

Q. Lidocaine Hydrochloride (Xylocaine®)

- I. Classification
 - Antidysrhythmic agent
- II. Actions
 - Suppresses ventricular dysrhythmias by stabilizing the myocardial cell membrane
- III. Indications
 - A. Ventricular dysrhythmias
 - Symptomatic PVCs
 - Ventricular tachycardia
 - B. Cardiac arrest
 - Ventricular fibrillation
 - Pulseless ventricular tachycardia
 - C. Post cardioversion/defibrillation of ventricular rhythms
- IV. Contraindications
 - Second degree heart block (Mobitz II)
 - Third degree heart block
 - Junctional rhythms
 - Idioventricular rhythm
 - Ventricular ectopy associated with bradycardia
- V. Adverse Effects
 - A. Cardiovascular
 - Bradycardia**
 - Hypotension**
 - Cardiac arrest**
 - B. Neurological
 - Light-headedness*
 - Drowsiness
 - Paresthesias
 - Restlessness
 - Confusion*
 - Slurred speech
 - Seizures**
 - Blurred vision
 - Tinnitus
 - Muscle twitching
 - C. Respiratory
 - Dyspnea
 - Respiratory depression
 - Respiratory arrest
 - D. Gastrointestinal
 - Nausea/vomiting

- VI. Adult Administration [by on-line MD order only]
- A. Ventricular dysrhythmias, Post cardioversion/defibrillation of ventricular rhythm
 - 1.5 mg/kg slow IV/IO at 50 mg/minute (Maximum dose is 3 mg/kg).
 - B. Cardiac arrest
 - 1.5 mg/kg slow IV/IO over 1 minute. Repeat 1.5 mg/kg IVP once if indicated. Maximum dose is 3 mg/kg).
 - C. Drips
 - Mix 200 mg in a 50 ml bag of NS or D5W (remove 10 cc of fluid prior to addition of lidocaine) and run at a rate of 2 - 4 mg/minute (30 to 60 drops/minute) IV/IO.
- VII. Pediatric Administration [by on-line MD order only]
- A. Ventricular dysrhythmias, Cardiac arrest, Post cardioversion/defibrillation of ventricular rhythm
 - 1 mg/kg slow IV/IO over 1 minute. If no conversion, repeat 1 mg/kg IV/IO two times. Maximum dose is 3 mg/kg.
- VIII. Onset
- 30-90 seconds
- IX. Duration
- 10 - 20 minutes
- X. Note
- Lidocaine is metabolized in the liver and excreted in the kidneys. A reduced dosage should be considered for patients with suspected liver or kidney disease, cardiogenic shock, congestive heart failure, and in the elderly. The initial dose does not need to be reduced, however, repeat boluses (maintenance dose) should be decreased to 0.25 mg/kg.