

Updating Outpatient Recommendations in COVID-19 Management: Identifying Opportunities for Risk Reduction in Nonhospitalized Patients

Resource	Address
Agency for Healthcare Research and Quality (AHRQ). The Consumer Assessment of Healthcare Providers and Systems (CAHPS) ambulatory care improvement guide.	www.ahrq.gov/sites/default/files/wysiwyg/cahps/quality-improvement/improvement-guide/6-strategies-for-improving/communication/cahps-strategy-section-6-i.pdf
Agency for Healthcare Research and Quality (AHRQ). The SHARE Approach.	https://www.ahrq.gov/sites/default/files/wysiwyg/professionals/education/curriculum-tools/shareddecisionmaking/tools/shareposter/shareposter.pdf
Ahmad FB, Cisewski JA, Anderson RN. Provisional Mortality Data — United States, 2021. <i>MMWR Morb Mortal Wkly Rep</i> 2022;71:597-600. DOI: http://dx.doi.org/10.15585/mmwr.mm7117e1external icon .	https://www.cdc.gov/mmwr/volumes/71/wr/mm7117e1.htm#suggestedcitation
Baang JH, Smith C, Mirabelli C, et al. Prolonged Severe Acute Respiratory Syndrome Coronavirus 2 Replication in an Immunocompromised Patient. <i>J Infect Dis</i> . 2021;223(1):23-27. doi:10.1093/infdis/jiaa666	https://pubmed.ncbi.nlm.nih.gov/33089317/
Bierle DM, Ganesh R, Wilker CG, et al. Influence of Social and Cultural Factors on the Decision to Consent for Monoclonal Antibody Treatment among High-Risk Patients with Mild-Moderate COVID-19. <i>J Prim Care Community Health</i> . 2021;12:21501327211019282. doi:10.1177/21501327211019282	https://pubmed.ncbi.nlm.nih.gov/34032171/
Cao Z, Gao W, Bao H, et al. VV116 versus Nirmatrelvir–Ritonavir for Oral Treatment of Covid-19. <i>N Engl J Med</i> . 2022;388(5):406-417. doi:10.1056/NEJMoa2208822	https://www.nejm.org/doi/full/10.1056/NEJMoa2208822
CDC. Clinical Course. Clinical considerations for care of children and adults with confirmed COVID-19. December 5, 2022	www.cdc.gov/coronavirus/2019-ncov/hcp/clinical-care/clinical-considerations-course.html

<p>CDC. Clinical presentation. Clinical considerations for care of children and adults with confirmed COVID-19. October 19, 2022</p>	<p>www.cdc.gov/coronavirus/2019-ncov/hcp/clinical-care/clinical-considerations-presentation.html</p>
<p>CDC. How COVID spreads</p>	<p>www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/how-covid-spreads.html</p>
<p>CDC. Medical conditions.</p>	<p>www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/people-with-medical-conditions.html</p>
<p>CDC. People with certain medical conditions.</p>	<p>www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/people-with-medical-conditions.html</p>
<p>CDC. HIV and COVID-19 basics.</p>	<p>www.cdc.gov/hiv/basics/covid-19.html</p>
<p>Cevik M, Kuppalli K, Kindrachuk J, Peiris M. Virology, transmission, and pathogenesis of SARS-CoV-2. <i>BMJ</i>. 2020;371:m3862. Published 2020 Oct 23. doi:10.1136/bmj.m3862</p>	<p>https://pubmed.ncbi.nlm.nih.gov/33097561/</p>
<p>Cheng A, Caruso D, McDougall C. Outpatient Management of COVID-19: Rapid Evidence Review. <i>Am Fam Physician</i>. 2020;102(8):478-486.</p>	<p>https://pubmed.ncbi.nlm.nih.gov/33064422/</p>
<p>Cheng MP, Papenburg J, Desjardins M, et al. Diagnostic Testing for Severe Acute Respiratory Syndrome-Related Coronavirus 2: A Narrative Review. <i>Ann Intern Med</i>. 2020;172(11):726-734. doi:10.7326/M20-1301</p>	<p>https://pubmed.ncbi.nlm.nih.gov/32282894/</p>
<p>Danis K, Epaulard O, Bénet T, et al. Cluster of Coronavirus Disease 2019 (COVID-19) in the French Alps, February 2020. <i>Clin Infect Dis</i>. 2020;71(15):825-832. doi:10.1093/cid/ciaa424</p>	<p>https://pubmed.ncbi.nlm.nih.gov/32277759/</p>
<p>Dryden-Peterson S, Kim A, Kim AY, et al. Nirmatrelvir Plus Ritonavir for Early COVID-19 in a Large U.S. Health System: A Population-Based Cohort Study [published online ahead of print, 2022 Dec 13]. <i>Ann Intern Med</i>. 2022;M22-2141. doi:10.7326/M22-2141</p>	<p>https://pubmed.ncbi.nlm.nih.gov/36508742/</p>

<p>Du Toit A. Outbreak of a novel coronavirus. <i>Nature Reviews Microbiology</i>. 2020;18(3):123-123. doi:10.1038/s41579-020-0332-0</p>	<p>https://www.nature.com/articles/s41579-020-0332-0</p>
<p>Gandhi RT, Lynch JB, Del Rio C. Mild or Moderate Covid-19. <i>N Engl J Med</i>. 2020;383(18):1757-1766. doi:10.1056/NEJMcp2009249</p>	<p>https://pubmed.ncbi.nlm.nih.gov/32329974/</p>
<p>Gottlieb RL, Vaca CE, Paredes R, et al. Early Remdesivir to Prevent Progression to Severe Covid-19 in Outpatients. <i>N Engl J Med</i>. 2022;386(4):305-315.</p>	<p>https://pubmed.ncbi.nlm.nih.gov/34937145/</p>
<p>Hammond J, Leister-Tebbe H, Gardner A, et al. Oral Nirmatrelvir for High-Risk, Nonhospitalized Adults with Covid-19. <i>NEJM</i>. 2022; 386 (15): 1397-408.</p>	<p>https://pubmed.ncbi.nlm.nih.gov/35172054/</p>
<p>Hamner L, Dubbel P, Capron I, et al. High SARS-CoV-2 Attack Rate Following Exposure at a Choir Practice - Skagit County, Washington, March 2020. <i>MMWR Morb Mortal Wkly Rep</i>. 2020;69(19):606-610. Published 2020 May 15. doi:10.15585/mmwr.mm6919e6</p>	<p>https://pubmed.ncbi.nlm.nih.gov/32407303/</p>
<p>Harpaz R, Dahl RM, Dooling KL. Prevalence of Immunosuppression Among US Adults, 2013. <i>JAMA</i>. 2016;316(23):2547-2548. doi:10.1001/jama.2016.16477</p>	<p>https://pubmed.ncbi.nlm.nih.gov/27792809/</p>
<p>Hensley MK, Bain WG, Jacobs J, et al. Intractable Coronavirus Disease 2019 (COVID-19) and Prolonged Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) Replication in a Chimeric Antigen Receptor-Modified T-Cell Therapy Recipient: A Case Study. <i>Clin Infect Dis</i>. 2021;73(3):e815-e821. doi:10.1093/cid/ciab072</p>	<p>https://pubmed.ncbi.nlm.nih.gov/33507235/</p>
<p>IDSA. Anti-SARS-CoV-2 Monoclonal Antibodies. 2022</p>	<p>https://www.idsociety.org/covid-19-real-time-learning-network/therapeutics-and-interventions/monoclonal-antibodies/</p>
<p>Imam Z, Odish F, Gill I, et al. Older age and comorbidity are independent mortality predictors in a large cohort of 1305 COVID-</p>	<p>https://pubmed.ncbi.nlm.nih.gov/32498135/</p>

<p>19 patients in Michigan, United States. <i>J Intern Med.</i> 2020;288(4):469-476. doi:10.1111/joim.13119</p>	
<p>Jayk BA, Gomes da Silva MM, Musungaie DB, et al. Molnupiravir for Oral Treatment of Covid-19 in Nonhospitalized Patients. <i>N Engl J Med.</i> 2022;386(6):509-520.</p>	<p>https://pubmed.ncbi.nlm.nih.gov/34914868/</p>
<p>Li Q, Guan X, Wu P, et al. Early Transmission Dynamics in Wuhan, China, of Novel Coronavirus-Infected Pneumonia. <i>N Engl J Med.</i> 2020;382(13):1199-1207. doi:10.1056/NEJMoa2001316</p>	<p>https://pubmed.ncbi.nlm.nih.gov/31995857/</p>
<p>Merck Sharp & Dohme LLC. Fact sheet for healthcare providers: emergency use authorization for Lagevrio™ (molnupiravir) capsules. 2022</p>	<p>https://www.fda.gov/media/155054/download</p>
<p>National Institutes of Health (NIH). COVID-19 treatment guidelines. 2022</p>	<p>https://www.covid19treatmentguidelines.nih.gov/</p>
<p>National Institutes of Health. Outpatient management of acute COVID-19. Updated 9/26/2022</p>	<p>www.covid19treatmentguidelines.nih.gov/outpatient-management/</p>
<p>Ng WH, Tipih T, Makoah NA, et al. Comorbidities in SARS-CoV-2 Patients: a Systematic Review and Meta-Analysis. <i>mBio.</i> 2021;12(1):e03647-20. Published 2021 Feb 9. doi:10.1128/mBio.03647-20</p>	<p>https://pubmed.ncbi.nlm.nih.gov/33563817/</p>
<p>Pan Y, Zhang D, Yang P, Poon LLM, Wang Q. Viral load of SARS-CoV-2 in clinical samples. <i>Lancet Infect Dis.</i> 2020;20(4):411-412. doi:10.1016/S1473-3099(20)30113-4</p>	<p>https://pubmed.ncbi.nlm.nih.gov/32105638/</p>
<p>Paxlovid. [prescribing information]. Pfizer:New York, NY. 2023.</p>	<p>https://labeling.pfizer.com/ShowLabeling.aspx?id=16474&format=pdf</p>
<p>Remdesivir (Veklury®) prescribing information (PI), October 2022.</p>	<p>www.gilead.com/-/media/files/pdfs/medicines/covid-19/veklury/veklury_pi.pdf</p>
<p>Shah MM, Joyce B, Plumb ID, et al. Paxlovid Associated with Decreased Hospitalization Rate Among Adults with COVID-19 - United States, April-September 2022. <i>MMWR Morb Mortal Wkly Rep.</i> 2022;71(48):1531-1537. Published 2022 Dec 2. doi:10.15585/mmwr.mm7148e2</p>	<p>https://pubmed.ncbi.nlm.nih.gov/36454693/</p>

<p>Shim E, Tariq A, Choi W, Lee Y, Chowell G. Transmission potential and severity of COVID-19 in South Korea. <i>Int J Infect Dis.</i> 2020;93:339-344. doi:10.1016/j.ijid.2020.03.031</p>	<p>https://pubmed.ncbi.nlm.nih.gov/32198088/</p>
<p>Siddiqi HK, Mehra MR. COVID-19 illness in native and immunosuppressed states: A clinical-therapeutic staging proposal. <i>J Heart Lung Transplant.</i> 2020;39(5):405-407. doi:10.1016/j.healun.2020.03.012</p>	<p>https://pubmed.ncbi.nlm.nih.gov/32362390/</p>
<p>Stokes EK, Zambrano LD, Anderson KN, et al. Coronavirus Disease 2019 Case Surveillance - United States, January 22-May 30, 2020. <i>MMWR Morb Mortal Wkly Rep.</i> 2020;69(24):759-765. Published 2020 Jun 19. doi:10.15585/mmwr.mm6924e2</p>	<p>https://pubmed.ncbi.nlm.nih.gov/32555134/</p>
<p>Tartof SY, Qian L, Hong V, et al. Obesity and Mortality Among Patients Diagnosed With COVID-19: Results From an Integrated Health Care Organization. <i>Ann Intern Med.</i> 2020;173(10):773-781. doi:10.7326/M20-3742</p>	<p>https://pubmed.ncbi.nlm.nih.gov/32783686/</p>
<p>US Census Bureau. U.S. Adult Population Grew Faster Than Nation's Total Population From 2010 to 2020. August 12, 2021</p>	<p>www.census.gov/library/stories/2021/08/united-states-adult-population-grew-faster-than-nations-total-population-from-2010-to-2020.html</p>
<p>V'kovski P, Kratzel A, Steiner S, Stalder H, Thiel V. Coronavirus biology and replication: implications for SARS-CoV-2. <i>Nature Reviews Microbiology.</i> 2021;19(3):155-170. doi:10.1038/s41579-020-00468-6</p>	<p>https://www.nature.com/articles/s41579-020-00468-6</p>
<p>Wang D, Hu B, Hu C, et al. Clinical Characteristics of 138 Hospitalized Patients With 2019 Novel Coronavirus-Infected Pneumonia in Wuhan, China [published correction appears in JAMA. 2021 Mar 16;325(11):1113]. <i>JAMA.</i> 2020;323(11):1061-1069. doi:10.1001/jama.2020.1585</p>	<p>https://pubmed.ncbi.nlm.nih.gov/32031570/</p>
<p>Williams V. What does supportive care mean for patients with COVID-19?. <i>Mayo Clinic News Network.</i> March 26, 2020.</p>	<p>https://newsnetwork.mayoclinic.org/discussion/what-does-supportive-care-mean-for-patients-with-covid-19/</p>

<p>Williamson EJ, Walker AJ, Bhaskaran K, et al. Factors associated with COVID-19-related death using OpenSAFELY. <i>Nature</i>. 2020;584(7821):430-436. doi:10.1038/s41586-020-2521-4</p>	<p>https://pubmed.ncbi.nlm.nih.gov/32640463/</p>
<p>Wölfel R, Corman VM, Guggemos W, et al. Virological assessment of hospitalized patients with COVID-2019 [published correction appears in <i>Nature</i>. 2020 Dec;588(7839):E35]. <i>Nature</i>. 2020;581(7809):465-469. doi:10.1038/s41586-020-2196-x</p>	<p>https://pubmed.ncbi.nlm.nih.gov/32235945/</p>
<p>Wu Z, McGoogan JM. Characteristics of and Important Lessons From the Coronavirus Disease 2019 (COVID-19) Outbreak in China: Summary of a Report of 72 314 Cases From the Chinese Center for Disease Control and Prevention. <i>JAMA</i>. 2020;323(13):1239-1242. doi:10.1001/jama.2020.2648</p>	<p>https://pubmed.ncbi.nlm.nih.gov/32091533/</p>
<p>Wyllie AL, Fournier J, Casanovas-Massana A, et al. Saliva or Nasopharyngeal Swab Specimens for Detection of SARS-CoV-2. <i>N Engl J Med</i>. 2020;383(13):1283-1286. doi:10.1056/NEJMc2016359</p>	<p>https://pubmed.ncbi.nlm.nih.gov/32857487/</p>
<p>Zhou F, Yu T, Du R, et al. Clinical course and risk factors for mortality of adult inpatients with COVID-19 in Wuhan, China: a retrospective cohort study [published correction appears in <i>Lancet</i>. 2020 Mar 28;395(10229):1038] [published correction appears in <i>Lancet</i>. 2020 Mar 28;395(10229):1038]. <i>Lancet</i>. 2020;395(10229):1054-1062. doi:10.1016/S0140-6736(20)30566-3</p>	<p>https://pubmed.ncbi.nlm.nih.gov/32171076/</p>
<p>Zou L, Ruan F, Huang M, et al. SARS-CoV-2 Viral Load in Upper Respiratory Specimens of Infected Patients. <i>N Engl J Med</i>. 2020;382(12):1177-1179. doi:10.1056/NEJMc2001737</p>	<p>https://pubmed.ncbi.nlm.nih.gov/32074444/</p>