ALS Pharmacology – LABETALOL HYDROCHLORIDE

TRADE NAMES: Trandate and Normodyne

1. Pharmacology

a) Beta-blocker with Alpha-blocking properties
b) Antihypertensive

2. Pharmacokinetics

a) Onset within 5 minutes with IV administration
b) Peak effect at 5 to 15 minutes
c) Duration of 4-6 hours

3. Indications

a) Pregnant patients greater than 20 weeks gestation OR up to 6 weeks postpartum with SBP greater than or equal to 160 mmHg or DBP greater than or equal to 110 mmHg.
b) Stroke: Patients with SBP greater than or equal to 220 mmHg AND DBP greater than or equal to 120 mmHg AND focal neurological deficit or positive stroke assessment resulting in Stroke Alert activation.
c) Chest Pain: Patients with SBP greater than or equal to 220 mmHg AND DBP greater than or equal to 120 mmHg with strong suspicion (tearing/ripping chest or back pain, unequal upper extremity BP) or diagnosis via imaging of acute aortic aneurysm or dissection WITH CONSULTATION.

4. Contraindications

a) Hypersensitivity to Beta-blockers
b) Heart rate under 60 bpm
c) 2nd or 3rd degree AV Block
d) Active asthma exacerbation
e) Decompensated heart failure
f) Acute head trauma

5. Adverse Effects

a) Hypotension
b) Nausea
c) Dizziness

6. Precautions

a) If a patient has an anaphylactic reaction to labetalol or other beta-blockers, treatment with epinephrine may be ineffective
b) Use with caution or withold if there are any signs of respiratory distress. Beta-blockers impede treatment with beta-agonists and can worsen heart failure
c) Use with caution in patients with myasthenia gravis and any peripheral vascular disease

7. Dosage

a) Pregnant patients greater than 20 weeks gestation OR up to 6 weeks postpartum with SBP greater than or equal to 160 mmHg or DBP greater than or equal to 110 mmHg:
   (1) 1st Dose: 20 mg IV/IO over 2 minutes
   (2) 2nd Dose: 40 mg IV/IO over 2 minutes, if SBP greater than or equal to 160 mmHg or DBP greater than or equal to 110 mmHg ten minutes after the initial dose
   (3) After the second dose, an additional dose up to 40 mg IV/IO requires medical consultation

b) Hypertensive patients with SBP greater than or equal to 220 mmHg AND DBP greater than or equal to 120 mmHg, with focal neurologic deficit or signs/symptoms resulting in a Stroke Alert:
   (1) 1st Dose 10 mg IV/IO over 2 min
   (2) 2nd Dose 10 mg IV/IO over 2 min
   (3) 3rd Dose of 20 mg IV/IO over 2 minutes, and any subsequent doses of 20 mg, require medical consultation. MAX total patient dose of 80 mg.

c) Hypertensive patients with SBP greater than or equal to 220 mmHg AND DBP greater than or equal to 120 mmHg, and chest pain with suspected/diagnosed aortic syndromes: medical consultation required for dosing and blood pressure targets.