

Voriconazole (Vfend™)

Spectrum of Activity:

- Voriconazole has broad coverage against Candida, Aspergillus, dimorphic fungi, Fusarium spp.
- Coverage gaps:
 - Zygomycetes (e.g. mucor)

Acceptable uses

- Prophylaxis
 - Lung transplant
- Treatment
 - Aspergillosis

Unacceptable uses

- Should be avoided in pregnancy

Dosing

- Prophylaxis
 - Lung transplant: 200mg twice daily x 2 months
- Treatment
 - Aspergillosis:
 - Loading dose: 6mg/kg IV/PO q12h x 2 doses (use dosing body weight in obesity)
 - Maintenance dose: 4mg/kg IV/PO q12h
- Formulations
 - Oral (tablet, suspension)
 - Bioavailability > 90%. Administer on empty stomach for optimal absorption.
 - Intravenous
 - Contains cyclodextrin, which may accumulate in renal dysfunction
- Therapeutic Drug Monitoring
 - Obtain trough level 5-7 days after initiation of therapy
 - Goal trough: 1-5.5 mcg/ml
- Dose Adjustments:
 - No dosing adjustments recommended for renal impairment though caution is warranted for IV therapy when CrCl < 50 ml/min
 - Mild to moderate hepatic impairment (Child-Pugh A/B): reduce maintenance dose by 50% after standard loading dose
 - Severe Hepatic Impairment (Child-Pugh C): use if benefit outweighs risk. Close level monitoring recommended.

Monitoring

- Adverse Reactions: Transient visual disturbances (photopsia), photosensitivity, visual and/or auditory hallucinations, nausea, abdominal discomfort, elevated LFTs, and prolonged QTc. Prolonged use has been associated with skin cancer, alopecia, nail changes, bone/joint pain, and periostitis (associated with elevated plasma fluoride levels)
- Labs/Tests: AST/ALT at baseline and every 1-2 weeks after, baseline ECG, renal function (IV only)

- Drug interactions: As a CYP-enzyme inhibitor, itraconazole has significant drug interactions including oral anticoagulants, anti-epileptics, anti-arrhythmics, SSRIs, antipsychotics, and immunosuppressants. Concurrent treatment with vinca alkaloids should be avoided.