Guidelines for the Use of Adenosine (Adenocard®)

Recommended Neonatal Dose, Route, and Interval

- **Starting dose:** 50 mcg/kg/dose rapid IV push (1-2 sec). Increase dose in 50 mcg /kg increments q2 min until return of sinus rhythm or until a maximum of 250 mcg/kg.
- Rapidly flush line with 2 ml normal saline after each dose
- Infuse as close to IV site as possible.
- May be given intraosseous
- Response should occur within 2 minutes of the dose.

Primary Indications

1. Supraventricular tachycardia unresponsive to vagal maneuvers.

Possible Adverse Reactions

1. Transient arrhythmias (PAC,PVC), recurrence of SVT
2. Facial flushing, dyspnea, bronchospasm and irritability occur frequently

Side effects last less than one minute due to rapid metabolism of drug.

Contraindications and Precautions

1. Hypersensitivity to adenosine
2. Sick sinus syndrome
3. 2nd or 3rd degree A-V block without pacemaker
4. Atrial fibrillation
5. Ventricular tachycardia

Nursing Implications

1. It is very important that medication be given rapid IV bolus (1-2 sec.).
2. Infuse as close to IV site as possible and flush with NS after each dose
3. Continuous ECG and BP monitoring

Special Considerations and Calculations

1. Caffeine and theophylline block the effect of adenosine. Larger doses of adenosine may be required.
2. Recurrence of SVT occurs in approximately 30% of treated patients
3. Adenosine has become the drug of choice over verapamil for SVT in children of any age. Its major therapeutic advantage is that it works within 15 to 30 seconds and has a half-life of < 10 seconds so the side effects last less than one minute.
4. Reconstituted in NS - supplied as 6mg/2mL
5. Dilutions can be made with NS for doses < 0.2 ml (0.6 mg)
6. Store at room temperature - DO NOT refrigerate because crystallization will occur
References:
  1. Neofax 2010

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