Voriconazole Intravenous for Adults

Who can administer

May be administered by registered competent doctor or nurse/midwife

Important information

- **Reserve antimicrobial:** Restricted for indications in the antimicrobial prescribing guidelines, or following approval by microbiology/infectious diseases
- Voriconazole has **high oral bioavailability** so switching to oral therapy is appropriate when clinically indicated (see BNF for doses)
- There are numerous, **potentially life-threatening interactions** with antimicrobials, anticoagulants and transplant rejection drugs for example - detailed information in the manufacturer's SPC (or the BNF if the SPC is not available)
- If possible, avoid any drugs known to prolong the **QT interval**
- See under 'Dose' for adjustments required in **renal** impairment
- **Electrolyte disturbances** such as hypokalaemia, hypomagnesaemia and hypocalcaemia should be monitored and corrected if necessary, prior to and during voriconazole therapy

Available preparations

Voriconazole 200mg vial

Reconstitution

Water for injections

19ml per 200mg vial

This produces a solution with a concentration of 200mg in 20ml

Dilute further prior to administration

Infusion fluids

Sodium Chloride 0.9% or Glucose 5%

Methods of intravenous administration

Intermittent intravenous infusion

- Final concentration of infusion must be between 0.5 and 5mg/ml - use the following table as guidance

Dose	Volume of infusion
Less than 140mg	100ml
140 to 500mg	100 to 250ml
Greater than 500mg	250ml
Administer at a rate as dictated by table below	

Rate of administration

- Maximum rate of administration is 3mg/kg/hour - for simplicity use the following guidance

Rate of administration	Administration time
Doses of 4mg/kg	90 minutes
Doses of 6mg/kg	120 minutes
Doses over 6mg/kg (on Micro/ID advice only)	180 minutes

Dose in adults

Loading dose (day 1)

- Give 6mg/kg every twelve hours for the first twenty-four hours (two doses)

Maintenance dose (day 2 onwards)

- Give 4mg/kg every twelve hours
- If patient is unable to tolerate treatment at this dose, then decrease the dose to 3mg/kg every twelve hours

Renal impairment

- The manufacturers advise avoiding the intravenous form if possible where eGFR 50ml/minute/1.73m^2 or less due to the risk of accumulation of toxic 'additive' (vehicle), unless the benefit outweighs risk

Hepatic impairment

- In mild to moderate hepatic **cirrhosis** (Child-Pugh score A and B), give usual loading dose, and then halve maintenance dose
- For severe hepatic **cirrhosis** (Child-Pugh score C), no information available. Manufacturer advises only to use in patients with severe hepatic impairment if potential benefit outweighs risk
- There is limited data on the safety of voriconazole in patients with abnormal LFTs (AST, ALT, ALP, or total bilirubin >5 times the upper limit of normal)

Monitoring

- **Infusion related reactions**, predominantly flushing and nausea, have been observed during administration of the intravenous formulation of voriconazole. Depending on the severity of symptoms, consideration should be given to stopping treatment
- **Electrolyte disturbances** such as hypokalaemia, hypomagnesaemia and hypocalcaemia should be monitored and corrected if necessary, prior to and during voriconazole therapy
- Monitor **liver function** before starting treatment, then at least weekly for one month, and then monthly during treatment. Consider treatment discontinuation if LFTs become markedly elevated
- Monitor **pancreatic function** - serum amylase or lipase
- Monitor for **skin reactions**: severe ADR may occur
- **Drug levels** may be required - discuss with Micro/ID - not routinely performed in house (ref 1)

Storage

Store below 25^{0}C

References

Voriconazole (Fresenius Kabi) May 2021

1: GAPP app accessed March 5th 2025

Therapeutic classification

Antifungal agent