GROUP INTRAVENOUS LABETALOL GUIDELINE v1.0

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1.0 Guideline Statement

To support the prescribing, administration and monitoring of intravenous labetalol in adult patients.

2.0 Accountabilities

2.1 **Prescribers**
All prescribers must familiarise themselves with this guideline before prescribing IV labetalol and prescribe in line with the Drug Prescribing Trust Wide SOP and the Non-Medical Prescribing Policy where applicable.

2.2 **Staff administering IV labetalol**
All staff must administer IV medications in line with the Drug Administration Trust Wide SOP and be familiar with this guideline before administering IV labetalol.

2.3 **Pharmacists**
Support prescribers and staff administering IV labetalol to ensure the prescribing, administration and monitoring are appropriately undertaken.

3.0 Guideline Detail

3.1 **Preparation**
Labetalol is available as injection ampoules containing labetalol hydrochloride 100mg in 20mL

3.2 **Clinical Use and Indications**

3.2.1 Labetalol is a non-selective beta-receptor antagonist with some alpha 1 antagonist activity. It reduces systemic vascular resistance to reduce blood pressure without affecting cardiac output or causing reflex tachycardia.

3.2.2 Intravenous labetalol is used to manage:

- Accelerated hypertension
- Aortic dissection

3.3 **Contraindications**

3.3.1 Asthma/history of bronchospasm; cardiogenic shock; hypotension; marked bradycardia; metabolic acidosis; phaeochromocytoma (apart from specific use with alpha-blockers); Prinzmetal's angina; second-degree AV block; severe peripheral arterial disease; sick sinus syndrome; third-degree AV block; uncontrolled heart failure

3.3.2 Refer to the latest edition of the British National Formulary (BNF) for a full list of contraindications and cautions

3.4 **Prescribing and Administration**

3.4.1 Ensure aseptic non-touch technique is followed as per Trust ANTT policy.

3.4.2 **IV Bolus (via a central line or large peripheral vein)**
Initially 50mg (10mL undiluted) of labetalol administered over at least 1minute.

Monitor for a satisfactory response, note the maximum effect usually occurs within 5 minutes, and duration of action is usually 6 hours but can be up to 18 hours.

If necessary, 50mg (10mL undiluted) can be administered in 5-minute intervals up to a maximum of 4 doses (200mg in total).

Where tight blood pressure controlled is required for indications listed in 3.2.2, then:

Discontinue the initial IV bolus regimen once the target BP is achieved and change to the maintenance infusion rate via volumetric pump in section 3.4.2 below.

Bolus dosing maybe sufficient for hypertensive emergencies. Discontinue the initial IV bolus regimen if excessive bradycardia (<50 bpm) or hypotension occurs.

3.4.3 **IV Infusion (via volumetric pump)**
Dilute to a final concentration of 1mg/mL, glucose 5% is the preferred diluent and the solution is stable for 24 hours

<u>To make a 1mg/mL solution</u>

a) Withdraw a 100mL from a 500mL bag of glucose 5%

b) Add 500mg of labetalol (5 x 100mg ampoules)

c) Mix the bag well by inverting several times

d) Label as per the Drug Administration Trust Wide SOP

Commence infusion at a rate of 0.5mg/min (0.5mL/min) and increase according to response to a maximum rate of 2mg/min (2mL/min).

Continue infusion until a satisfactory response is achieved, then stop.

In most patients, the effective cumulative dose is usually 50–200 mg depending on initial blood pressure, but occasionally higher doses may be required. Table 1 below gives the corresponding flow rate (mL/hour) for a range of doses.

Dose (mg/min)	0.5	1	1.5	2
Flow rate (mL/hour)	30	60	90	120

For central administration labetalol may be administered undiluted (5mg/mL). This is reserved for fluid restricted patients on critical care.

Note labetalol is incompatible with sodium bicarbonate 4.2%.

3.5 **Monitoring**

3.5.1 Ensure patients remain supine during and for 3 hours after end of administration to avoid excessive postural hypotension.

3.5.2 Blood pressure: monitor 5 minutes after any bolus injection or commencing infusion or rate change, check every 15-30 minutes thereafter

3.5.3 Heart rate: monitor after injection and during infusion. In most patients, there will be a small decrease in heart rate; severe bradycardia is unusual but can be controlled by giving atropine sulphate 600microgram by IV injection, repeated, if necessary, at 5-min intervals. Total dose of atropine sulphate should not exceed 2.4 mg.

3.5.4 Monitor for signs of bronchospasm, especially in patients with any known impairment in respiratory function.

4.0 Equipment Required

No specific equipment other than equipment used to routinely prescribe, administer and monitor medications.

5.0 Training

As per the Trust Medicines Policy.

6.0 Financial Risk Assessment

1	Does the implementation of this document require any additional Capital resources	No
2	Does the implementation of this document require additional revenue resources	No
3	Does the implementation of this document require additional manpower	No
4	Does the implementation of this document release any manpower costs through a change in practice	No
5	Are there additional staff training costs associated with implementing this document which cannot be delivered through current training programs or allocated training times for staff.	No
	Other comments	

7.0 Equality Impact Assessment

An initial equality analysis has been carried out and it indicated that there is no likely adverse impact in relation to Personal Protected Characteristics as defined by the Equality Act 2010.

8.0 Maintenance

This guideline will be reviewed every 3 years by the Pharmacy department in conjunction with the clinical teams who use this guideline. The guidelines many be reviewed earlier if there are significant incidents, safety alerts or changes to national guidance.

9.0 Communication and Training

This guideline will be available on the Trust intranet and will be made available to all staff who need to access it.

10.0 Audit Process

Criterion	Lead	Monitoring method	Frequency	Evaluation
Compliance with guideline.	Departmental Leads	DATIX	Ad-hoc as incidents are reported	Divisional Medicines Management Groups

11.0 References - Legal, professional or national guidelines

11.1 Labetalol SPC:
https://www.medicines.org.uk/emc/product/10831/smpc

11.2 Medusa Injectable Medicines Guide
https://www.medusaimg.nhs.uk/IVGuideDisplay.asp

11.3 Bedside Clinical Guideline 2026 – 2027; Labetalol

11.4 Trust Aseptic Non-Touch Technique Policy

11.5 Trust Medicines Policy

Part A - Document Control

Version number: GGDL01 1.0	**Document Title** **Intravenous Labetalol Guideline**	**Status:** FINAL		**Author:** Louise Pearson Deputy Chief Pharmacist **Chief Officer Sponsor:** Group Chief Medical Officer
Version / Amendment History	Version	Date	Author	Reason
	1.0	Sept 2025	L.Pearson	New guideline
Intended Recipients: Staff who prescribe, administer and monitor IV labetalol				
Consultation Group / Role Titles and Date: ED clinical team – 02/10/2025 Cardiology clinical team - 01/10/2025 Critical care clinical team – 01/10/2025 Divisional MMG – MLTC – 12/03/2026 Divisional MMG – Surgery – 17/03/2026 Divisional MMG – WCCSS – 21/04/2026 Divisional MMG – Community – 11/05/2026 RWT MMG – 06/10/2026				
Name and date of group where reviewed		Trust Medicines Management and Safety Group **Group Policy Meeting – September 2026**		
Name and date of final approval committee(if trust-wide document)/ Directorate or other locally approved committee (if local document)		**Executive Sponsor Approval – October 2026**		
Date of Procedure issue		November 2026		
Review Date and Frequency (standard review frequency is 3 yearly unless otherwise indicated – see section 3.8.1 of Attachment 1)		October 2029 – Every 3 years		
Training and Dissemination: This will be available on the Trust intranet and InPhase				

Publishing Requirements: Can this document be published on the Trust's public page: **Yes** If yes you must ensure that you have read and have fully considered it meets the requirements outlined in sections 1.9, 3.7 and 3.9 of OP01, Governance of Trust-wide Strategy/Policy/Procedure and Local Procedures, as well as considering any redactions that will be required prior to publication.	
To be read in conjunction with: Trust Medicines Policy and associated procedures	
Initial Equality Impact Assessment: Completed Yes **Full Equality Impact assessment (as required): NA** If you require this document in an alternative format e.g., larger print please contact Policy Management Officer for Trust- wide documents or your line manager or Divisional Management Office for Local documents.	
Contact for Review	Louise Pearson Deputy Chief Pharmacist
Monitoring arrangements	Medicines Management and Safety Group
Document summary/key issues covered. A guideline to assist with the prescribing, administration and monitoring of intravenous labetalol.	
Key words for intranet searching purposes	Labetalol

(Part B) **Ratification Assurance Statement**

Name of document: Intravenous Labetalol Guideline v1.0

Name of author: Louise Pearson Job Title: Zia Din

I, the above named author confirm that:

- The Guideline presented for ratification meet all legislative, best practice and other guidance issued and known to me at the time of development of the said document.
- I am not aware of any omissions to the said document, and I will bring to the attention of the Executive Director any information which may affect the validity of the document presented as soon as this becomes known.
- The document meets the requirements as outlined in the document entitled Governance of Trust- wide Strategy/Policy/Procedure and Local Procedures
- The document meets the requirements of the NHSLA Risk Management Standards to achieve as a minimum level 2 compliance, where applicable.
- I have undertaken appropriate and thorough consultation on this document and I have detailed the names of those individuals who responded as part of the consultation within the document. I have also fed back to responders to the consultation on the changes made to the document following consultation.
- I will send the document and signed ratification checklist to the Policy Management Officer for publication at my earliest opportunity following ratification.
- I will keep this document under review and ensure that it is reviewed prior to the review date.

Name of Author: Louise Pearson
Date: 17.12.2025

Name of Person Ratifying this document (Chief Officer or Nominee):
Job Title:
Date:

- I, the named Chief Officer (or their nominee) am responsible for the overall good governance and management of this document including its timely review and updates and confirming a new author should the current post-holder/author change.

IMPLEMENTATION PLAN

To be completed when submitted to the appropriate committee for consideration/approval

Version number: 1.0	**Document Title:** Intravenous Labetolol Guideline	
Reviewing Group: Medicines Management and Safety Group		**Date reviewed:**
Implementation lead: Full name and contact details i.e. email address		
Implementation Issue to be considered (add additional issues where necessary)	**Action Summary**	**Action lead / s (Timescale for completion)**
Strategy; **Consider** (if appropriate) 1. Development of a pocket guide of strategy aims for staff 2. Include responsibilities of staff in relation to strategy in pocket guide.	NA	
Training; Consider 1. Mandatory training approval process 2. Completion of mandatory training form	NA	
Development of Forms, leaflets etc.; Consider 1. Any forms developed for use and retention within the clinical record **MUST** be approved by Health Records Group prior to roll out. 2. Type, quantity required, where they will be kept / accessed/stored when completed	NA	
Procedure communication; Consider 1. Key communication messages from the policy / procedure, who to and how?	The guideline will be shared with the key care groups who will utilise this guideline	Once approved
Financial cost implementation Consider Business case development	NA	
Other specific issues / actions as required e.g. Risks of failure to implement, gaps or barriers to implementation	NA	