Drug	Indication	Dosing	Cautions	Comments
Activated Charcoal	Ingestion – only if recommended by Poison Control	50 g PO	Contraindicated for patients with AMS, ingestion of acids or alkalis, isolated ingestions of lithium, iron, heavy metals or ethanol	Risk of aspiration. Be prepared for vomitting
Adenosine	Narrow complex tachycardia	Initial – 6 mg rapid IV Repeat – 12 mg rapid IV Follow each dose with 20 ml NS rapid IV	May cause transient heart block or asystole. Use ½ dose for patients taking carmbamazepine or dipyramidole. Do not administer if patient is experiencing acute asthma exacerbation.	Side effects include: chest pressure/pain, palpitations, hypotension, dyspnea, or feeling of impending doom.
Albuterol	Bronchospasm  Crush injury/ Hyperkalemia	5mg nebulized Repeat as needed  10 mg nebulized continuously	Use caution in patients taking MAOIs (antidepressants Phenelzine and Tarnylcypromine)	None
Aspirin	Chest pain – suspected cardiac or STEMI	324 mg PO	Contraindicated in aspirin or salicylate allergy.	Blood thinner use is not a contraindication.
Atropine	Symptomatic bradycardia	Initial – 0.5 mg IV/IO Repeat every 3-5 min. to a max of 3 mg	Doses less than 0.5mg can cause paradoxical bradycardia.	Can dilate pupils, aggravate glaucoma, cause urinary retention, confusion, and dysrhythmias including V-Tach and V-Fib. Increases myocardial oxygen consumption. Bradycardia in children is primarily related to respiratory issues – assure adequate ventilation first.
	Organophosphate overdose	Initial – 1-2 mg IV/IO/IM Repeat every 3-5 min. until relief of symptoms is achieved		

Drug	Indication	Dosing	Cautions	Comments
Calcium Chloride	Calcium channel blocker OD	1 g IV/IO over 60 seconds	Use cautiously or not at all in patients on digitalis. Avoid extravasation. Rapid administration can cause dysrhythmias or arrest.	None
	Crush injury			
	Hyperkalemia			
Dextrose 10%	Hypoglycemia	Initial – 100 ml IV  Repeat – 150 ml if glucose remains ≤ 70 mg/dl and patient remains altered	Can cause tissue necrosis if IV is infiltrated	Recheck blood glucose after administration.
	Allergic reaction	50 mg IV/IO/IM	None	May cause drowsiness
Diphenhydramine	For nausea in pregnancy < 20 weeks	25 mg IV/IO/IM		
	Dystonic reaction	25-50 mg IV/IO or 50 mg IM		
Dopamine	Persistent hypotension unrelated to hypovolemia <i>or</i> symptomatic bradycardia	400 mg in 250 ml NS Infuse at 5-20 mcg/kg/ min titrated to response	None	None
	Anaphylaxis	0.3 mg IM	Never administer IV/IO.	None
Epi 1:1,000	Asthma/COPD or respiratory distress		Use with caution in asthma patients with a history of hypertension or coronary artery disease. May cause serious dysrhythmias or exacerbate angina.	
	Stridor	1 ml mixed with 3ml saline nebulized		
Epi 1:10,000	Cardiac arrest	1 mg IV/IO every 3-5 min.	May cause serious dysrhythmias or exacerbate angina. In adult anaphylactic patients, should be used if patient is hypotensive or no improvement after two (2) Epi 1:1,000 IM doses.	None
	Cardiac arrest/ Bradycardia			
	Anaphylaxis	0.1 mg slow IV/IO  May repeat every 3-5  min. as needed to a  max of 0.5 mg		



Drug	Indication	Dosing	Cautions	Comments
EpiPen	Allergic reaction/ Anaphylaxis	1 auto-injector	See Epinephrine 1:1,000 and Epinephrine 1:10,000	See Epinephrine 1:1,000 and Epinephrine 1:10,000
Fentanyl	Pain control	IV/IO – 50 mcg initial May repeat to max of 200 mcg or IM – 50 mcg initial May repeat after 10 min. to max of 100 mcg or IN – 50 mcg (½ each nare) Do not repeat	Contraindicated in SBP < 90mmHg, child birth or active labor, sudden onset of severe headache, AMS, suspected closed head injury.  Can cause hypotension or respiratory depression.	Dosing shall occur via a singular route; do not change routes after initial dose.  Recheck vital signs between each dose.  Hypotension is more common in patients with low cardiac output or volume depletion.  Respiratory depression is reversible with naloxone.
Glucagon	Hypoglycemia  Symptomatic Beta Blocker overdose	IM – 1 mg May repeat x 1 after 10 min. IV/IO/IM – 1-3 mg Do not repeat	None	Effect may be delayed 15- 20 minutes
Glucose paste	Hypoglycemia	24 g PO	Not indicated with AMS or if patient cannot swallow	None
Glucola	Hypoglycemia	50 g PO	Not indicated with AMS or if patient cannot swallow	None
Lidocaine	Persistent V-Fib	1-1.5 mg/kg IV/IO May repeat 0.5 mg/kg to a maximum of 3 mg/kg	Use caution with bradycardia.  Can cause cardiac	None
	IO anesthetic	40 mg IO	dysrhythmia	
Midazolam	Seizure	IM – 10 mg May repeat x1 after 5 min. or IN – 10 mg (½ each nare) May repeat x1 after 5 min. or IV if established – 5 mg May repeat x1 after 5 min.	Use caution in patients over 60 years of age.	Monitor respiratory status after administration.



Drug	Indication	Dosing	Cautions	Comments
Midazolam	Agitated delirium	5 mg IM/IN May repeat x1 after 5 min.	Use caution in patients over 60 years of age.	Monitor respiratory status after administration.
	Sedation for pacing or cardioversion	2.5 mg IV/IO May repeat to a max of 5 mg		
	Sedation of patient with an advanced airway	2.5 mg IV/IO May repeat to a max of 5 mg		
	Dizziness/vertigo	2.5 mg IV/IN	Do not administer if patient is > 50 for dizziness/vertigo	
Naloxone	Respiratory depression or apnea associated with suspected opioid overdose	IN – 2 mg ½ dose each nare or IM/IV – 1-2 mg	Abrupt withdrawal symptoms and combative behavior may occur.	IN administration preferred unless patient is in shock or has copious secretions/blood in nares. Shorter duration of action than that of narcotics. Titrate to effect of normal respirations; it is not necessary to fully wake the patient.
Naloxone autoinjector/preload	Overdose	1 preload syringe	See Naloxone	See Naloxone
	Chest pain	0.4 mg SL May repeat as needed every 5 min.	Can cause hypotension and headache. Do not administer if systolic BP < 110mmHg or heart rate < 50.  Do not administer if patient has taken Viagra, Levitra, Staxyn, or Stendra within past 24 hours or Cialis if taken within 36 past hours.	None
Nitroglycerin	Pulmonary edema	0.4 mg SL if systolic BP > 110mmHg 0.8 mg SL if systolic BP > 150mmHg May repeat appropriate dose every 5 min.		
Ondansetron	Vomiting or severe nausea  Nausea in > 20	4 mg IV/IO/IM/ODT  May repeat after 15  min. to a maximum of	Administer IV/IO dose over 1 minute as rapid administration may cause	For patients with nausea who are < 20 weeks pregnant, consider
	weeks pregnant	12 mg	syncope.	Diphenhydramine



San Mateo County Emergency Medical Services

# Adult Drug Reference

Drug	Indication	Dosing	Cautions	Comments
Sodium Bicarbonate	Tricyclic antidepressant overdose	1 mEq/kg IV/IO	Can precipitate with or inactivate other drugs.	Use only if life-threatening or in the presence of hemodynamically significant dysrhythmias.
	Crush injury			
	Hyperkalemia			
	Cardiac arrest with known renal failure			
Valium	Hazmat/WMD exposure	Refer to dosing guide attached to ChemPak kit	None	None

**EMT Optional Scope** 

