

(continued)

Drug	Indications	Precautions/ Contraindications	Adult Dosage
Atropine Sulfate <i>Can be given via endotracheal tube</i>	<ul style="list-style-type: none">• First drug for symptomatic sinus bradycardia• May be beneficial in presence of AV nodal block. Not likely to be effective for type II second-degree or third-degree AV block or a block in nonnodal tissue• Routine use during PEA or asystole is unlikely to have a therapeutic benefit• Organophosphate (eg, nerve agent) poisoning: extremely large doses may be needed	<ul style="list-style-type: none">• Use with caution in presence of myocardial ischemia and hypoxia. Increases myocardial oxygen demand• Avoid in hypothermic bradycardia• May not be effective for infranodal (type II) AV block and new third-degree block with wide QRS complexes. (In these patients, may cause paradoxical slowing. Be prepared to pace or give catecholamines)• Doses of atropine <0.5 mg may result in paradoxical slowing of heart rate	Bradycardia (With or Without ACS) <ul style="list-style-type: none">• 0.5 mg IV every 3 to 5 minutes as needed, not to exceed total dose of 0.04 mg/kg (total 3 mg)• Use shorter dosing interval (3 minutes) and higher doses in severe clinical conditions Organophosphate Poisoning Extremely large doses (2 to 4 mg or higher) may be needed
Dopamine IV infusion	<ul style="list-style-type: none">• Second-line drug for symptomatic bradycardia (after atropine)• Use for hypotension (SBP \leq 70 to 100 mm Hg) with signs and symptoms of shock	<ul style="list-style-type: none">• Correct hypovolemia with volume replacement before initiating dopamine• Use with caution in cardiogenic shock with accompanying CHF• May cause tachyarrhythmias, excessive vasoconstriction• Do not mix with sodium bicarbonate	IV Administration <ul style="list-style-type: none">• Usual infusion rate is 2 to 20 mcg/kg per minute• Titrate to patient response; taper slowly
Epinephrine <i>Can be given via endotracheal tube</i> <i>Available in 1:10 000 and 1:1000 concentrations</i>	<ul style="list-style-type: none">• Cardiac arrest: VF, pulseless VT, asystole, PEA• Symptomatic bradycardia: Can be considered after atropine as an alternative infusion to dopamine• Severe hypotension: Can be used when pacing and atropine fail, when hypotension accompanies bradycardia, or with phosphodiesterase enzyme inhibitor• Anaphylaxis, severe allergic reactions: Combine with large fluid volume, corticosteroids, antihistamines	<ul style="list-style-type: none">• Raising blood pressure and increasing heart rate may cause myocardial ischemia, angina, and increased myocardial oxygen demand• High doses do not improve survival or neurologic outcome and may contribute to postresuscitation myocardial dysfunction• Higher doses may be required to treat poison/drug-induced shock	Cardiac Arrest <ul style="list-style-type: none">• IV/IO dose: 1 mg (10 mL of 1:10 000 solution) administered every 3 to 5 minutes during resuscitation. Follow each dose with 20 mL flush, elevate arm for 10 to 20 seconds after dose• Higher dose: Higher doses (up to 0.2 mg/kg) may be used for specific indications (β-blocker or calcium channel blocker overdose)• Continuous infusion: Initial rate: 0.1 to 0.5 mcg/kg per minute (for 70-kg patient: 7 to 35 mcg per minute); titrate to response• Endotracheal route: 2 to 2.5 mg diluted in 10 mL NS Profound Bradycardia or Hypotension 2 to 10 mcg per minute infusion; titrate to patient response

(continued)