



REGIONAL PEDIATRIC PARENTERAL DRUG MONOGRAPH

GENERIC NAME

labetalol



Effective Date: Dec 2011 Revised Date: Nov13-2013	CLASSIFICATION Antihypertensive	OTHER NAMES Trandate	PAGE 1 of 2
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ADMINISTRATION POLICY:

- IV infusion – May be administered by a nurse
- IV bolus – **May be administered by a nurse – physician must be present**

RECONSTITUTION/DILUTION/ADMINISTRATION:

Available as: 5 mg/mL - 20 mL multidose vial

IV bolus: Administer over 2 – 5 minutes

Intermittent: Administer undiluted OR diluted in convenient volume of compatible IV solution over 15 minutes

IV infusion: May administer undiluted OR diluted in convenient volume of compatible IV solution.
 Add 10 mL of labetalol 5 mg/mL in a 50 mL normal saline minibag.
 Diluent volume: 60 mL Final concentration: 0.84 mg/mL

Central: No special considerations

Maximum concentration: 5 mg/mL

DOSAGE:

NOTE: Limited published data on the use of labetalol IV in pediatric patients

Hypertensive Emergency

IV bolus or intermittent: Initial: Child: 0.2 – 0.6 mg/kg/dose (maximum 20 mg/dose)
 Repeat every 15 minutes PRN (maximum 3.5 mg/kg/total loading dose)
 Adolescent: 5 – 20 mg, then 10 – 40 mg every 10 minutes PRN until BP response achieved (maximum: 300 mg/total loading dose)

Hypertension

IV intermittent: Child: 0.3 – 0.6 mg/kg/dose q 6 – 12 hours
 Adolescent: Limited data; up to 300 mg/24 hours divided every 6 – 12 hours

IV infusion: Child: Initial: 1 mg/kg/hour
 Increase by 0.5 mg/kg/hour every 12 – 24 hours
 Maximum: 3 mg/kg/hour
 Adolescent: 0.5 – 2 mg/minute. Titrate to BP response

Renal impairment: No dosage adjustment required

Hepatic impairment: Dosage adjustment may be required in severe impairment; titrate to BP, start with low dose

Obesity: No data



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STABILITY/COMPATIBILITY:

Stability of opened vial: 30 days at room temperature

Stability of Final Admixture: 24 hours at room temperature

Compatibility: Compatible with D5W, normal saline, dextrose-saline solutions, Lactated Ringer
Incompatible with insulin

PRECAUTIONS, POTENTIAL ADVERSE REACTIONS:

- CV: Hypotension, postural hypotension, angina, severe bradycardia, AV conduction disturbances, dysrhythmias, congestive heart failure
- GI: Nausea, vomiting, abdominal pain, dyspepsia, taste change, dry mouth
- Neuro: (Secondary to cerebral hypoperfusion from rapid BP reduction) fatigue, headache, dizziness, confusion, decreased level of consciousness, blurred vision, sweating, vivid dreams
- Resp: Dyspnea, nasal congestion, wheezing, bronchospasm
- Local: Scalp tingling (with initial and loading dose), pruritus, rash
- Other: Dysuria, pedal edema
- Avoid abrupt discontinuation of medication, especially after more than 48 hours of therapy
- Contraindicated: Negative inotropic and dromotropic (nerve conduction) effects: Patients with asthma, chronic lung disease, overt cardiac failure, 2nd or 3rd degree heart block, cardiogenic shock or severe bradycardia

ADDITIONAL NOTES AND NURSING CONSIDERATIONS:

- Half-life (children, adolescents): 5 – 8 hours
- Decreased elimination in neonates and infants
- Onset of action: IV bolus, Intermittent: 5 minutes
- Maximal BP decrease: IV bolus, Intermittent: 5 – 15 minutes post-dose; IV infusion: 12 – 24 hours

• Required monitoring

Due to risk of postural hypotension, maintain patient in supine position for a least 3 hours following initial or loading doses

BP, HR, Oxygen saturation, level of consciousness, respiratory rate and rhythm: Baseline, repeat at 5, 10 and 20 minutes after each initial or loading dose (maximal BP decrease at 5 – 15 minutes post-dose)

Intermittent maintenance dose: Repeat at least every 6 hours pre-dose and 15 minutes post-dose

Infusion: Repeat at least every 6 hours; continuous monitoring preferred

BP, HR (on discontinuation of infusions greater than 48 hours): Every 5 minutes x 30 minutes, every 30 minutes x 2 hours, then every hour x 6 hours

Hypertensive emergencies

12-lead ECG to detect conduction or ischemic cardiac changes: Baseline, 10 minutes post-initial or loading dose and at 15 – 24 hours if patient received a continuous infusion