Monoclonal Antibody Treatment

This aid is designed to provide information for health care providers related to the process and procedure for treating COVID-19 patients with monoclonal antibodies. As information continues to evolve, updated materials may be necessary.

Background:

Monoclonal antibodies are laboratory synthesized recombinant proteins (IgG monoclonal antibodies) that mimic the immune system's ability to destroy virus.

Bamlanivimab (manufactured by Eli Lilly and Company) and Casirivimab & Imdevimab combined (manufactured by Regeneron Pharmaceuticals) are monoclonal antibody preparations that specifically bind to the spike protein of SARS-CoV-2. Virus entry into human cells is blocked which results in a significant decrease in the amount of viral load.

The FDA has authorized the emergency use of Bamlanivimab and Casirivimab & Imdevimab to be administered for the treatment of mild to moderate COVID-19 in adults and pediatric patients (12 years of age and older weighing at least 40 kg) with **positive results of direct SARS-CoV-2 viral testing**, and **who are at high risk** for progressing to severe COVID-19 and/or hospitalization.

Consider treatment with monoclonal antibodies as soon as possible after positive viral test for SARS-CoV-2 and must be within 10 days of symptom onset.

High risk is defined as patients who meet **at least one** of the following criteria:

Are ≥65 years of age

Are ≥55 years of age AND have cardiovascular disease, OR hypertension, OR chronic obstructive pulmonary disease/other chronic respiratory disease.

Have a body mass index (BMI) ≥35

Have chronic kidney disease (Stage 3 or above)

Have diabetes (with HBA1c>8)

Have immunosuppressive disease

Are currently receiving immunosuppressive treatment (HIV, Chemotherapy, Steroid use)

Bamlanivimab, Casirivimab & Imdevimab are **NOT** authorized for use in patients:

Who are hospitalized due to COVID-19, OR

Who require oxygen therapy due to COVID-19, OR

Who require an increase in baseline oxygen flow rate due to COVID-19 in those on chronic oxygen therapy due to underlying non-COVID-19 related comorbidity

Administration:

Bamlanivimab

Infuse 700 mg/200ml NS over 60 minutes using IV infusion set with inline filter and IV pump.

Casirivimab & Imdevimab

The recommended dose of Casirivimab and Imdevimab under the EUA is 1200mg of Casirivimab and 1200mg of Imdevimab administered as a single intravenous (IV) infusion over 60 minutes.

Side Effects:

<1% infusion-related reaction or severe allergy/anaphylaxis.

Signs and symptoms of infusion-related reactions may include but are not limited to:

Fever, chills, nausea, headache, bronchospasm, hypotension, angioedema, throat irritation, rash including urticaria, pruritus, myalgia, dizziness.

Monitor vital signs q 15 minutes during and 1 hour post infusion, assess for adverse reaction.

Provide rapid access to of epinephrine 0.3mg IM, diphendydramine50mg IV, albuterol neb 2.5mg, methylprednisolone 125mg for possible infusion related reaction

Note: Patient should not receive COVID-19 vaccination for 90 days following monoclonal antibody infusion.

Resources:

Fact Sheet for Patients, Parents and Caregivers: Emergency Use Authorization (EUA) of Bamlanivimab for Coronavirus Disease 2019 (COVID-19) (fda.gov)
https://www.fda.gov/media/143604/download

Fact Sheet for Health Care Providers: Emergency Use Authorization (EUA) of Bamlanivimab (fda.gov)
https://www.fda.gov/media/143603/download

Fact Sheet for Patients, Parents, and Caregivers: Emergency Use Authorization (EUA) of casirivimab and imdevimab for COVID-19 (fda.gov)
https://www.fda.gov/media/143893/download

Casirivimab and Imdevimab EUA Fact Sheet for Healthcare Providers (fda.gov)
https://www.fda.gov/media/143892/download

Use Patient counseling guide to inform patient/RP about treatment with Bamlanivimab
bamlanivimab (BAM) Dosing & Administration | HCP | Lilly COVID-19 Treatment
https://www.covid19.lilly.com/bamlanivimab/hcp/dosing-administration#dosing-and-administration

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