

# Monoclonal Antibody Therapy for COVID-19

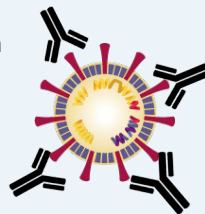
High-risk outpatients with COVID-19 may benefit from receiving monoclonal antibodies. This therapy may **reduce the need for hospitalization.**

## WHAT IS MONOCLONAL ANTIBODY THERAPY?

- Neutralizing antibodies target the receptor-binding domain of SARS-CoV-2 spike protein
- Prevents viral entry into human cells

### Approved monoclonal antibodies:

- Bamlanivimab (Eli Lilly)
- Casirivimab/imdevimab (Regeneron)



## INDICATIONS

- Mild to moderate COVID-19 in adults and children at **high risk** for progressing to hospitalization

## CONTRAINDICATIONS

- Hospitalization due to COVID-19
- Need for oxygen therapy
- If on chronic oxygen therapy, need for an increase over baseline oxygen flow

## WHO IS HIGH-RISK?

<ul style="list-style-type: none"><li>• BMI <math>\geq 35</math></li><li>• Chronic kidney disease</li><li>• Diabetes mellitus</li><li>• Immunosuppressive disease</li><li>• Receiving immunosuppressive treatment</li><li>• Age <math>\geq 65</math> years</li></ul>	<ul style="list-style-type: none"><li>• Age <math>\geq 55</math> years <b>AND</b><ul style="list-style-type: none"><li>• Cardiovascular disease <b>OR</b></li><li>• Hypertension <b>OR</b></li><li>• COPD/other chronic respiratory disease</li></ul></li></ul>	<ul style="list-style-type: none"><li>• Age 12-17 years <b>AND</b><ul style="list-style-type: none"><li>• BMI <math>\geq 85^{\text{th}}</math> percentile <b>OR</b></li><li>• Sickle cell disease <b>OR</b></li><li>• Congenital heart disease <b>OR</b></li><li>• Neurodevelopmental disorders <b>OR</b></li><li>• Medical technological dependence <b>OR</b></li><li>• Asthma, reactive airway disease, or chronic respiratory disease on daily medication for control</li></ul></li></ul>
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## WHAT THE RESEARCH SAYS

### Outpatient therapy:

- **1.6%** of patients given bamlanivimab required hospitalization/ED visit compared with **6.3%** with placebo
- **3%** of patients given casirivimab/imdevimab required medically-attended visits compared with **6%** with placebo

### Inpatient therapy:

- Bamlanivimab **did not show benefit** in recovery from COVID-19 infection

## ADMINISTRATION

- Given **intravenously** over 1 hour
- Monitor for 1 hour after administration to watch for reactions, including anaphylaxis

