



GENERIC NAME: DILTIAZEM

BRAND NAME: Cardizem

CLASS: Calcium Channel Blocker Calcium antagonist

Mechanism of Action:

Pharmacological: Inhibits calcium ion influx across cell membranes during cardiac depolarization, decreases SA and AV conduction and dilates coronary and peripheral arteries and arterioles. **Clinical effects:** Slows the rapid ventricular rate associated with atrial fibrillation and atrial flutter, and reduces coronary and peripheral vascular resistance.

Indications and Field Use:

Rapid ventricular rates associated with atrial fibrillation and atrial flutter, and for PSVT refractory to adenosine.

Contraindications:

Severe Hypotension Hypotension (less than 90 mmHg systolic) Acute Myocardial infarction Cardiogenic shock Ventricular tachycardia or wide-complex VT of unknown origin Second or third-degree AV block Wolff-

Parkinson-White (WPW) syndrome Sick Sinus syndrome Concomitant IV Beta Blocker use within a few hours Hypersensitivity

Adverse Reactions:

CV: hypotension, bradycardia, heart block, chest pain, and asystole GI: nausea and vomiting CNS: headache, fatigue, drowsiness

NOTES ON ADMINISTRATION

Incompatibilities/Drug Interactions:

Avoid use in patients with poison- or drug-induced tachycardia. Calcium chloride can be used to prevent the hypotensive effects of this drug and treat patients with a calcium channel blocker overdose. Beta blocker use

Adult Dosage:

Initial: 0.25 mg/kg IVP (usually 20 mg) administered over 2 minutes If response is inadequate, repeat in 15 minutes: 0.35 mg/kg IVP administered over

2 minutes Maintenance infusion: 5.0 to 15 mg/hr

Pediatric Dosage:

The safety and efficacy of this drug for use in children has not been established.

Route of Administration:

Intravenous bolus(es) followed by a maintenance infusion Continuous infusion for maintenance: Dilute 125 mg (25ml) in D5/W, equals

1mg/ml Standard solution: Dilute 100mg (20 ml) in NS 80ml (1 mg/ml) Dosage: 5 to 10 mg/hr initially; may be adjusted to 15mg/hr if needed

Onset of Action:

IV - immediately

Peak Effects:

IV - 2 hours or less

Duration of Action:

IV - 4 to 6 hours

Dosage Forms/Packaging:

Injection - 5.0 mg/ml 5.0 ml and 10 ml vials Powdered Form-25 mg vial, (2)

Arizona Drug Box Supply Paramedic:

25 mg

References: Beck, Richard, Drug Reference for EMS Providers (Delmar, 2002).

Bledsoe, Bryan, Clayden, Dwayne, and Papa, Frank, Prehospital Emergency Pharmacology, 5th Edition (Mosby, 2001).

Consoulin, Sheryl, Sanders, Mick, and Raynovich, William, Prehospital Drug Therapy, 2nd Edition (Mosby, 2002).

Skidmore-Roth, Linda (Editor), 2004 Mosby's Nursing Drug Reference (Mosby, 2004).