

Laboratory Medicine Care Division

Mycology

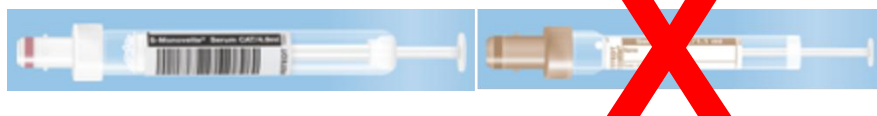
Isavuconazole

Anti-fungal drug level monitoring

General information

Turnaround time: 1-2 days

Sample type/container:



Typical volume: Adult 4.9ml, Neonate 0.5ml

- Minimum blood volume is 2 ml; serum volume of 1 ml is required for testing.
- Serum tube (Sarstedt S-Monovette white cap). Blood collected in EDTA tubes will be rejected.

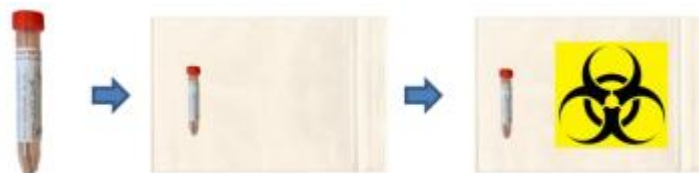
Gel separation tubes should **NOT** be used as the gel may reduce the drug level detected. More accurate results will be obtained by using blood tubes with no additives.

Specimens should be transported to the laboratory as soon as possible. If a delay is anticipated, samples should be refrigerated. Assays are validated for transportation of samples at room temperature for up to and including 5 days.

For all drugs, the time of previous dose and the time of sampling should be recorded accurately to allow correct interpretation.

Transportation

- Samples should be placed into a plastic Ziploc bag, sealed, and then placed into another sealed plastic Ziploc bag (preferably with a biohazard label on the outside), as shown below.

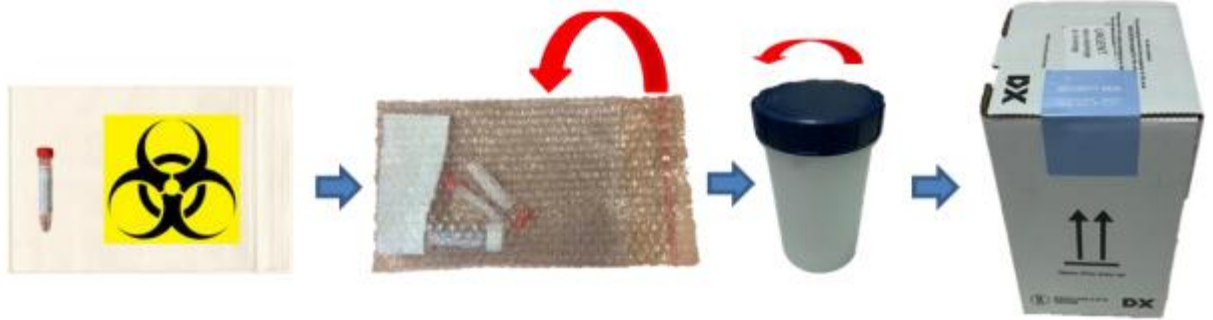


- Category B transport boxes or an appropriate transport bag (i.e., one which adheres to regulations governing the transportation of diagnostic specimens) must be used for transport by road or between Manchester University Foundation Trust sites (but are not necessary within Wythenshawe hospital grounds).

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- Please see below for packaging requirements.



For more information - <https://mrcm.org.uk/sample-collection/>

Laboratory Information

Biological interval/clinical decision values

- Target levels are not fully established and informed clinical judgement is required for dose adjustments. Consult the Mycology Reference Centre for advice.
- On normal isavuconazole treatment dosing, most patients achieve levels between 2.0 and 4.0 mg/L.
- Levels above 5.0 mg/L have been associated with increased gastro-intestinal side effects.
- The mean half-life of isavuconazole in plasma is 130 hours and it has linear pharmacokinetics.

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Clinical Information

Therapeutic drug monitoring is essential for monitoring patient safety and treatment efficacy.

Pre-dose:	Oral: 10-24 hours post-dose window* (i.e., pre-dose as twice daily dosing) IV: Just before dose*
Post dose:	Not required
Commence:	after 3 days of therapy
Frequency:	Dependent on patient - seek advice. If patient has suspected invasive disease or very unwell, do a level at day 5 of treatment and repeat at least weekly until therapeutic levels obtained. Once therapeutic levels achieved, repeat levels at 2, 4, 8 and 12 weeks, and every three months thereafter. For other diagnoses, do a level at week 2, 4, 8 and 12 of treatment and every three months thereafter. Repeat levels two weeks after any dose change, IV to oral switch or <u>if there is a risk for a drug-drug interaction</u> . Repeat levels if concern about poor compliance/poor absorption.
Lab assay runs:	Each weekday

* These samples are most useful for clinical management

(Last updated May 2026)

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