

ABCIXIMAB (REOPRO)



MECHANISM OF ACTION:

Prevents the aggregation of platelets by inhibiting the integrin GP IIb/IIIa receptor.

INDICATIONS:

- UA/NSTEMI patients undergoing planned or emergent PCI

ADVERSE REACTIONS:

- Bleeding from the GI tract
- Internal bleeding
- Intracranial hemorrhage
- Hypotension
- Stroke
- Anaphylactic shock

ABCIXIMAB (ReoPro)

CONTRAINDICATIONS:

- Bleeding from any source
- Severe uncontrolled hypertension
- Surgery or trauma within the previous 6 weeks
- Stroke within the previous 30 days
- Renal failure
- Thrombocytopenia
- Intracranial mass

DOSAGE:

UA/NSTEMI with Planned PCI within 24 Hours:

- 0.25 mg/kg IV, IO (10 to 60 minutes prior to procedure), then 0.125 mcg/kg/min IV, IO infusion for 12 to 24 hours

Percutaneous Coronary Intervention Only:

- 0.25 mg/kg IV, IO, then 10 mcg/min IV, IO infusion



MECHANISM OF ACTION:

When certain chemicals and toxins are in proximity to the activated charcoal, the chemical will attach to the surface of the charcoal and become trapped.

INDICATIONS:

- Toxic ingestion

ADVERSE REACTIONS:

- Nausea/vomiting
- Constipation or diarrhea
- If aspirated into the lungs, charcoal can induce a potentially fatal form of pneumonitis.

ACTIVATED CHARCOAL

CONTRAINDICATIONS:

- Ingestion of acids
- Alkalis
- Ethanol
- Methanol
- Cyanide
- Ferrous sulfate or other iron salts
- Lithium
- Coma
- GI obstruction

DOSAGE:

Adult: 50 to 100 g/dose

Pediatric: 1 to 2 g/kg

ADENOSINE (ADENOCARD)

CONTRAINDICATIONS:

- Sick sinus syndrome
- Second- or third-degree heart block
- Poison- or drug-induced tachycardia

DOSAGE:

Note: Adenosine should be delivered only by rapid IV bolus with a peripheral IV or directly into a vein, in a location as close to the heart as possible, preferably in the antecubital fossa. Administration of adenosine should be immediately followed by a saline flush, and then the extremity should be elevated.

Adult:

- 6 mg rapid IV, IO (over a 1- to 3-second period) immediately followed by a 20-mL rapid saline flush
- If the first dose does not eliminate the rhythm in 1 to 2 minutes, 12 mg rapid IV, IO; repeat a second time if required

Pediatric:

- **For children >50 kg:** same as adult dosing.
- **For children <50 kg:** 0.1 mg/kg IV, IO (max dose: 6 mg) immediately followed by a \geq 5-mL rapid saline flush; may repeat at 0.2 mg/kg (max dose: 12 mg)



INDICATIONS:

- Expand intravascular volume

ADVERSE REACTIONS:

- Allergic reaction in some patients
- An excessive volume of fluid can result in CHF and pulmonary edema in susceptible patients.

CONTRAINDICATIONS:

- Severe anemia or cardiac failure in the presence of normal or increased intravascular volume
- Solution appears turbid or if 4 hours has elapsed since the container was opened
- Known sensitivity

MECHANISM OF ACTION:

Increases oncotic pressure in intravascular space.

ALBUMIN

DOSAGE:

Two preparations: 500 mL of a 5% solution and 100 mL of a 25% solution

Adult:

- **5% albumin:** 500 to 1000 mL IV, IO
- **25% albumin:** 50 to 200 mL IV, IO

Pediatric:

- **5% albumin:** 12 to 20 mL IV, IO; the initial dose may be repeated in 15 to 30 minutes if the clinical response is inadequate.
- **25% albumin:** 2.5 to 5 mL/kg IV, IO
- Alternatively, one may administer based on grams of albumin at 0.5 to 1 g/kg/dose IV, IO; may repeat as needed (max dose: 6 g/kg/day).



MECHANISM OF ACTION:

Binds and stimulates beta₂ receptors, resulting in relaxation of bronchial smooth muscle.

INDICATIONS:

- Asthma, bronchitis, COPD

ADVERSE REACTIONS:

- Hyperglycemia
- Hypokalemia
- Palpitations, anxiety, insomnia
- Sinus tachycardia
- Tremor
- Nausea/vomiting
- Throat irritation, dry mouth, epistaxis
- Hypertension
- Dyspepsia
- Headache
- Paradoxical bronchospasm

CONTRAINDICATIONS:

- Angioedema
- Sensitivity to albuterol or levalbuterol

ALBUTEROL (PROVENTIL, VENTOLIN)

DOSAGE:

Acute Bronchospasm:

Adult:

- **MDI:** 4 to 8 puffs every 1 to 4 hours may be required.
- **Nebulizer:** 2.5 to 5 mg every 20 minutes (max: 3 doses). After the initial three doses, escalate the dose or start a continuous nebulization at 10 to 15 mg/hr.

Pediatric:

- **MDI:**
 - **4 years and older:** 2 inhalations every 4 to 6 hours. In some patients, however, 1 inhalation every 4 hours is sufficient.
 - **Younger than 4 years:** administer by nebulization.

• Nebulizer:

- **Older than 12 years:** 0.5 mg/kg/hr
- **Younger than 12 years:** 0.15 mg/kg every 20 minutes (max: 3 doses) or 0.5 mg/kg per hour

Asthma in Pregnancy:

- **MDI:** 2 inhalations every 4 hours. In acute exacerbation, start with 2 to 4 puffs every 20 minutes.
- **Nebulizer:**
 - 2.5 mg (0.5 mL) by 0.5% nebulization solution.
 - Place 0.5 mL of the albuterol solution in 2.5 mL of sterile normal saline.
 - Flow is regulated to deliver the therapy over 5- to 20-minutes.
 - In refractory cases, some physicians order 10 mg nebulized over 60-minutes.



INDICATIONS:

- Second-line treatment (if bronchodilator is ineffective) in COPD or severe acute asthma exacerbations during medical transport

ADVERSE REACTIONS:

- Headache
- Cough
- Nausea
- Arrhythmias
- Paradoxical acute bronchospasm

MECHANISM OF ACTION:

Binds and stimulates beta₂ receptors, resulting in relaxation of bronchial smooth muscle, and antagonizes the acetylcholine receptor, producing bronchodilation.

ALBUTEROL/IPRATROPIUM (COMBIVENT)

CONTRAINDICATIONS:

- Allergy to soybeans or peanuts
- Known sensitivity to atropine, albuterol, or their respective derivatives
- Used with caution in patients with asthma, hypertension, angina, cardiac arrhythmias, tachycardia, cardiovascular disease, congenital long QT syndrome, closed-angle glaucoma

DOSAGE:

Adult: 2 puffs inhaled every 6 hours by MDI, with a maximum daily dose of 12 puffs/day

Pediatric: Not recommended for pediatric patients

**ADVERSE REACTIONS:**

- Seizures
- Cardiac arrest
- Arrhythmias
- Nausea/vomiting
- Abdominal pain or cramping
- Headache
- Tachycardia
- Palpitations
- Anxiety
- Ventricular arrhythmias

CONTRAINDICATIONS:

- Known sensitivity
- Use with caution in liver disease, kidney disease, seizures, and cardiac arrhythmias

MECHANISM OF ACTION:

Relaxes the smooth muscle of the bronchial airways and pulmonary blood vessels and may also have antiinflammatory properties.

INDICATIONS:

- Bronchospasm

AMINOPHYLLINE

DOSAGE:

A loading dose is first administered, followed by an infusion.

Adult:

- Load with 5 mg/kg IV, IO slowly over a 20- to 30-minute period, followed by an infusion
- An infusion rate of 0.4 mg/kg/hr is effective for a nonsmoker; but a patient who smokes can require a high infusion rate at 0.8 mg/kg/hr IV, IO.
- When treating patients with CHF, reduce the dose to 0.2 mg/kg/hr.

Pediatric:

- Load with 5 mg/kg slow IV, IO over a 20-minute period
- **Older than 12 years:** 0.4 mg/kg/hr IV, IO
- **10 to 12 years:** 0.7 mg/kg/hr IV, IO
- **1 to 9 years:** 0.8 to 1 mg/kg/hr IV, IO
- **6 months to 1 year:** 0.6 to 0.7 mg/kg/hr IV, IO
- **6 to 24 weeks:** 0.5 mg/kg/hr IV, IO



INDICATIONS:

- Ventricular arrhythmias
- Second-line agent for atrial arrhythmias

ADVERSE REACTIONS:

- Burning at the IV site
- Hypotension
- Bradycardia

CONTRAINDICATIONS:

- Sick sinus syndrome
- Second- and third-degree heart block
- Cardiogenic shock
- When episodes of bradycardia have caused syncope
- Sensitivity to benzyl alcohol and iodine

MECHANISM OF ACTION:

Acts directly on the myocardium to delay repolarization and increase the duration of the action potential.

AMIODARONE (CORDARONE)

DOSAGE:

Ventricular Fibrillation and Pulseless Ventricular Tachycardia:

Adult: 300 mg IV/IO; may be followed by one dose of 150 mg in 3 to 5 minutes

Pediatric: 5 mg/kg (max dose: 300 mg); may repeat 5 mg/kg IV, IO up to 15 mg/kg

Relatively Stable Patients with Arrhythmias such as Premature Ventricular Contractions or Wide Complex Tachycardias with a Strong Pulse:

Adult: 150 mg in 100 mL D₅W IV, IO over a 10-minute period; may repeat in 10 minutes up to a maximum dose of 2.2 g over 24 hours

Pediatric: 5 mg/kg very slow IV, IO (over 20 to 60 minutes); may repeat in 5-mg/kg doses up to 15 mg/kg (max dose: 300 mg)

MECHANISM OF ACTION:

Blocks the enzyme responsible for the production of angiotensin II, resulting in a decrease in blood pressure.

INDICATIONS:

- Congestive heart failure
- Hypertension
- Postmyocardial infarction

ADVERSE REACTIONS:

- Chest pain
 - Hypotension
 - Palpitations
 - Cough
 - Dyspnea
 - Upper respiratory infection
 - Nausea/vomiting
 - Rash
 - Pruritus
 - Angioedema
 - Renal failure
- Headache
 - Dizziness
 - Fatigue
 - Depression

ANGIOTENSIN-CONVERTING ENZYME (ACE) INHIBITORS: CAPTOPRIL (CAPOTEN), ENALAPRIL (VASOTEC), LISINAPRIL (PRINIVIL, ZESTRIL), RAMIPRIL (ALTACE)

CONTRAINDICATIONS:

- Angioedema related to previous treatment with an ACE inhibitor
- Known sensitivity
- Use with caution in aortic stenosis, bilateral renal artery stenosis, hypertrophic obstructive cardiomyopathy, pericardial tamponade, elevated serum potassium levels, acute kidney failure

DOSAGE:

Medication is administered orally. Dosage is individualized.

**INDICATIONS:**

- Fever
- Inflammation
- Angina
- Acute MI
- Patients complaining of pain, pressure, squeezing, or crushing in the chest that may be cardiac in origin

ADVERSE REACTIONS:

- Anaphylaxis
- Angioedema
- Bronchospasm
- Bleeding
- Stomach irritation
- Nausea/vomiting

MECHANISM OF ACTION:

This prevents the formation of a chemical known as thromboxane A_2 , which causes platelets to clump together, or aggregate, and form plugs that cause obstruction or constriction of small coronary arteries.

ASPIRIN, ASA

CONTRAINDICATIONS:

- GI bleeding
- Active ulcer disease
- Hemorrhagic stroke
- Bleeding disorders
- Children with chickenpox or flulike symptoms
- Known sensitivity

DOSAGE:

Note: "Baby aspirin" 81 mg, standard adult aspirin dose 325 mg

Myocardial Infarction:

Adult: 160 to 325 mg PO (alternatively, four 81-mg baby aspirin are often given), 300-mg rectal suppository

Pediatric: 3 to 5 mg/kg/day to 5 to 10 mg/kg/day given as a single dose

Pain or Fever:

Adult: 325 to 650 mg PO (1 to 2 adult tablets) every 4 to 6 hours

Pediatric: 60 to 90 mg/kg/day in divided doses every 4 to 6 hours