

## Who can administer

Administration RESTRICTED - see [Appendix 1](#)

## Important information

- Stored as a controlled drug in GUH
- For use by anaesthetists only
- **Extravasation** can cause local tissue necrosis and severe pain - use central line or large peripheral line<sup>(ref 1)</sup>.
- **Resite cannula** at first signs of **inflammation**
- **Accidental** intra-arterial injection causes severe arterial spasm and an intense burning pain around the injection site<sup>(ref 1)</sup>
- For Y-site compatibility [see below](#)

## Available preparations

Thiopental 500mg vial

## Reconstitution

### Water for injection

20ml per 500mg vial (produces a 25mg/ml (2.5%) solution)

## Methods of intravenous administration

### Bolus intravenous injection

- Administer required dose over 10 to 15 seconds<sup>(ref 1)</sup> (20 seconds for Thiopentone Inresa brand<sup>(ref 5)</sup>)
- However it is recommended to administer incremental doses rather than one bolus dose in order to achieve greater control and better recovery<sup>(ref 4)</sup>

**For administration by other routes** - see Further Information

## Dose in adults

### Use in anaesthesia

- It is recommended to administer incremental doses rather than one bolus dose in order to achieve greater control and better recovery<sup>(ref 4)</sup>
- A test dose of 25 to 75mg can precede the main administration<sup>(ref 1,2)</sup>. Monitor for at least 60 seconds to assess tolerance or unusual sensitivity to the drug<sup>(ref 1)</sup>
- Give 100 to 150 mg over 10 to 15 seconds<sup>(ref 2,3)</sup>
- A repeat dose of 100 to 150mg may be given after 30 to 60 seconds<sup>(ref 2,3)</sup>
- No fixed dosage recommendations can be given since the dose will need to be carefully adjusted according to response. Factors such as age, sex, weight should be taken into account<sup>(ref 4)</sup>
- Maximum dose 500mg<sup>(ref 3)</sup>

### **Use in convulsive states** <sup>(ref 3,4)</sup>

- Give 75 to 125mg as soon as possible after the convulsion begins
- Further doses may be required

### **Use in neurological patients with raised intracranial pressure** <sup>(ref 2)</sup>

- Intermittent bolus doses of 1.5 to 3mg/kg may be given to reduce elevations of intracranial pressure if controlled ventilation is provided

### **Reduced doses may be required in the following patients** <sup>(ref 4)</sup>

- Elderly
- Patients pre-medicated with narcotic analgesics
- Hepatic impairment
- Shock
- Dehydration
- Severe anaemia
- Hyperkalaemia
- Toxaemia
- Myxoedema
- Other metabolic disorders
- Severe renal impairment <sup>(ref 3)</sup>

### **Increased doses may be required in the following patients** <sup>(ref 4)</sup>

- Patients with a history of drug or alcohol abuse

## Monitoring

- Severe or refractory hypokalaemia during the infusion has been reported, severe rebound hyperkalaemia may occur after administration has stopped <sup>(ref 1)</sup>
- Endotracheal intubation equipment, oxygen and resuscitation equipment should be readily available <sup>(ref 1)</sup>
- Monitor blood pressure <sup>(ref 1)</sup>, respiratory function
- Monitor injection site (can cause extravasation)

## Further information

### **Rectal administration** <sup>(ref 4)</sup>

- Give 25 to 45mg/kg dissolved in 25ml water.
- Anaesthetic effects are usually seen within 10 minutes of administration

## Storage

- Controlled drug
- Do not store above 25<sup>0</sup>C

## References

1: Injectable medicines guide, downloaded from Medusa 11th Jan 2023

2: Martindale- downloaded from Medicinescomplete 12th Jan 2023

3: BNF- downloaded from Medicinescomplete 11th Jan 2023

4.:SPC March 2019 (no longer marketed but SPC on file)

5: Thiopentone Inresa SPC 06/09/2014

Search synonym thiopentone

## Therapeutic classification

Barbiturate