

Lidocaine 2%

Intraosseous Access and Infusion Procedure

I	Adult	40 mg very slowly over 1-2 minutes followed by a 10 cc saline flush. This is done prior to the 10cc bolus of fluid and connecting the IV tubing. An additional 20 mg can be given if needed.
	Pediatric	0.5 mgs/kg, max of 40mg, administer slowly over 1-2 minutes as indicated above Weight Based Pediatric Dosing Chart Link

Adult Cardiac Arrest Adult Wide Complex Tachycardia Regular Rhythm Adult Wide Complex Tachycardia Irregular Rhythm Pediatric Cardiac Arrest Adult Medical Hypothermia

P	Adult	Initial dose 1-1.5 mg/kg IV/IO. Additional doses of 0.5-0.75 mg/kg may be given q 5 minutes up to a max dose of 3 mg/kg. (Hypothermia gets one dose only of 1.0 to 1.5 mg/kg)
	Pediatric	1 mg/kg IV/IO. Repeat PRN 0.5 mg/kg q 3-5 minutes up to total of 3 mg/kg Weight Based Pediatric Dosing Chart Link

KEY POINT

The benefit of Lidocaine is probably limited to VT caused by cardiac ischemia.

DO NOT ADMINISTER LIDOCAINE if you suspect hyperkalemia (e.g. renal failure patients on dialysis) or if the underlying rhythm is believed secondary to an overdose by an agent that blocks sodium channels (e.g. tricyclic antidepressants, phenothiazines, B-blockers, antihistamines and cocaine). These rare cases should have Sodium Bicarbonate administered as an alternative to Lidocaine

Class:

- Antiarrhythmic, Anesthetic

Description of Use:

- Decreases the depolarization, automaticity, and excitability of the ventricles during diastole by direct action to inhibit ventricular arrhythmias
- Inhibits the conduction of nerve impulses

Pharmacokinetics: (Route: IV)

- Onset: 30-90 sec
- Half-life: 10-20 min

Special Populations:

- Pregnancy Category: B
- Children: No age-related precautions noted
- Elderly: More sensitive to adverse effects. Dose and rate of infusion should be reduced. Age-related renal impairment may require dosage adjustment

Contraindications:

- Hypersensitivity
- Adams-Stokes syndrome, supraventricular arrhythmias, severe heart blocks, WPW syndrome
- Cautions: hepatic disease, CHF, respiratory depression, malignant hyperthermia, myasthenia gravis

Adverse reactions:

- Lightheadedness, nervousness, confusion, dizziness, drowsiness, tinnitus, blurred/double vision, vomiting, tremors, respiratory depression/arrest, bradycardia, hypotension, cardiovascular collapse