

CLASS: A

PROTOCOL(S) USED IN: Cardiac Arrest V-tach/V-fib, Tachydysrhythmia-Vtach, Intraosseous Access & Infusion

PHARMACOLOGY AND ACTIONS:

- A. Depresses automaticity of Purkinje fibers thus increasing ventricular fibrillation threshold.
- B. Decreases conduction rate and force of contraction mainly at toxic levels.
- C. Single bolus effect disappears in 10-20 minutes due to redistribution in the body.
- D. Metabolic half-life is about 2 hours; toxicity develops with repeated doses.

INDICATIONS:

- A. Local anesthetic for IO placement.
- B. V-tach with a pulse
- C. Pulseless V-tach/V-fib arrest

CONTRAINDICATIONS:

- A. Supraventricular dysrhythmias
- B. Atrial fibrillation or flutter
- C. 2nd or 3rd degree heart blocks
- D. Hypotension

SIDE EFFECTS AND NOTES:

- A. Seizures, slurred speech, AMS

ADULT DOSING:

- A. **IO insertion**
0.5 mg/kg IO not to exceed 50 mg
- B. **V-tach with/without pulse or V-fib**
1-1.5 mg/kg IV/IO. If with a pulse, given over 2-3 minutes. Repeat dose of 0.5-0.75 mg/kg every 5-10 minutes up to 3 mg/kg. May consider post ROSC prophylactic infusion at 1 – 4 mg/min within the first hour of ROSC during EMS transport

PEDIATRIC DOSING:

- A. **IO Insertion**
Same as adult
- B. **V-tach with/without pulse or V-fib**
1 mg/kg IV/IO. May repeat after 15 minutes. May consider post ROSC prophylactic infusion at 20-50 mcg/kg/min within the first hour of ROSC during EMS transport

