

## Voriconazole - Therapeutic Drug Monitoring (TDM) Guidance

On the microbiology request for serum levels, please supply details of the **clinical indication for therapy, dosage, level required, the time and date of the sample and the time since the last dose was administered.**

Results can be obtained electronically via TrakCare and SCI-store or from Medical Microbiology (Ext 52451 or 52444). Help in interpretation of the results and dose adjustments for individual patients can be obtained from your ward Clinical Pharmacist, Specialist Antibiotic Pharmacists (Ext 51048 or bleep 3933), Medicines Information Service (Ext 52316), or out of hours via switchboard from the On-call Pharmacist or On-call Medical Microbiologist (only if treatment initiated by medical microbiology).

Drug	Optimum sampling time(s)	Target Range/Points to note
<b>Voriconazole</b>	<p>Pre-dose (trough) level taken 2-5 days after starting therapy.</p> <p>Re-assay after 4-8 days – assuming initial results are within expected range.</p>	<p>Prophylaxis and treatment: 1 - 5.5 mg/L - see below for severe infections.</p> <p>Severe infections: 2 – 5.5 mg/L, e.g. multifocal, disseminated disease, CNS infections or treatment of pathogens with elevated MICs, e.g. <i>Aspergillus fumigatus</i> MIC of 2 mg/L.</p> <p>Repeat level the following week to ensure patient remains in the therapeutic range.</p> <p>Repeated monitoring advised until confirmation of steady-state level in the therapeutic range, following any change in clinical condition and, e.g. when interacting drugs stopped or started, concerns about non-compliance, gastro- intestinal absorption or toxicity.</p> <p><i>NB. Levels not assayed in ARI – liaise with Medical Microbiology who will forward the submitted sample to an external reference laboratory. The turnaround time for these samples is generally 2-5 days from receipt to a report being received from the reference laboratory.</i></p>

### References

1. Individual drug monograph - <https://bnf.nice.org.uk/drug/voriconazole.html>
2. Summary of product characteristics – (Voriconazole VFEND 200mg Powder for Solution for Infusion, Pfizer Ltd – accessed 6/7/23) [www.medicines.org.uk](http://www.medicines.org.uk)
3. North Bristol NHS Trust Antimicrobial Reference Laboratory – Guideline Ranges 2023 -2024  
<https://www.nbt.nhs.uk/sites/default/files/document/Antibiotic%20Guideline%20Ranges%202023%20-%202024.pdf>
4. North Bristol NHS Trust Antimicrobial Reference Laboratory – Analytes – Voriconazole  
<https://www.nbt.nhs.uk/severn-pathology/requesting/test-information/voriconazole>
5. Ullmann A.J. et al. 2018. Diagnosis and management of Aspergillus diseases: executive summary of the 2017 ESCMID-ECMM-ERS guideline. ClinMicrobiol Infect. S1:e1-e38  
[https://www.clinicalmicrobiologyandinfection.com/article/S1198-743X\(18\)30051-X/fulltext](https://www.clinicalmicrobiologyandinfection.com/article/S1198-743X(18)30051-X/fulltext)