**Anti-SARS-CoV-2 Monoclonal Antibodies (mAb)**

Investigational medications approved for emergency use in patients by the FDA

May reduce progression to severe disease and shorten recovery in high-risk patients

**INDICATIONS**

- For **treatment** of patients (≥12 years) with mild to moderate COVID-19 and **NOT** requiring hospitalization or supplemental oxygen
- For **post-exposure prophylaxis (PEP)** in patients (≥12 years) who are nonvaccinated, incompletely vaccinated, or immunocompromised
- Must be given within 10 days of first symptoms of COVID-19 (or exposure for PEP)
- Treatment is usually IV; good evidence for SC administration for PEP and can be given SC if IV not feasible for treatment. **Efficacy varies depending on circulating variant.**

**EXISTING MONOCLONAL ANTIBODY THERAPIES**

<table>
<thead>
<tr>
<th>Therapy</th>
<th>Description</th>
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<tbody>
<tr>
<td>Sotrovimab</td>
<td>Originally identified in 2003 from a SARS survivor; targets an epitope conserved between SARS-CoV-1 and SARS-CoV-2. <strong>Active against Omicron. Currently available.</strong></td>
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<tr>
<td>Casirivimab plus imdevimab (REGEN-COV)</td>
<td>Recombinant human mAbs that bind to nonoverlapping epitopes in the spike protein of SARS-CoV-2. EUA updated 1/24/2022 - not active against Omicron.</td>
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<tr>
<td>Bamlanivimab plus etesevimab</td>
<td>Neutralizing mAbs that bind to different, but over-lapping, epitopes in the spike protein of SARS-CoV-2. EUA updated 1/24/2022 - not active against Omicron.</td>
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**SEVERAL MECHANISMS OF ACTION**

- **SARS-CoV-2**
  - Neutralization: Neutralizing antibody can prevent viral binding to cell
  - Opsonization: Binds (or opsonizes) the virions or infected cells to make phagocytic uptake easier

**NIH GUIDELINES: WHO SHOULD GET mAb THERAPY?**

- Aged ≥65 years
- Obesity (BMI >30)
- Diabetes mellitus
- Cardiovascular disease
- Chronic lung diseases
- An immunocompromising condition or immunosuppressive treatment (eg, transplant, rheumatic diseases, HIV infection)
- Chronic kidney disease
- Pregnancy
- Sickle cell disease
- Neurodevelopmental disorders (eg, cerebral palsy) or other conditions that confer medical complexity (eg, genetic or metabolic syndromes and severe congenital anomalies)
- Medical-related technological dependence (eg, tracheostomy, gastrostomy, or positive pressure ventilation that is not related to COVID-19)

**Disclaimer:** This information is intended for educational purposes only and should not be used as a substitute for professional medical advice.