

Important Information on COVID-19 for Ambulatory Clinicians



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Clinical features of COVID-19 (SARS -CoV2)

The clinical spectrum of COVID-19 ranges from mild disease with non-specific symptoms of acute respiratory illness to respiratory failure and septic shock. Asymptomatic infection with COVID-19 is common although the incidence is not known given the current limited availability of testing.

The incubation period following exposure is typically 4-5 days but may be as long as 14 days. In patients that progress to more severe disease, hospital admission typically occurs around day 7.

Fever and fatigue are the most common presenting symptoms often followed by dry cough and dyspnea. Other non-specific symptoms such as myalgias are common. GI symptoms have been reported but almost always accompanied or followed by respiratory symptoms. Anosmia and loss of taste have been suggested in case reports and if occurring in the absence of other known causes such as allergic rhinitis or sinusitis should prompt consideration of COVID-19 infection.

- Mild illness incidence around 80%
- Severe disease, associated with dyspnea, hypoxemia and/or significant lung infiltration, incidence around 15%
- Critical illness, associated with respiratory failure, ARDS, and/or shock incidence around 5%

Risk of Disease based on Age and Co-morbidities

Adults from 30-80 years of age account for 65-80% of confirmed cases with 80% of deaths occurring in persons aged 65 years or older. Only 2-5% of cases have been noted in patients less than 20 years of age and generally illness has been mild in nature.

Based upon available information to date, those at high-risk for severe illness from COVID-19 include:

- People aged 65 years and older
- People who live in a nursing home or long-term care facility
- Other high-risk conditions could include:

- People with chronic lung disease or moderate to severe asthma
- People who have heart disease with complications
- People who are immunocompromised including cancer treatment
- People of any age with severe obesity (body mass index [(BMI)] \geq 40) or certain underlying medical conditions, particularly if not well controlled, such as those with diabetes, renal failure, or liver disease might also be at risk
- People who are pregnant should be monitored since they are known to be at risk with severe viral illness, however, to date data on COVID-19 has not shown increased risk

Specific Treatment Considerations for COVID-19 patients in the Ambulatory setting

- All patients should remain on their regularly prescribed medications. Optimal control of chronic disease is critical and despite published opinion pieces or news articles there is no evidence to support stopping inhaled steroids, or ACE/ARB therapy to either lessen the risk or severity of COVID-19.
- Treatment is supportive for non-hospitalized patients with COVID-19
- There are no established pharmacological treatments for COVID-19 that are recommended for patients in the ambulatory setting at this time. Discussion of treatment for hospitalized patients is below.
- Patients may seek specific treatments such as Hydroxychloroquine, quinine, or combination of those with azithromycin, based on recent news reports. At this point these treatments should be avoided for ambulatory patients given the lack of evidence for efficacy AND potential drug supply limitations for those more ill in the community.
- Oral steroids have not been shown to be helpful in treatment and should be avoided specifically for COVID 19. These may be considered for alternative diagnosis such as exacerbations of chronic lung disease.
- Oseltamivir is not effective for COVID 19.
- Tylenol should be used for fever control. NSAID's should be avoided unless someone is already using them regularly for a chronic condition in good control.
- Patients that are chronically on immunosuppressive agents, including inhaled and systemic steroids, should continue treatment.
- Nebulized formulations of medications carry a higher risk of aerosolization of particles. If possible, patients should utilize MDI's for acute management of symptoms even if the medication is expired.
- For patients who require nebulized formulations of medications (due to lack of efficacy or availability of MDI's) for ongoing control they should be advised to use them in an isolated section of their home, preferably a garage or patio,

and minimize exposure to other family members to that location. Aerosol droplets may remain in circulation for 2-3 hours.

- Nebulized formulations in a healthcare setting should be administered only in an isolated setting with clear procedures regarding specialized PPE utilization for high risk aerosolization.
- Patients on CPAP with COVID-19 infection should discuss options with you and their Sleep Medicine physician.
- Patients chronically on agents to control their cardiovascular disease such as aspirin and ACE/ARB should be continued on these agents unless their clinical status dictates otherwise.

Pharmacologic Considerations for hospitalized COVID-19 patients

- This information is presented to help providers understand current considerations and explain to patients the state of science.
- The following treatments have been evaluated in hospitalized patients with unclear results to date. A separate inpatient management guideline will also be available.
- **Hydroxychloroquine**- this drug has been shown to inhibit replication of SARS-CoV2 in vitro. This drug is generally inexpensive, well tolerated, and has minimal drug-drug interactions. It is being considered as first line treatment for patients with moderate to severe disease. QTc prolongation is a side effect and requires monitoring. More studies are underway to understand efficacy.
- **Remdesivir**- Has been shown to inhibit SARS-CoV2 in vitro. Case reports suggest improvement, but larger clinical trial data is not available. Remdesivir is currently available only through clinical trials or through a compassionate use application with inclusion criteria of hospitalization, confirmed infection and invasive mechanical ventilation.
- **Lopinavir/Ritonavir (Kaletra)**- Recently published data in a randomized, controlled, open-label study of COVID-19 patients with severe disease, Lopinavir/Ritonavir did not demonstrate a significant difference in clinical improvement or mortality.

Admission Criteria for patients with COVID-19

Most patients with COVID-19 will not require hospitalization and can be managed with supportive care and measures in place for careful monitoring.

Progression of dyspnea and/or hypoxemia are concerning signs that require further evaluation for acute management and/or hospitalization. Disposition will be determined on a case by case basis taking into consideration underlying chronic conditions, the ability for self-care at home and their ability to engage in monitoring.

Discontinuation of Isolation precautions for patients with COVID-19

The following guidelines are published on the CDC website, last revised March 23rd, 2020.

The decision to discontinue home isolation should be made in the context of local circumstances. Options now include both:

- 1) time-since-illness-onset and time-since-recovery (non-test-based) strategy
- 2) test-based strategy.

1. Time-since-illness-onset and time-since-recovery strategy (non-test-based strategy) Persons with COVID-19 who have symptoms and were directed to care for themselves at home may discontinue home isolation under the following conditions:

- At least 3 days (72 hours) have passed *since recovery* defined as resolution of fever without the use of fever-reducing medications **and** improvement in respiratory symptoms (e.g., cough, shortness of breath); **and**,
- At least 7 days have passed *since symptoms first appeared*.

2. Test-based strategy

Persons who have COVID-19 who have symptoms and were directed to care for themselves at home may discontinue home isolation under the following conditions:

- Resolution of fever without the use of fever-reducing medications **and**
- Improvement in respiratory symptoms (e.g., cough, shortness of breath) **and**
- Negative results of an FDA Emergency Use Authorized molecular assay for COVID-19 from at least two consecutive nasopharyngeal swab specimens collected ≥ 24 hours apart** (total of two negative specimens).

Individuals with laboratory-confirmed COVID-19 who have not had any symptoms may discontinue home isolation when at least 7 days have passed since the date of their first positive COVID-19 diagnostic test and have had no subsequent illness.