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 receptorbinding domain of SARS-CoV-2 spike protein
- · Prevents viral entry into human cells

Approved monoclonal antibodies:

- Bamlanivimab
- Bamlanivimab/etesevimab
- Casirivimab/imdevimab

WHO IS HIGH-RISK?

Chronic kidney disease

Immunosuppressive disease

Receiving immunosuppressive

Diabetes mellitus

treatment

Age ≥65 years

BMI ≥35

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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

- Age ≥55 years AND
 Cardiovascular disease
- Hypertension
 - OR
 - COPD/other chronic respiratory disease

- Age 12-17 years AND
 - BMI ≥85th percentile **OR**
 - Sickle cell disease OR
 - Congenital heart disease OR
 - Neurodevelopmental disorders OR
 - Medical technological dependence OR
 - Asthma, reactive airway disease, or chronic respiratory disease on daily medication for control

WHAT THE RESEARCH SAYS

- 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
- Patients receiving bamlanivimab/etesevimab had greater reductions in SARS-CoV-2 viral load than bamlanivimab monotherapy or placebo
- · Bamlanivimab did not show benefit in hospitalized patients

ADMINISTRATION

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



Chen, et al. *N Engl J Med*. 2020. Weinrich, et al. *N Engl J Med*. 2020. ACTIV-3/TICO LY-CoV555 Study Group. *N Engl J Med*. 2020. Gottlieb RL, et al. *JAMA*. 2021.

*For more information on these medications, refer to FDA Fact Sheet for Health Care Providers. (Similar information as package insert.)

