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A Summary of Outpatient Recommendations for COVID-19 Patients and Providers December 9, 2021

Richard A. Robbins MD
Stephen A. Klotz MD

¹Phoenix Pulmonary and Critical Care Research and Education Foundation, Gilbert, AZ USA

²Division of Infectious Disease, Department of Medicine, University of Arizona College of Medicine, Tucson, AZ USA

We thought a follow-up to our original brief review of COVID-19 in February, 2020 might be useful. As we write this in early December 2021, we again caution that this area is rapidly changing and what is true today will likely be outdated tomorrow. We again borrowed heavily from the Centers for Disease Control (CDC) [CDC website](https://www.cdc.gov) and the [NIH website](https://www.nih.gov) which have extensive discussions over numerous pages covering COVID-19. Our hope is to condense those recommendations. We do not discuss inpatient care in any detail.

COVID-19 Variants

The initial steps of coronavirus infection involve the specific binding of the coronavirus spike (S) protein to the cellular entry receptors which are normally on a cell. These include human aminopeptidase N (APN; HCoV-229E), angiotensin-converting enzyme 2 (ACE2; HCoV-NL63, SARS-CoV and SARS-CoV-2) and dipeptidyl peptidase 4 (DPP4; MERS-CoV).

All viruses, but especially simple single-stranded RNA viruses like COVID-19, constantly change through mutation resulting in new variants (1). The variants vary in severity and infectivity. The CDC, World Health Organization (WHO), and other public health organizations monitor COVID-19 for emergence of new variants. Some variants emerge and disappear while others persist.

The Delta variant causes more infections and spreads faster than the original SARS-CoV-2 strain of the virus that cause COVID-19 (2). Delta is currently the predominant variant of the virus in the United States causing over 99% of infections (2). On November 24, 2021, a new variant of SARS-CoV-2, B.1.1.529, was reported to the World Health Organization (WHO). This new variant was first detected in specimens collected on November 11, 2021 in Botswana and on November 14, 2021 in South Africa. On November 26, 2021, WHO named the B.1.1.529 Omicron and classified it as a variant of concern because of the number of

mutations on the spike protein. As of this yesterday morning (12/8/21), the first Omicron case was reported in Arizona (2). Omicron is also present in California, Utah and Colorado and probably several other states since there is a lag between the presence of the virus and detection.

Early reports have suggested the Omicron variant might cause milder disease more often in children, raising hopes that the variant might be less severe than some of its predecessors (3). Dr. Müge Çevik, an infectious-disease specialist at the University of St Andrews, UK cautions, “Everyone is trying to find some data that could guide us but it’s very difficult at the moment.”

Symptoms

People with COVID-19 have had a wide range of symptoms reported – from none to severe illness (2). Symptoms may appear 2-14 days after exposure to the virus. Symptoms of flu and COVID-19 may be very similar and it may be hard to tell the difference between them based on symptoms alone. Testing may be needed to help confirm a diagnosis. COVID-19 seems to spread more easily than flu and causes more serious illnesses in some people. It can also take longer before people show symptoms and people can be contagious for longer. Despite mild symptoms, people infected with COVID-19 can still infect others.

Testing

Two types of viral tests are used: nucleic acid amplification tests and antigen tests (2). A viral test checks specimens from the nose or mouth by first reverse transcribing the RNA to DNA and then amplifying the DNA by polymerase chain reaction. COVID-19 antigen tests are designed for the rapid diagnosis of active infection primarily by detecting the nucleocapsid protein antigen of the SARS-CoV-2 virus. People who develop symptoms or have come into close contact

with someone with COVID-19 should be tested 5–7 days after their last exposure or immediately if symptoms develop.

Prevention

The CDC recommends several steps for prevention of COVID-19 (2).

Get Vaccinated. COVID-19 vaccines are protective against COVID-19, especially severe disease and death. Boosters should be administered as soon as possible.

Wear a mask. Everyone 2 years or older who is not fully vaccinated should wear a mask in indoor public places. In general, masks are unnecessary in outdoor settings.

However, in areas with high numbers of COVID-19 cases, consideration should be given to wearing a mask in crowded outdoor settings and for activities with close contact with others who are not fully vaccinated.

Stay 6 feet away from others. Whenever possible, people should stay 6 feet away from others especially those who are sick. If possible, patients should be advised to maintain 6 feet between sick family members.

Avoid crowds and poorly ventilated spaces. Crowded places like restaurants, bars, fitness centers, or movie theaters are high risk areas for spread of COVID-19. Indoor spaces that do not offer fresh air from the outdoors should be avoided.

Test to prevent spread to others. Testing provides information about the risk of spreading COVID-19. Over-the-counter self-tests can be used at home or anywhere, are easy to use, and produce rapid results.

Wash Hands Often. Hands should be washed often with soap and water after the patient blows their nose, coughs, sneezes, or is exposed to any public place.

Clean and disinfect. High touch surfaces should be cleaned and disinfected regularly or as needed. This includes tables,

doorknobs, light switches, countertops, handles, desks, phones, keyboards, toilets, faucets, and sinks.

Specific Groups

Any immunocompromised group or group living in close contact is at increased risk for COVID-19 infection and complications of the infection (2). This includes asthma, pregnancy, the elderly (>65 years), nearly all chronic diseases and jails or prisons.

Holidays

With Holiday gatherings here, many are concerned about COVID-19 especially with an unvaccinated relative or guest. First, the CDC recommends they get vaccinated (2). Second follow the recommendations under prevention above.

COVID-19 Patients

Patients with COVID-19, should follow the steps under prevention above (2). In addition, they stay home for 10 days after symptoms appear except to get medical care. Patients should be advised to drink fluids, take over-the-counter medications for symptomatic relief, and go to the emergency room or a physician's office if needed, but call ahead. They should tell their close contacts that they may have been exposed to COVID-19.

COVID-19 Exposure

Patients should quarantine if you have been in close contact (within 6 feet of someone for a cumulative total of 15 minutes or more over a 24-hour period) with someone who has COVID-19, unless they are fully vaccinated (2). People who are fully vaccinated do not need to quarantine after contact with someone who had COVID-19 unless they have symptoms.

Travel

At this time patients should delay travel by bus, train, plane or ship unless fully vaccinated.

Treatment

The NIH has convened a COVID-19 Treatment Guidelines Panel (4). They recommend*:

COVID-19 vaccination for everyone who is eligible according to the Advisory Committee on Immunization Practices (AI).

Using one of the following anti-SARS-CoV-2 monoclonal antibodies (as post-exposure prophylaxis (PEP) for people who are at high risk of progressing to severe COVID-19:

Bamlanivimab 700 mg plus etesevimab 1,400 mg administered as an intravenous (IV) infusion (BIII).
Casirivimab 600 mg plus imdevimab 600 mg administered as subcutaneous injections (AI) or an IV infusion (BIII).

Do not use hydroxychloroquine for SARS-CoV-2 PEP (AI).

Do not use of other drugs for SARS-CoV-2 PEP, except in a clinical trial (AIII).

Do not use any drugs for SARS-CoV-2 pre-exposure prophylaxis, except in a clinical trial (AIII).

* Rating of Recommendations: A = Strong; B = Moderate; C = Optional Rating of Evidence; I = One or more randomized trials without major limitations; IIa = Other randomized trials or subgroup analyses of randomized trials; IIb = Nonrandomized trials or observational cohort studies; III = Expert opinion

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