ADENOSINE (Adenocard)

ACTION: Antiarrhythmic

- Decreases conduction through the atrioventricular (AV) node interrupting re-entry pathways.
- Interrupts and may convert paroxysmal supraventricular tachycardia (PSVT).

INDICATIONS:

- Hemodynamically stable PSVT.
- Hemodynamically unstable PSVT as substitute for cardioversion

CONTRAINDICATIONS:

- 2nd or 3rd degree AV block
- Sick sinus syndrome.
- Polymorphic wide complex tachycardia
- Do not use **Adenosine** on a patient with a known history of Wolff-Parkinson-White (WPW) syndrome.

POTENTIAL SIDE EFFECTS:

- Transient asystole (up to 20 to 30 secs.)
- Hypotension
- Dyspnea and bronchospasms
- Facial flushing and headaches
- Chest pressure
- Nausea

ADULT DOSE/ROUTE:

- **First dose**: 6 mg rapid IVP/IO* followed with 20 ml Normal Saline flush.
- If first dose ineffective, repeat with 12 mg rapid IVP/IO. * May repeat 12mg x 1 if still ineffective.

**IV preferred route, ideally at, or proximal to, the antecubital fossa*

PEDIATRIC DOSE/ROUTE:

- **First dose**: 0.1 mg/kg rapid IVP/IO*followed by 10ml NS flush (max first dose 6 mg).
- If first dose ineffective, repeat with 0.2 mg/kg rapid IVP/IO* (max second dose 12 mg). May repeat 0.2 mg/kg x 1 if still ineffective.

** IV preferred route, ideally at, or proximal to, the antecubital fossa*

NOTES:

- Clinically evaluate patients—adult and pediatric—to distinguish primary tachyarrhythmias such as PSVT—from patient conditions leading to sinus tachycardias.
- Adenosine is blocked by methylxanthines (caffeine) and potentiated by dipyridamole and carbamazepine.