PIMA COUNTY
HEALTH DEPARTMENT

March 9, 2022

Re: Pima County Health Alert – COVID-19 Therapeutics Update

Summary
As Pima County enters into a new phase of the pandemic, Pima County Health Department still recommends that eligible individuals should get all vaccines and booster shots as the best preventive measure available against severe disease, hospitalizations, and death due to COVID-19. Therapeutics are also available for preventing and treating COVID-19 in specific at-risk populations. These therapeutics differ in efficacy, route of administration, risk profiles and whether they are authorized for adults only or adults and certain pediatric populations. This Health Alert Network (HAN) Health Advisory serves to familiarize healthcare providers with available therapeutics, understand how and when to prescribe and prioritize them, with additional resources on the infographic attached.

Background
On November 24, 2021, a new variant of SARS-CoV-2, B.1.1.529 (Omicron), was reported to the World Health Organization (WHO). On December 1, 2021, the first case of COVID-19 attributed to Omicron was reported in the United States. Current CDC recommendations for vaccines and booster shots protect against severe illness, hospitalizations, and deaths from infection with the Omicron variant. Studies have demonstrated the importance of booster doses. Pima County Health Department is continuously working with private, public, federal and, state partners to ensure therapeutic options to prevent and/or treat SARS-CoV-2 variants of concern, including the Omicron variant, are available in Pima County.

Monoclonal Antibodies

- The Omicron variant, with its numerous mutations in the spike protein, is not neutralized by bamlanivimab and etesevimab or casirivimab and imdevimab. However, sotrovimab remains effective against all variants of concern, including Omicron. Sotrovimab use may be prioritized for non-hospitalized patients with risk factors for progression to severe COVID-19, including individuals who are unvaccinated, have not received all vaccines and booster shots as recommended by CDC, individuals with clinical risk factors, older age (for example ≥65 years of age), and individuals not expected to mount an adequate immune response. Sotrovimab can be used in these high-risk individuals when Paxlovid is not indicated due to potential severe drug-drug interactions or if Paxlovid is not available. To locate monoclonal antibodies, a map is available here.

Antivirals

- Two oral antivirals, Paxlovid (ritonavir-boosted nirmatrelvir) and molnupiravir, are now available under Emergency Use Authorization by FDA for treating COVID-19 in outpatients with mild to moderate disease. Each drug is administered twice daily for five days. There are considerable differences in efficacy, risk profiles, and use restrictions between the two oral antivirals. From their individual clinical trials, compared to placebo, severe outcomes (hospitalization or death) were reduced by 88% for Paxlovid icon compared to 30% for molnupiravir. Healthcare providers need to be familiar with these distinctions to make clinical decisions and inform patients. In addition, initiating treatment with these oral antivirals must begin within five days of symptom

onset to maintain product efficacy. Both medications are currently available in Pima County. CDC strongly suggests that healthcare providers not experienced in prescribing Paxlovid refer to the NIH Statement on Paxlovid Drug-Drug Interactions | COVID-19 Treatment Guidelines. Healthcare providers could also contact a local clinical pharmacist or an infectious disease specialist for advice. Like Paxlovid, molnupiravir is expected to be active against all circulating variants of concern, including Omicron. Molnupiravir should only be used when other options are not available, due to its lower efficacy. Molnupiravir use is not recommended in pregnancy because of potential mutagenicity. Molnupiravir is also not recommended icon in patients who are breastfeeding or pediatric patients due to limited data within these populations and concerns for potential bone growth toxicity in the young. To locate monoclonal antibodies, a map is available here.

- Remdesivir is a nucleoside analog approved by FDA for the treatment of patients with COVID-19. A recent randomized placebo-controlled outpatient study evaluated three daily intravenous (IV) infusion of remdesivir given within seven days of symptom onset. This study found that the reduction in hospitalization rates was similar to that achieved by using anti-SARS-CoV-2 monoclonal antibody-based therapy. Outpatient use of remdesivir requires support of IV infusion centers with appropriate skilled staffing who can support daily treatment for three sequential days.

Pre-exposure therapeutics for high-risk groups

AstraZeneca's EVUSHELD, which includes two long-acting anti-SARS-CoV-2 monoclonal antibodies, is the only Emergency Use Authorization **pre-exposure prophylaxis** product available. EVUSHELD is expected to be effective against the Omicron variant; however, treatment effectiveness should be monitored. EVUSHELD is intended for the highest risk immunocompromised patients who are not expected to have an effective response to vaccination. EVUSHELD is indicated for pre-exposure prophylaxis only and not for treatment of patients with COVID-19.

Recommendations for Healthcare Providers

- Information for Healthcare Professionals regarding individuals with underlying medical conditions and at higher risk for severe COVID-19 can be found here.
- As with all therapeutics, the best use of therapeutics includes an appropriate clinical assessment and an up-to-date and informed risk-benefit discussion to address any questions or concerns from patients. For more information, visit AzDHS Antivirals for COVID-19.
- Obtain further information on clinical use of products through NIH's COVID-19 Treatment Guidelines, the Assistant Secretary for Preparedness and Response Public Health Emergency COVID-19 Therapeutics site.
- Check with Pima County Health Department on key sites that have been identified for distribution of therapeutics, including cancer treatment centers and oncology providers at COVID-19 treatment - Pima County
- Prioritize high risk patients using NIH COVID-19 Treatment Guidelines when supply constraints exist. This document presents a tiered approach to prioritization.
- Continue to encourage COVID-19 vaccination, including booster vaccination.