

## 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 - check 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 <small>(on Micro/ID advice only)</small>	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<sup>2</sup> 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 **serum creatinine** in all patients
- 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
- **Drug levels** should be measured weekly, or as per Micro/ID - not routinely performed in house- sent to Bristol <sup>(ref 1)</sup>

## Storage

Store below 25°C

## References

Voriconazole (Fresenius Kabi) May 2021

1: AST advice Nov 2021

## Therapeutic classification

Antifungal agent