The COVID-19 Treatment Guidelines were developed to provide clinicians with guidance on caring for patients with COVID-19. Because clinical information about the optimal management of COVID-19 is evolving quickly, these Guidelines are updated frequently to reflect newly published data and other authoritative information.

Panel Composition

Members of the COVID-19 Treatment Guidelines Panel (the Panel) are appointed by the Panel co-chairs based on their clinical experience and expertise in patient management, translational and clinical science, and/or the development of treatment guidelines. Panel members include representatives from federal agencies, health care organizations, academic institutions, and professional societies. Federal agencies and professional societies represented on the Panel include:

- American Association of Critical-Care Nurses
- American Association for Respiratory Care
- American College of Chest Physicians
- American College of Emergency Physicians
- American College of Obstetricians and Gynecologists
- American Society of Hematology
- American Thoracic Society
- Biomedical Advanced Research and Development Authority
- Centers for Disease Control and Prevention
- Department of Defense
- Department of Veterans Affairs
- Food and Drug Administration
- Infectious Diseases Society of America
- National Institutes of Health
- Pediatric Infectious Diseases Society
- Society of Critical Care Medicine
- Society of Infectious Diseases Pharmacists

The inclusion of representatives from professional societies does not imply that these societies have endorsed all elements of the Guidelines.

The names and affiliations of the Panel members, ex officio members, consultants, and members of the Guidelines support team are provided in Appendix A, Table 1. Financial disclosures for the Panel members can be found in Appendix A, Table 2.

Development of the Guidelines

Each section of the Guidelines is developed by a working group of Panel members with expertise in the
area addressed in the section. Each working group is responsible for identifying relevant information and published scientific literature and for conducting a systematic, comprehensive review of that information and literature. The working groups propose updates to the Guidelines based on the latest published research findings and clinical information.

New Guidelines sections and recommendations are reviewed and voted on by the voting members of the Panel. To be included in the Guidelines, a recommendation statement must be endorsed by a majority of voting members; this applies to recommendations for and against treatments and cases where there is insufficient evidence to recommend either for or against treatments. Updates to existing sections that do not affect the rated recommendations are approved by Panel co-chairs without a Panel vote. Panel members are required to keep all Panel deliberations and unpublished data that are evaluated during the development of the Guidelines confidential.

Method of Synthesizing Data and Formulating Recommendations

The working groups critically review and synthesize the available data to develop recommendations. During this process, the Panel evaluates the data, including the source of the data, the type of study (e.g., randomized controlled trial, prospective or retrospective cohort study, case series, in vitro study), the quality and suitability of the methods, the number of participants, and the effect sizes observed.

The recommendations in these Guidelines are based on scientific evidence and expert opinion. Each recommendation includes 2 ratings: an uppercase letter (A, B, or C) that indicates the strength of the recommendation and a Roman numeral with or without a lowercase letter (I, IIa, IIb, or III) that indicates the quality of the evidence that supports the recommendation (see Table 1).

The ratings for the quality of the evidence reflect both the likelihood of bias in the treatment effect estimate and the precision of the estimate. A rating of I corresponds to a low likelihood of bias and a high precision, a rating of IIa (for randomized trials) or IIb (for observational studies) corresponds to a moderate likelihood of bias and a moderate or high precision, and a rating of III corresponds to a high likelihood of bias (for any type of study).

Table 1. Recommendation Rating Scheme

<table>
<thead>
<tr>
<th>Strength of Recommendation</th>
<th>Evidence for Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>A: Strong recommendation for the statement</td>
<td>I: High quality of evidence: 1 or more randomized trials without major limitations, a well-powered subgroup analyses of such trials, or meta-analyses without major limitations</td>
</tr>
<tr>
<td>B: Moderate recommendation for the statement</td>
<td>IIa: Moderate quality of evidence: Randomized trials and subgroup analyses of randomized trials that do not meet the criteria for a I rating</td>
</tr>
<tr>
<td>C: Weak recommendation for the statement</td>
<td>IIb: Moderate quality of evidence: Observational studies without major limitationsb</td>
</tr>
<tr>
<td></td>
<td>III: Expert opinion</td>
</tr>
</tbody>
</table>

a The rating may be lower than I in cases where trials have produced conflicting results.

b This category also includes meta-analyses of observational studies.

To develop the recommendations in these Guidelines, the Panel uses data from the rapidly growing body of research on COVID-19. The Panel also relies heavily on experience with other diseases, supplemented with the members’ clinical experience with COVID-19.

In general, the recommendations in these Guidelines fall into the following categories:
  Recommendations in this category are based on evidence that the potential benefits of using this intervention outweigh the potential risks.

• There is insufficient evidence for the Panel to recommend either for or against the use of [blank] for the treatment of COVID-19 (no rating). This statement is used when there are currently not enough data to support a recommendation, or when the available data are conflicting.

• The Panel recommends against the use of [blank] for the treatment of COVID-19, except in a clinical trial (rating). This recommendation is used in cases where the available data have shown no benefit of using this intervention for the treatment of COVID-19 and/or the intervention has demonstrated safety concerns. More results from clinical trials are needed to further define the role of these interventions in treating COVID-19.

• The Panel recommends against the use of [blank] for the treatment of COVID-19 (rating). This recommendation is used in cases where the available data show that there is no benefit of using this intervention to treat COVID-19 and/or the safety concerns for the intervention outweigh any potential benefits.

Evolving Knowledge on Treatments for COVID-19

Remdesivir and baricitinib are currently the only drugs approved by the Food and Drug Administration for the treatment of COVID-19. An array of drugs that are approved for other indications and multiple investigational agents are being studied for the treatment of COVID-19 in clinical trials around the globe. Information about these trials can be found at ClinicalTrials.gov. In addition, providers can access and prescribe investigational drugs or agents that are approved or licensed for other indications through various mechanisms, including Emergency Use Authorizations, Emergency Investigational New Drug applications, compassionate use or expanded access programs with drug manufacturers, and/or off-label use.

Whenever possible, the Panel recommends that promising, unapproved, or unlicensed treatments for COVID-19 be studied in well-designed, controlled clinical trials. This recommendation also applies to drugs that have been approved or licensed for indications other than the treatment of COVID-19. The Panel recognizes the critical importance of clinical research in generating evidence to address unanswered questions regarding the safety and efficacy of potential treatments for COVID-19. However, the Panel also realizes that many patients and providers who cannot access these potential treatments via clinical trials still seek guidance about whether to use them.

New data on the treatment of COVID-19 are emerging rapidly. Some of these data are being published in peer-reviewed journals, and some can be found in manuscripts that have not yet been peer reviewed or in press releases. The Panel continuously reviews the available data and assesses their scientific rigor and validity. These sources of data and the clinical experiences of the Panel members are used to determine whether new recommendations or changes to the current recommendations are warranted.

Finally, it is important to stress that the rated treatment recommendations in these Guidelines should not be considered mandates. What to do or not to do for an individual patient is ultimately decided by the patient and their provider.