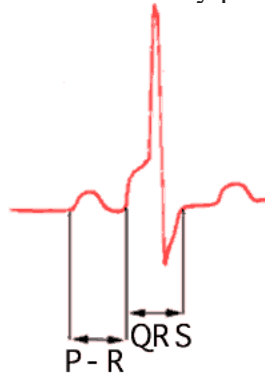


J. Diltiazem (Cardizem®)

- I. Classification
 - Anti-arrythmic
- II. Actions
 - Inhibits the influx of calcium ions during membrane depolarization of cardiac and vascular smooth muscle.
 - Decreases total peripheral resistance resulting in a decrease in both systolic and diastolic blood pressure.
- III. Indications
 - Atrial Fibrillation/Flutter with rapid ventricular response
- IV. Contraindications
 - Should not be used in patients with Atrial Fibrillation/Flutter associated with an accessory bypass tract such as in Wolff-Parkinson-White (WPW) syndrome.
- V. Adverse effects
 - A. Cardiovascular
 - Hypotension
 - Arrythmia
 - B. Neurological
 - Dizziness
 - C. Gastrointestinal
 - Dry mouth
 - Vasodilation
 - Parasthesias
 - Nausea/vomiting
- VI. Administration
 - A. Adult
 - 10 - 20 mg slow IV/IO over 2 minutes
- VII. Onset
 - IV/IO - 3 minutes
- VIII. Duration
 - IV/IO - 1-3 hours
- IX. Note
 - A. The use of Diltiazem for control of ventricular response in patients with atrial fibrillation or atrial flutter should be undertaken with caution when the patient is compromised hemodynamically or is taking other drugs that decrease any or all of the following: peripheral resistance, myocardial filling, myocardial contractility, or electrical impulse propagation in the myocardium.
 - B. When administering Diltiazem, continuous monitoring of the ECG and frequent measurement of blood pressure shall be maintained.
 - C. Diltiazem and IV beta-blockers should not be administered together or in close proximity (within a few hours).

D. Wolff-Parkinson-White (WPW) Syndrome

- Electrically active muscle fibers bridge the atria and ventricles - and cause pre-excitation of the ventricles. This accessory pathway is able to conduct faster than the AV node.
- WPW is a reentry mechanism with an accessory pathway.



- PR interval is shorter (less than 3 small squares (120 ms))
- Upstroke of the QRS wave is slurred; this is known as a delta wave.
- 12 lead ECG is essential as delta wave may not show up in all leads.