

Health Advisory

Monoclonal Antibody Efficacy against the Omicron Variant

December 23, 2021

According to the most recent CDC projections, Omicron is estimated to account for 75% of new COVID-19 cases in the region. The same omicron burden is expected in Philadelphia given current sequencing efforts. Bamlanivimab with etesevimab and casirivimab with imdevimab (REGEN-COV) are not expected to retain activity against the Omicron variant. Sotrovimab is expected to retain full potency against Omicron. Supply of sotrovimab is currently unavailable and is expected to be in extremely short supply when it becomes available.

PDPH recommends halting usage of REGEN-COV and Bamlanivimab with etesevimab after **12/24/21**. When sotrovimab becomes available, institutions and providers should use established prioritization systems to assure that sotrovimab is given equitably and to those at highest risk for severe disease.

Patient Eligibility

Monoclonal Antibodies directed against SARS-CoV-2 may be used in adults and children aged ≥ 12 years and weighing ≥ 40 kg who are at high risk for progressing to severe COVID-19 and/or hospitalization.

Patients are considered at high risk if they meet any one of the following criteria:

- Older age (e.g., age ≥ 65 years of age)
- Obesity or being overweight (e.g., adults with BMI > 25 kg/m², or if age 12-17, have BMI ≥ 85 th percentile for their age and gender based on CDC growth charts (https://www.cdc.gov/growthcharts/clinical_charts.htm)
- Pregnant
- Chronic kidney disease
- Diabetes
- Immunosuppressive disease or immunosuppressive treatment
- Cardiovascular disease (including congenital heart disease) or hypertension
- Chronic lung diseases (e.g., chronic obstructive pulmonary disease, asthma [moderate-to-severe], interstitial lung disease, cystic fibrosis, and pulmonary hypertension)
- Sickle cell disease
- Neurodevelopmental disorders (e.g., cerebral palsy) or other conditions that confer medical complexity (e.g. genetic or metabolic syndromes and severe congenital anomalies)
- Having a medical-related technological dependence [e.g., tracheostomy, gastrostomy, or positive pressure ventilation (not related to COVID-19)]

Individual area health systems may have further inclusion and exclusion criteria.

Resources:

- <https://www.biorxiv.org/content/10.1101/2021.03.09.434607v9>
- <https://www.cdc.gov/coronavirus/2019-ncov/science/science-briefs/scientific-brief-omicron-variant.html>