

# CARDIZEM (DILTIAZEM)

## PHARMACOLOGY & MECHANISM OF ACTIONS:

- ❑ Calcium channel blocker
- ❑ Decreases the sinoatrial node automaticity
- ❑ Increases AV node refractory
- ❑ May terminate re-entrant arrhythmias that require AV nodal conduction for their continuation
- ❑ Causes coronary and peripheral vasodilatation
- ❑ Metabolized by the liver and excreted by kidneys
- ❑ Onset of action 2-5 minutes
- ❑ Slows AV node conduction making it an excellent agent for slowing Atrial Fibrillation or Atrial Flutter, and the conversion of PSVT. It will achieve these goals in less than 7 minutes in over 80-90% of patients.

## INDICATIONS:

- ❑ Symptomatic but hemodynamically stable rapid response Atrial Fibrillation or Flutter- greater than 120 bpm

## CONTRAINDICATIONS:

- ❑ Acute atrial fibrillation in a patient with known history of WPW.
- ❑ Any patient with a history of sick sinus syndrome, or second or third degree heart block, who does not have a pacemaker in place. Conversion in these patients can cause severe bradycardia.
- ❑ Pregnancy
- ❑ Hypotension. Results may be variable, and hypotension will occur in <4% of patients who receive this drug. It should not be given to a patient whose blood pressure is less than 120mmHg.
- ❑ Wide complex tachycardia. This drug can be dangerous in VT. Unless previously known to be PSVT by history from the patient don't use it in this situation. Adenosine or cardioversion will be first line treatments.
- ❑ Children under 15 years of age without Med. Consult.
- ❑ Allergy or sensitivity to Diltiazem
- ❑ Poison or drug induced tachycardia

## ADMINISTRATION:

ADULT	PEDIATRIC
<div style="display: flex; align-items: center;"> <div style="background-color: red; color: white; padding: 5px; writing-mode: vertical-rl; transform: rotate(180deg); font-weight: bold; margin-right: 5px;">PARAMEDIC</div> <ul style="list-style-type: none"> <li>❑ 15-20mg slow IVP (over 2 min)</li> <li>❑ Repeat after 15 min at 10-15mg slow IVP (over 2 min)</li> <li>❑ Consult Medical Control for additional dosing</li> </ul> </div>	<div style="display: flex; align-items: center;"> <div style="background-color: red; color: white; padding: 5px; writing-mode: vertical-rl; transform: rotate(180deg); font-weight: bold; margin-right: 5px;">PARAMEDIC</div> <div style="flex-grow: 1; text-align: center;"> <p style="font-weight: bold; margin: 0;"><i>CONTACT OLMC</i></p> </div> </div>

## PRECAUTIONS & SIDE EFFECTS:

- ❑ Hypotension
- ❑ Transient PVC's after administration, consider benign
- ❑ Heart block
- ❑ Bradycardia
- ❑ Chest pain
- ❑ Itching/burning

## **CARDIZEM (DILTIAZEM) CONT.**

- ❑ Flushing
- ❑ In the rare patient who experiences sustained hypotension (SBP<90mmHg) after administration of Cardizem, place patient in supine position, if not already, and try small trial of IV fluid. If pulmonary edema presents, defer fluid challenge and contact OLMC.
- ❑ Drug interactions can be seen with Cyclosporin and Tegretol by increasing their levels. This will not be a problem in the pre-hospital phase, but should be passed on to the receiving facility.

### **SPECIAL NOTES:**

- ❑ Pregnancy Category C
- ❑ Shelf life of one month without refrigeration.
- ❑ Diltiazem will rarely convert PSVT, but will slow the rate, which will improve cardiac output.