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Potency reduction of current therapeutics against circulating variants

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SUMMARY POINTS

- Bebtelovimab is not currently authorized for emergency use in the U.S. because it is not expected to neutralize Omicron subvariants BQ.1 and BQ.1.1. These variants now make up nearly 60% of SARS-CoV-2 infections nationally and more than half of infections in all but one U.S. Region.
- Evusheld is not expected to neutralize the great majority of variants, including BQ.1 and BQ.1.1. The NIH treatment panel continues to allow consideration for Evusheld as PrEP with the understanding individuals should continue to take infection precautions and should seek treatment with antivirals should they become infected.
- The NIH treatment guidelines continue to recommend Paxlovid, Remdesivir, and Molnupiravir, in order of preference. These antivirals are anticipated to be active despite this variant composition.

FDA removes authorization of Bebtelovimab

The U.S. Food and Drug Administration announced bebtelovimab is not currently authorized for emergency use in the U.S. because it is not expected to neutralize Omicron subvariants BQ.1 and BQ.1.1.

BQ.1 and BQ.1.1 combined make up over half of infections both nationally and locally. They are increasing in every region and are the fastest growing lineages. Given that a COVID-19 infection is likely to be caused by a non-susceptible SARS-CoV-2 variant, bebtelovimab is not currently authorized for emergency use in any U.S. region at this time.

The U.S. Government recommends all product be retained in the event that SARS-CoV-2 variants susceptible to bebtelovimab, which are currently circulating at lower prevalence, become more prevalent in the future in the United States.

Evusheld

Evusheld may lose potency against variants BA.4.6, BF.7, BA.5.2.6, BA.2.75, BQ.1 and BQ.1.1. Combining these lineages makes up approximately 72% of circulating viruses nationally and 73% of those circulating in HHS Region 3 which includes Pennsylvania (as of 11/26/22). Individuals who receive Evusheld should be told to take additional non pharmacologic precautions to avoid infection, including masks.

Treatment Considerations

For Treatment of Mild to Moderate COVID-19 in Non-hospitalized Adults Who Are at High Risk of Progressing to Severe COVID-19, the NIH Panel continues to recommend Paxlovid and Remdesivir. If neither of these preferred therapies are available, consideration can be given to treatment with Molnupiravir.

While there are many drug-drug interactions with Paxlovid, chronic medications can often be adjusted to allow the use of Paxlovid. The FDA checklist, Liverpool or Ontario tools can assist with managing drug-drug interactions.

Antivirals such as Paxlovid, Remdesivir, and Molnupiravir are anticipated to be active against new variants despite changes to the spike protein.

The NIH Panel continues to recommend Evusheld for eligible individuals as PrEP in the absence of any alternatives. Individuals who receive Evusheld as PrEP should continue to take precautions to avoid exposure to SARS-CoV-2 and should be notified that Evusheld will likely provide very little if any protection from infection and severe disease. If they experience signs and symptoms consistent with COVID-19, they should be tested for SARS-CoV-2 infection and, if infected, promptly seek medical attention and treatment, if appropriate.