## ADENOSINE (generic), ADENOCARD (brand)

**ACTION:** Slows conduction through AV node of the heart. It is cleared very rapidly, having a half-life of less than 10 seconds.

**INDICATIONS:**
1. Conversion of paroxysmal supraventricular tachycardia (narrow complex tachycardia) to normal sinus rhythm (NSR)

**CONTRAINDICATIONS:**
1. Heart block
2. Sick sinus syndrome, atrial fibrillation or atrial flutter

**PRECAUTIONS:**
**1.** Frequently followed by several seconds of asystole. Provide emotional support to the patient.

**ADVERSE REACTIONS/SIDE EFFECTS:** (usually very short-lived)
1. Dyspnea and bronchoconstriction (especially in patients with asthma and COPD)
2. Palpitations and chest pain
3. Hypotension
4. Facial flushing and headache
5. At the time of conversion, a variety of new rhythms may appear on the ECG. Short-lasting first, second or third degree heart block or *transient* asystole may result after administration. Due to the drug's short half-life, these effects are *generally* self-limiting.
6. In doses of 6-12 mg, there are usually no hemodynamic side effects, i.e. hypotension.

**ADMINISTRATION:**
1. A 6 mg IV/IO bolus may be given before contacting medical control. Document effect on rhythm on ECG strip.
2. If rhythm does not convert or does not slow enough to allow diagnosis, a second dose of 12 mg may be given prior to medical control contact.
3. Adenosine IV/IO injection must be given rapidly. This can be facilitated by: 1) using the IV/IO med port closest to the patient, 2) following the med with a fluid flush to assure all of the drug has cleared the IV tubing, 3) using a larger bore IV catheter, and 4) elevating the arm during administration.
4. Further orders must come from monitoring physician.

**SPECIAL NOTES:**
1. After the administration of adenosine, a rhythm other than PSVT may be evident, resulting in the choosing of a different form of treatment.

**PEDIATRIC CONSIDERATIONS:**
1. Do not give to patients < 12 years without physician order.
2. Dose is 0.1 – 0.2 mg/kg (max 12 mg. single dose) rapid IV or IO.