

# Adenosine (Adenocard)

## Formulary

Douglas County Kansas EMS System

March 2021

**Approved Provider:** Paramedic

**Reference Protocols:** [Dysrhythmia](#)

Dosing and Administration	
<b>ADULT Medications:</b> <ul style="list-style-type: none"><li>6mg repeat at 12 mg in 1-2 min. 3<sup>rd</sup> dose of 12 in 1-2 min IV/IO (AC preferred)</li></ul>	<b>PEDIATRIC Medications:</b> Refer to HandTevy <ul style="list-style-type: none"><li>0.1mg/kg (6mg max) repeat at 0.2mg/kg IV/IO (12mg max) (AC preferred)</li></ul>

### **Pharmacology and Actions:**

- Slows conduction through the AV node, disrupting AV nodal reentry
- Half-life is less than 10 seconds due to cellular uptake and metabolism

### **Indications:**

- Regular rhythm narrow complex tachycardia >150 BPM in adults or > 220 BPM in pediatrics
- Adenosine may be indicated while setting up to sedate and cardiovert the patient

### **Contraindications:**

- Patient with allergy to adenosine
- Poison induced tachycardias, e.g. Cocaine
- History of Wolf-Parkinson White Syndrome
- Sick-sinus syndrome
- 2<sup>nd</sup> and 3<sup>rd</sup> degree AV heart block

### **Precautions:**

- May produce transient first, second or third degree AV blocks or asystole
- May cause bronchospasms in asthma patients
- Effects are potentiated by dipyridamole (Persantine) and carbamazepine (Tegretol)
- Is not effective in:
  - Sinus Tachycardia
  - Atrial Fibrillation /Atrial Flutter
  - Ventricular Tachycardia
  - If the cardiac rate is less than the designated criteria rate, consider other etiologies and contact medical control to discuss etiology and treatment

### **Administration:**

- Establish vascular access as close to the core as is practical, preferred location antecubital or humeral head IO
- Short ½ life (<10 seconds). Administer by rapid IV bolus at injection port closest to patient and follow by a saline flush
- Only acceptable routes of administration are IV/IO

# Adenosine (Adenocard)

Formulary

Douglas County Kansas EMS System

March 2021

## **Side Effects:**

- Frequent, transient side effects include:
  - Facial flushing
  - Dyspnea/ Chest pressure
  - Nausea
  - Headache/Light headedness