Classification
Local Anesthetic

Prehospital Indications
Multiple provider impressions: patients responsive to pain that have intraosseous (IO) access

Other Common Indications
Topical, transmucosal or intradermal anesthesia
Ventricular arrhythmias refractory to other treatments

Adult Dose
2% 40mg slow IO push over 2 minutes; may give second dose of 20 mg x1 prn

Pediatric Dose
2% 0.5mg/kg (20mg/mL) slow IO push over 2 minutes, dose per MCG 1309, not to exceed adult dose; may repeat second dose at half the initial dose x1 prn

Mechanism of Action
Inhibits sodium ion channels, stabilizing neuronal cell membranes causing a nerve conduction blockage

Pharmacokinetics
Onset is 2 min; peak in 3-5 min; duration is 10-20 min

Contraindications
None, when used for anesthesia in IO placement

Interactions
No significant interaction at therapeutic doses for IO placement. In larger doses, multiple interactions possible including potentiation of fentanyl and amiodarone.

Adverse Effects
None for IO use, high doses have been associated with increased risk of seizure

Prehospital Considerations
- This should be given pre-infusion if IV fluids or infusion of other medications through the IO on patients that are responsive to pain.
- Lidocaine 2% (preservative and epinephrine free) should be used.
- Slow infusion is necessary to ensure the lidocaine remains in the medullary space.
- A base order is not needed to administer lidocaine as part of the IO procedure.