New Oral COVID-19 Treatment and Anticoagulant Interactions

On December 22, 2021 the FDA released an Emergency Use Authorization for Pfizer’s Paxlovid™ (nirmatrelvir tablets; ritonavir tablets), an oral treatment for mild to moderate COVID-19 in patients who are at high risk for progression to severe COVID-19, including hospitalization or death.

Paxlovid™ is administered as three pills (two of nirmatrelvir and one of ritonavir) twice daily for 5 days, for a total of 30 pills. It must be given within 5 days of symptom onset and is not authorized for use longer than 5 days.

Since Paxlovid™ contains ritonavir, there exists the potential for clinically relevant drug-drug interactions (DDIs) with all oral anticoagulants (DOACS and warfarin) during the 5-day course of therapy, due to ritonavir being a combined P-gp inhibitor and strong CYP3A4 inhibitor.

Clinicians are advised to consider the potential impact of DDIs as they manage anticoagulated patients with acute COVID-19 infections. If the anticoagulation provider is able to identify and intervene in a timely manner, the following is recommended:

- Close monitoring of warfarin and possible warfarin dose adjustment
- Management of the DOACs can depend on indication, renal function, and other factors.
  - For patients taking apixaban 10mg or 5mg twice daily, consider reducing the dose to 5mg or 2.5mg twice daily, respectively, for the 5-day duration of the Paxlovid™
  - For patients taking rivaroxaban, dabigatran, edoxaban, or apixaban 2.5mg, consider individualized risk of thromboembolism/bleeding
- Counsel patient to monitor and report bleeding symptoms

For additional details and specific recommendations consider the following AC Forum Resources:

Rapid Resource on DDIs with DOACs

DOAC Playbook