

## Who can administer

Administration RESTRICTED - see [Appendix 1](#)

## Important information

- Should always be administered while patient is in the supine or left lateral position
- Raising the patient into the upright position **within three hours** of intravenous labetalol administration should be avoided, since excessive postural hypotension may occur
- Q pulse document - 'WAC Group Guideline and Pathway on the Management of Hypertensive Disorders in Pregnancy' (CLN-LW-0032) should be consulted for most up to date information on the use of labetalol in this indication <sup>(ref 1)</sup>
- For Y-site compatibility [see below](#)

## Available preparations

Trandate 100mg per 20ml ampoule

Labetalol 100mg per 20ml ampoule

## Reconstitution

Already in solution

**Draw up using a 5 micron filter needle**

## Infusion fluids

Glucose 5% (or see further information)

## Methods of intravenous administration

### **Continuous intravenous infusion (administer using an electronically controlled infusion device)**

- Dilute 200mg (40ml) injection solution with 160ml infusion fluid (1mg per ml)
- Ideally administer via central line. If essential, can be given via a large peripheral vein <sup>(ref 4)</sup>
- **Fluid restriction:** use undiluted <sup>(ref 2,3)</sup> via central line <sup>(ref 2)</sup> - unlicensed, anecdotal evidence base

### **Bolus intravenous injection (emergency situations such as hypertensive encephalopathy)**

- Administer each 50mg over at least one minute (over five minutes if used in severe hypertension in pregnancy <sup>(ref 1)</sup>)
- May be repeated every five minutes to a usual maximum total dose of 200mg (may be repeated at 10 minute intervals if used in severe hypertension in pregnancy <sup>(ref 1)</sup>)
- Administer via central line or large peripheral vein <sup>(ref 4)</sup>

## Dose in adults

### **Hypertension of pregnancy**

- Commence an intravenous infusion at a rate of 20mg per hour
- This dose may be doubled every thirty minutes until a satisfactory reduction in blood pressure has been obtained or a dose of 160mg per hour is reached
- Occasionally higher doses may be necessary

### **Hypertensive episodes following acute myocardial infarction**

- Commence an intravenous infusion at 15mg per hour
- Gradually increase to a maximum of 120mg per hour, depending on blood pressure control

### **In hypertension due to other causes**

- Commence an intravenous infusion at about 2mg per **minute**, until a satisfactory response is obtained
- The infusion should then be stopped
- The effective dose is usually in the range of 50 to 200mg, depending on the severity of the hypertension
- For most patients it is unnecessary to administer more than 200mg, but larger doses may be required, especially in patients with phaeochromocytoma

### **Acute Stroke**

- See Local guidelines - *Acute Stroke Thrombolysis and thrombectomy Integrated Care Pathway*

## Monitoring

- Monitor blood pressure, heart rate and respiratory function throughout the infusion
- Monitor LFTs as severe hepatocellular damage has been reported
- Monitor infusion site every 30 minutes <sup>(ref 3)</sup>

## Further information

- Labetalol may also be diluted in glucose infusion fluids containing sodium chloride e.g. Sodium chloride 0.18%/Glucose 4%, or in Sodium chloride 0.9% <sup>(ref 4)</sup>

## Storage

Store below 25°C

## References

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- 1'WAC Group Guideline and Pathway on the Management of Hypertensive Disorders in Pregnancy -Drug Treatment guidelines for severe hypertension in pregnancy"(CLN-LW-0032) Q-Pulse document
2. "Critical Care Group: Minimum infusion volumes for fluid restricted critically ill patients: 4th edition 2012 UKCPA
3. Injectable Drugs Guide accessed via Medicinescomplete 07/03/2024
- 4: Medusa IV guides, downloaded 07/03/2024
5. BNF accessed online 07/03/2024

# Therapeutic classification

Beta adrenoreceptor blocking agent with alpha blocking activity

## **BNF**

Cardiovascular

Blood pressure conditions