

# 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



Supported by Regeneron

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## INDICATIONS

- For **treatment** of patients ( $\geq 12$  years) with **mild to moderate** COVID-19 and **NOT requiring hospitalization or supplemental oxygen**
- For **post-exposure prophylaxis (PEP)** in patients ( $\geq 12$  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

<b>Sotrovimab</b>	Targets an epitope conserved between SARS-CoV-1 and SARS-CoV-2. <b>Active against Omicron.</b>
<b>Bebtelovimab</b>	Recombinant neutralizing human mAb that binds to spike protein of SARS-CoV-2. <b>Active against Omicron.</b>
<b>Casirivimab plus imdevimab (REGEN-COV)</b>	Recombinant human mAbs that bind to nonoverlapping epitopes in the spike protein of SARS-CoV-2. <b>EUA updated 1/24/2022 - not active against Omicron.</b>
<b>Bamlanivimab plus etesevimab</b>	Neutralizing mAbs that bind to different, but overlapping, epitopes in the spike protein of SARS-CoV-2. <b>EUA updated 1/24/2022 - not active against Omicron.</b>

## NIH GUIDELINES: WHO SHOULD GET mAb THERAPY?

- Aged  $\geq 65$  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)

## SEVERAL MECHANISMS OF ACTION

