Prioritization of Anti-SARS-CoV-2 Therapies for the Treatment of COVID-19 in Nonhospitalized Patients When There Are Logistical Constraints

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The prioritization guidance in this section should be used **only** when logistical constraints limit the availability of therapies. When there are no logistical constraints, clinicians can prescribe therapies to treat SARS-CoV-2 infection to any eligible individual following the recommendations in these Guidelines.

If it is necessary to triage patients for receipt of anti-SARS-CoV-2 therapies, the COVID-19 Treatment Guidelines Panel (the Panel) suggests prioritizing patients based on their clinical risk factors for severe disease, their vaccination status, and their ability to mount an adequate immune response to COVID-19 vaccination or SARS-CoV-2 infection.

Prioritization schemes should include a plan for equitable distribution of scarce resources to individuals who may have less knowledge of or access to these therapies. The availability and distribution of recommended therapies should be monitored to ensure that access to products is equitable.

Patient Prioritization for Treatment

The Panel recommends using **ritonavir-boosted nirmatrelvir (Paxlovid)** to treat nonhospitalized adults **(AIIa)** and adolescents **(BIII)** who have mild to moderate COVID-19 and are at high risk of progressing to severe disease.

Remdesivir is a recommended option if ritonavir-boosted nirmatrelvir cannot be used. However, some treatment facilities may not have the ability to provide a 3-day course of remdesivir intravenous infusions to all eligible patients. In these situations, prioritizing patients who will benefit the most from the therapy becomes necessary. If administration of remdesivir is not feasible, clinicians should review the Panel's recommendations in Therapeutic Management of Nonhospitalized Adults With COVID-19 for alternative treatment options.

The prioritization scheme below is based on 4 key elements: age, vaccination status, immune status, and clinical risk factors. For a list of risk factors, see the Centers for Disease Control and Prevention (CDC) webpage Underlying Medical Conditions Associated With Higher Risk for Severe COVID-19. The groups are listed by tier in descending order of priority.

Tier	Risk Group
1	• People who are immunocompromised and are not expected to mount an adequate immune response to COVID-19 vaccination or SARS-CoV-2 infection due to their underlying conditions, regardless of vaccine status (see Immunocompromising Conditions below); *or* • Unvaccinated individuals at the highest risk of severe disease (anyone aged ≥75 years or anyone aged ≥65 years with additional risk factors)
2	• Unvaccinated individuals not included in Tier 1 who are at risk of severe disease (anyone aged ≥65 years or anyone aged <65 years with clinical risk factors)
3	• Vaccinated individuals at risk of severe disease (anyone aged ≥65 years or anyone aged <65 years with clinical risk factors) • Vaccinated individuals who are not up to date with their immunizations are likely at higher risk for severe disease; patients within this tier who are in this situation should be prioritized for treatment.

Immunocompromising Conditions

The CDC website COVID-19 Vaccines for People Who Are Moderately or Severely Immunocompromised provides a list of moderate or severe immunocompromising conditions.

If there are logistical constraints to providing the Panel's recommended therapies to all individuals who are moderately to severely immunocompromised, the Panel suggests prioritizing patients who are least likely to mount an adequate response to COVID-19 vaccination or SARS-CoV-2 infection and are at risk for severe outcomes. This includes, but is not limited to, patients who:

- Are receiving active treatment for solid tumor and hematologic malignancies.
- Have hematologic malignancies (e.g., chronic lymphocytic lymphoma, non-Hodgkin lymphoma, multiple myeloma, acute leukemia) and are known to have poor responses to COVID-19 vaccines, regardless of the treatment status for the hematologic malignancy.
- Received a solid organ or islet transplant and are receiving immunosuppressive therapy.
- Received chimeric antigen receptor T cell therapy or a hematopoietic cell transplant and are within 2 years of transplantation or are receiving immunosuppressive therapy.
- Have a moderate or severe primary immunodeficiency (e.g., severe combined immunodeficiency, DiGeorge syndrome, Wiskott-Aldrich syndrome, common variable immunodeficiency disease).
- Have advanced or untreated HIV infection (defined as people with HIV and CD4 T lymphocyte cell counts <200 cells/mm^3, a history of an AIDS-defining illness without immune reconstitution, or clinical manifestations of symptomatic HIV).
- Are receiving active treatment with high-dose corticosteroids (i.e., ≥20 mg prednisone or equivalent per day for ≥2 weeks), alkylating agents, antimetabolites, transplant-related immunosuppressive drugs, cancer chemotherapeutic agents classified as severely immunosuppressive, or immunosuppressive or immunomodulatory biologic agents (e.g., B cell–depleting agents).

If logistical constraints preclude administration of remdesivir to all prioritized patients, the Panel suggests further prioritizing patients who are more severely immunocompromised and have additional risk factors for severe disease.

Clinical Risk Factors

Some of the most important risk factors for severe COVID-19 include age (risk increases with each decade after age 50),[1] receipt of cancer treatment, immunocompromising conditions or receipt of immunosuppressive medications, cardiovascular disease, chronic kidney disease, chronic lung disease, diabetes, obesity (i.e., body mass index ≥30), and pregnancy. For a complete list of risk factors, including information on the relative risk of severe disease, see the CDC webpage Underlying Medical Conditions Associated With Higher Risk for Severe COVID-19. Of note, the likelihood of developing severe COVID-19 increases when a person has multiple comorbidities.[2] For people who are not immunocompromised, vaccination with a primary COVID-19 vaccine series and booster doses dramatically reduces the risk of progressing to severe disease.

Although children with COVID-19 have substantially lower mortality than adults with COVID-19, severe disease can occur, especially in those with risk factors. See Table 3b for the Panel's framework for assessing the risk of progression to severe COVID-19 in children.

References

1. Centers for Disease Control and Prevention. Underlying medical conditions associated with higher risk for severe COVID-19: information for healthcare professionals. 2023. Available at: https://www.cdc.gov/coronavirus/2019-ncov/hcp/clinical-care/underlyingconditions.html. Accessed October 17, 2023.
2. Rosenthal N, Cao Z, Gundrum J, Sianis J, Safo S. Risk factors associated with in-hospital mortality in a U.S. national sample of patients with COVID-19. *JAMA Netw Open*. 2020;3(12):e2029058. Available at: https://www.ncbi.nlm.nih.gov/pubmed/33301018.