

## VECURONIUM BROMIDE

[link to patient group direction \(PGD2\)](#)

### Vecuronium supply problems

During the current problems with supply of vecuronium you may find it necessary to use Pancuronium instead; if so please use the [Pancuronium monograph](#).

### ACTION and USES

Vecuronium is used to paralyse neonates requiring assisted ventilation who are restless and hypoxic and continue to "fight the ventilator" despite optimal ventilation, and also in some babies because they require high pressure ventilation. Muscle relaxation in these cases may reduce lung barotrauma, risk of pneumothorax and prolonged oxygen dependency.

### DOSAGE

IV Bolus-100microgram/kg. Adjust frequency and dose according to response. Consider increasing maintenance dose to 150micrograms/kg/dose if duration of action less than 1 hour or reducing to 50 micrograms/kg/dose if more than 6 hours.

Continuous infusion- Load with bolus of 100micrograms/kg then start infusion at dose of 50micrograms/kg/hour. Adjust dose to maintain paralysis.

Stop infusion every 24 hours and restart once paralysis is beginning to wear off loading with a bolus of 50micrograms/kg followed by a continuous infusion. If it takes more than 4 hours to recover restart the infusion at a lower dose than previously.

### ADMINISTRATION

By IV bolus over 1 minute or continuous infusion.

### RECONSTITUTION

Vecuronium injection is available as a dry powder containing 10mg vecuronium bromide. Reconstitution is necessary.

#### **Vecuronium bromide injection 1mg/ml**

Add 10ml water for injections and shake well to mix. This should be diluted further if dose to administer is less than 0.1ml.

#### **Vecuronium bromide injection 100micrograms/ml**

Dilute 0.1ml of vecuronium 1mg/ml with 0.9ml of water for injection and shake well to mix.

For Continuous infusion- Vecuronium bromide 100micrograms/kg/ml

Add 5mg/kg (5ml/kg of vecuronium bromide 1mg/ml solution) to a 50ml syringe and make up to a final volume of 50ml with glucose 5%.

At this concentration the rate of infusion is calculated by the following formula.

Rate = 0.01 x dose (micrograms/kg/hour)

Other compatible diluent - Sodium Chloride 0.9%

## **INCOMPATIBILITIES**

Do not mix or infuse with sodium bicarbonate, phenytoin or phenobarbitone.

## **STORAGE**

Reconstituted solutions of 1mg/ml may be stored for 24 hours in a refrigerator. Each vial must be used for a single patient - label with the patient name, number and date and time of reconstitution. Unopened vials should be stored below 25°C. i.e. in the refrigerator when in ITU.

## **MONITORING**

Monitor for degree of paralysis and respiratory function. Monitor urea and electrolytes as disturbances may alter action. Monitor clotting as it may reduce the thromboplastin and prothrombin time. It should have no cardiovascular effects within the clinical dosage range. Moderate changes in duration of action occur in liver or biliary disease. The duration of paralysis may be increased with co-administration of aminoglycosides, metronidazole, and magnesium sulphate. Paralysis can mask any seizure activity. Hypromellose eye drops should be prescribed to lubricate eyes. Localised reactions can occur, observe IV site for rash and phlebitis.