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Penn Medicine

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To: UPHS Physicians and Staff

From: **Leslie M Shaw, PhD; Michael C Milone, MD, PhD; JoAnn Gardiner, MS**

Date: October 7, 2021

Re: **Voriconazole and Posaconazole Therapy Monitoring Test Procedure**

New Voriconazole and Posaconazole therapy drug monitoring test procedure effective September 27, 2021.

The Toxicology Laboratory at the Hospital of the University of Pennsylvania has validated and implemented a new test procedure for serum drug measurement of the antifungal drugs Voriconazole and Posaconazole using liquid chromatography-tandem mass spectrometry (LC-MSMS).

Serum trough concentrations of Voriconazole or Posaconazole at steady-state are widely variable using empiric dosing. Thus, achieving and maintaining Voriconazole or Posaconazole concentrations in the recommended target concentration ranges will maximize efficacy and minimize toxicity of these medications.

Optimal use of this testing requires a ***trough serum sample*** collected in a plain red top tube within one hour prior to the morning dose after steady-state is reached-at least 5 days from start of therapy for Voriconazole and approximately 7 days for Posaconazole. The reference target steady-state ranges are:

Voriconazole --- 1 to 5.5 µg/mL.

Posaconazole --- >0.7 µg/mL for prophylaxis; >1 µg/mL for treatment

Testing schedule: Voriconazole and Posaconazole testing will be performed Monday and Thursday for samples received by 2pm. Results will be reported the following day.

EPIC ordering information:

Test names: VORICONAZOLE, QUANT for Voriconazole and POSACONAZOLE for Posaconazole. The respective EPIC PX code names are: VORICQNT and POSHPLC

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