating procedures an N-95 mask is not necessary.

For the first 21 days following a patient's COVID-19 positive test, it is recommended that ambulatory providers also wear gloves when interacting with the patient. Always remember that gloves are not a substitute for hand hygiene.

Special considerations for symptomatic COVID-19 positive patients who are also part of the HFHS workforce or other health care workforces.

For HFHS employees, if the patient remains symptomatic without enough improvement for Employee Health to clear them for return to work they may be directed to follow-up with their primary care physician. Please evaluate for complications of COVID-19 as noted above.

- Current return to work policy states the employee may return 10 days after onset of symptoms *and* three days without symptoms such as fever, chills, etc.
- If symptoms require care or persist >14 days, the employee will be referred to primary care physician for treatment and determination of return to work dates
- HFHS Employee Health will continue to follow employee to understand return to work info and date.

For patients who work in healthcare settings outside of HFHS please follow the same course of action, always asking the patient to keep in contact with their employee health department for any further testing requirements and back-to-work criteria.

If you have further questions about COVID-19 and patient care please contact Infectious Diseases via e-consultation in Epic. For more urgent concerns, please call the Infectious Diseases doctor on call at your site.

For questions regarding weaning O2 in the ambulatory setting, please contact pulmonology at your site.

For questions regarding anticoagulation, please contact hematology at your site.

For patients who are also part of the HFHS workforce, please consult with Employee Health for return-to-work advice.