

**REGION I EMERGENCY MEDICAL SERVICES
STANDING MEDICAL ORDERS
EMT – Basic**

SMO: Drug Chart

DRUG NAME	DOSAGES	ACTION	INDICATIONS	CONTRAINDICATIONS	SIDE EFFECTS
albuterol (Proventil) (2) <ul style="list-style-type: none"> 3 ml unit dose <i>off line</i> 	2.5 mg via hand held nebulizer with oxygen set at 8 Liters.	Bronchodilation.	Acute asthma, COPD, anaphylaxis, croup with wheezing.	Tachyarrhythmias, severe cardiac disease.	Bronchospasm, respiratory depression, increased B/P, tachycardia.
aspirin, baby (1 bottle) <ul style="list-style-type: none"> Unit dose = 81 mg <i>off line</i> 	Give 4 (81 mg) chewable tabs (325mg)	Decreased platelet aggregation. Reduces clot formation.	Chest pain suggestive of AMI.	Recent history of peptic ulcer disease. Started on H ₂ antagonist in the last 6 months. Takes coumadin. Hypersensitivity to ASA & NSAIDS.	GI bleed; GI distress; anaphylaxis
Glucagon (1) (syringe with diluent and powder) <ul style="list-style-type: none"> 1ml diluent / 1 vial of powder <i>off line</i> 	Dissolve in accompanying solvent. <ul style="list-style-type: none"> Give 1 mg IM or Sub Q. Adult use only for B's. 	Increases blood glucose by converting glycogen to glucose.	Hypoglycemic states without IV started, Inderal OD.	Hypersensitivity to drug.	Hypersensitivity to protein, resp. distress, hypotension.
oral glucose (Glucose Paste) (1) <ul style="list-style-type: none"> <i>off line</i> 	Paste to buccal lining of mouth.	Increases blood sugar by buccal absorption of sugar.	Hypoglycemic states; conscious patient.	Hypersensitivity of drug; unconscious patient.	Chills, flushing

DRUG NAME	DOSAGES	ACTION	INDICATIONS	CONTRAINDICATIONS	SIDE EFFECTS
<p>epinephrine (Adrenalin) (1ea)</p> <p>Auto-Injector syringe</p> <ul style="list-style-type: none"> Epi-pen (Adult dose) Epi-pen Jr. (Peds dose) <i>off line</i> 	<p>Intramuscular injection:</p> <p>Only inject IM into the anterolateral aspect of the thigh:</p> <ul style="list-style-type: none"> Epi-pen (Adult) delivers 0.3mg epinephrine. Epi-pen Jr. (Peds) delivers 0.15mg epinephrine. 	Bronchodilator- adrenergic.	Anaphylaxis, allergic reactions after insect stings or bites, foods, drugs, and other allergens.	Hypersensitivity to drug; narrow –angle glaucoma.	Tremors, anxiety, dyspnea, tachyarrhythmias, anorexia, N/V.
<p>nitroglycerin tabs – patient assist only</p> <ul style="list-style-type: none"> 1/150 grain = 0.4 mg tablet <i>off line</i> 	0.4 mg sublingual tab	Vasodilates coronary arteries, relaxes smooth muscle. Decreases preload and afterload.	Cardiac chest pain, pulmonary edema, CHF.	Hypotension. If possible, have IV in place before administering.	Headache, hypotension

**REGION I EMERGENCY MEDICAL SERVICES
STANDING MEDICAL ORDERS
EMT – Paramedic**

SMO: Drug Chart**

DRUG NAME	DOSAGES	ACTION	INDICATIONS	CONTRAINDICATIONS	SIDE EFFECTS
adenosine (Adenocard) (5) Prefilled syringe <ul style="list-style-type: none"> • 6 mg / 2 ml • <i>off line</i> 	6 mg RAPID IVP (antecubital vein) over 2 sec. with 10 ml IV flush. No response → 12 mg w/flush.	Transient electrical conduction at AV node.	SVT w/(HR>150) Use after vagal maneuvers. May be used while preparing for cardioversion.	2nd and 3rd degree blocks or sick sinus syndrome.	Flushing, dizziness, cardiac arrhythmias, bradycardia, chest pain and asystole.
	Peds dose: 0.1mg/kg administered as above. No response → 0.2 mg/kg Max single dose, 12 mg.				
albuterol (Proventil) (2) <ul style="list-style-type: none"> • 3 ml unit dose • <i>off line</i> 	2.5 mg via hand held nebulizer with oxygen set at 8 Liters.	Bronchodilation.	Acute Asthma, COPD, anaphylaxis, croup with wheezing.	Tachyarrhythmias, severe cardiac disease.	Bronchospasm, respiratory depression, increased B/P, tachycardia.

DRUG NAME	DOSAGES	ACTION	INDICATION	CONTRAINDICATION	SIDE EFFECT
aspirin, baby (1 bottle) <ul style="list-style-type: none"> Unit dose = 81 mg <i>off line</i> 	Give 4 (81 mg) chewable tabs (324 mg)	Decreased platelet aggregation. Reduces clot formation.	Chest pain suggestive of AMI.	Recent history of peptic ulcer disease. Started on H ₂ antagonist in the last 6 months. Takes Coumadin. Hypersensitivity to ASA & NSAIDS.	GI bleed; GI distress; anaphylaxis
atropine sulfate (3) Abboject syringe <ul style="list-style-type: none"> 1 mg / 10 ml <i>off line</i> 	0.5 - 1.0 mg IVP rapidly up to total dose of 3 mg. May give thru ETT @ 1.5-2.0 times the parenteral dose.	Parasympatholytic, indirect cardiac accelerator, positive chronotrope.	Symptomatic bradycardia, AV blocks, asystole; organophosphate poisoning: dose—2mg IVP rapidly. Repeat dose every 2-5 minutes until signs of atropinization appear (dry mouth, dried secretions). Usual 0.04 mg/kg dosage limit does not apply. Contact medical control.	None in emergency situation.	Dilated pupils, dry mouth, headache, tachycardia.
	Peds dose: 0.02 mg/ kg <i>Minimum</i> single dose— 0.1mg for child <i>Maximum</i> single dose—0.5 mg for child 1.0 mg for adolescent. May be repeated X1				

DRUG NAME	DOSAGES	ACTION	INDICATION	CONTRAINDICATION	SIDE EFFECT
50% Dextrose (2) Abboject syringe <ul style="list-style-type: none"> • 25 gms / 50 ml • <i>off line</i> See below for Peds concentration	50 cc IVP may repeat once. See below for Peds dose	Elevates blood glucose levels rapidly in the adult patient.	Hypoglycemia, unresponsive with documented BS < 60	CVA unless documented BS < 60.	Venous irritation, subcutaneous infiltration causes tissue necrosis.
25% Dextrose <ul style="list-style-type: none"> • Dilute 50% Dextrose 1:1 with NS • Dilute this 25% solution 1:1 with NS to make a 12.5% solution. • <i>off line</i> 	<ul style="list-style-type: none"> • If patient is infant < one month of age and > 3 kg give 2cc/kg of D12.5% slow IVP. • If patient is >3 kg and > 1 month of age, give 2cc/kg of Dextrose 25% slow IVP. 	Elevates blood glucose levels rapidly in the pediatric patient.	Hypoglycemia, unresponsive with documented BS < 60		Venous irritation, subcutaneous infiltration causes tissue necrosis.
diazepam (Valium) (2) <ul style="list-style-type: none"> • 10 mg/ 2 ml (5mg/ ml) • <i>off line for seizures/ on line for sedation</i> 	5 mg initial dose. Consult with Medical Control for subsequent doses to 10 mg. Peds dose: 0.1 mg/ kg (1mg/min over 3 min)	Enhances pre-sympathetic inhibition	Seizure activity Moderate sedation for intubation	Hypersensitivity to benzodiazepines, narrow angle glaucoma, psychosis, pregnancy, lactation, coma, respiratory depression	Respiratory depression, ECG changes, tachycardia, blurred vision

DRUG NAME	DOSAGES	ACTION	INDICATION	CONTRAINDICATION	SIDE EFFECT
diphenhydramine (Benadryl) (2) Prefilled syringe <ul style="list-style-type: none"> • 50 mg / 1.0 ml • <i>off line</i> 	25 – 50 mg IVP over 3 minutes slowly or 25 – 50 mg IM.	Antihistaminic, some sedative effects, antiemetic. Blocks histamine receptors.	Anaphylaxis, allergic reactions, urticaria; extrapyramidal side effects.	Asthma, presence of alcohol, and/or drugs, nursing mother.	Hypotension, dries bronchial secretions, OD leads to convulsions, coma.
epinephrine (Adrenalin) (2) 1: 1,000 solution ampule <ul style="list-style-type: none"> • 1 mg / 1 ml • <i>off line for Code/ on line for non Code</i> 	0.1 to 0.3 mg SQ.	Bronchodilation	Asthma, allergic reaction. Contact Medical Control before administering to patients > 40 years.	Hypertension, CAD, tachycardia, tachyarrhythmias and pregnancy; use with cautions in patients over 40 years old and with those with CAD.	Tachyarrhythmias, headache, dizziness, tremors, palpitation, anxiety, pallor, restlessness, chest pain.

DRUG NAME	DOSAGES	ACTION	INDICATION	CONTRAINDICATION	SIDE EFFECT
epinephrine (Adrenalin) (6) 1: 10,000 solution Abboject syringe <ul style="list-style-type: none"> • 1 mg / 10 ml • <i>off line for Code/ on line for non Code</i> 	1:10,000 solution 0.5 – 1 mg IVP or 1.0 - 2.0 mg ETT. May repeat every 5 minutes. Peds dose: First dose: <ul style="list-style-type: none"> • IV/IO: 0.01 mg/kg (1:10,000) give 0.1 mg/kg • ET: 0.1 mg/kg (1:1,000) give 0.1 mg/kg Subsequent doses: <ul style="list-style-type: none"> • IV/IO/ET: 1mg/ml (1:1,000) give 0.1 mg/kg 	Bronchodilation, ↑ blood flow to brain and heart with CPR, vasoconstriction.	Pulseless V-tach, V-fib, PEA, asystole, anaphylaxis.	None.	Tachyarrhythmias, headache, dizziness, tremors, palpitation, anxiety, pallor, restlessness, chest pain.
furosemide (Lasix) (1) Prefilled syringe <ul style="list-style-type: none"> • 100 mg / 10 ml • <i>off line</i> 	40 – 80 mg IVP.	Vasodilation, promotes prompt diuresis, Pulls fluid from cells.	CHF, Pulmonary edema, hypertensive crisis.	Pregnancy, dehydration, B/P < 90 systolic, allergy to sulfonamides.	Hypokalemia, dehydration, hypotension.

DRUG NAME	DOSAGES	ACTION	INDICATION	CONTRAINDICATION	SIDE EFFECT
Glucagon (1) (syringe with diluent and powder) <ul style="list-style-type: none"> 1ml diluent / 1 vial of powder <i>off line</i> 	Dissolve in accompanying solvent. <ul style="list-style-type: none"> Give 1 mg IM or Sub Q. Peds dose: <ul style="list-style-type: none"> If patient is between 3kg-10kg and IV not established, give Glucagon 0.1 mg/kg IM If patient is > 10 kg and IV not established, give Glucagon 1.0 mg IM 	Increases blood glucose by converting glycogen to glucose.	Hypoglycemic states without IV started, Inderal OD.	Hypersensitivity to drug.	Hypersensitivity to protein, resp. distress, hypotension.
oral glucose (Glucose Paste) (1) <ul style="list-style-type: none"> <i>off line</i> 	Paste to buccal lining of mouth.	Increases blood sugar by buccal absorption of sugar.	Hypoglycemic states; conscious patient.	Hypersensitivity of drug; unconscious patient.	Chills, flushing
lidocaine jelly (1) <ul style="list-style-type: none"> 30 gram tube <i>off line</i> 	Generous amount 5 - 15 ml	Produces anesthesia of nasal passage	Blind nasotracheal intubation, nasal airway	Hypersensitivity	Irritation at site.

DRUG NAME	DOSAGES	ACTION	INDICATION	CONTRAINDICATION	SIDE EFFECT
lidocaine (2) Abboject syringe <ul style="list-style-type: none"> • 100 mg / 10 ml • <i>off line for Code/ on line for non Code</i> 	1.0 - 1.5 mg /kg up to 3 mg / kg.	Antiarrhythmic, suppresses ventricular ectopic activity. Increases V-fib threshold.	Malignant PVC's, V-fib, V-tachycardia.	Allergy to -caines & amines. PVC's with bradycardia, AV or intraventricular blocks, Pulse < 60.	Hypotension, nausea, vomiting, widening QRS, cardiovascular collapse, seizures, coma.
midazolom (Versed) (2) Prefilled syringe <ul style="list-style-type: none"> • 10 mg / 2 ml (5 mg / 1 ml) • <i>off line for initial 2 mg dose given slowly; may repeat dose for maximum of 10 mg.</i> 	2 mg initial dose given slowly (over 1 – 2 minutes). Consult Medical Control for subsequent doses over 10 mg. <hr/> Peds dose: 0.1mg/kg may go up to total dose of 0.2 mg/kg	Sedative, anti-convulsant, skeletal muscle relaxant.	Seizures, assisted intubation, combative patients, anxiolytic.	Pregnancy unless toxemic, Hypersensitivity	Respiratory depression
morphine sulfate (MSO₄) (2) Prefilled syringe <ul style="list-style-type: none"> • 10 mg per 1 ml • <i>off line for initial 2 mg dose; may give every 5 minutes to max of 10 mg if BP ≥ 100 and resp ≥ 12</i> 	2 mg initial dose. Consult Medical Control for subsequent doses over 10 mg.	Narcotic! Decreases respiratory effort, decreases pain perception. Vasodilator. Decrease anxiety.	Severe pain, pulmonary edema.	Head injury, undiagnosed abdominal pain, shock, volume depletion, hypoventilation states. Hypersensitivity to drug.	Respiratory arrest, or respiratory depression. Have Narcan available. Nausea, hypotension.

DRUG NAME	DOSAGES	ACTION	INDICATION	CONTRAINDICATION	SIDE EFFECT
naloxone (Narcan) (2) Prefilled syringe <ul style="list-style-type: none"> • 2 mg / 2 ml • <i>off line</i> 	2 mg bolus IVP or ETT. May repeat 2 mg in 2 min. if no response up to 10 mg total dose. Peds dose: for patients less than or equal to 20 kg, give 0.1mg/kg IV/IO/SQ/IM or 0.2 mg/kg ETT.	Reverses the effects of narcotics.	OD of natural or synthetic narcotics and opiates. Unconscious patient with known etiology with respiratory compromise.	Hypersensitivity to drug.	Dizziness, hypotension, hypertension, ventricular arrhythmias, fulminating pulmonary edema.
nitroglycerin tabs (2 bottles) <ul style="list-style-type: none"> • 1/150 grain = 0.4 mg tablet • <i>off line</i> 	0.4 mg sublingual tab	Vasodilates coronary arteries, relaxes smooth muscle. Decreases preload and afterload.	Cardiac chest pain, pulmonary edema, CHF.	Hypotension. . If possible, have IV in place before administering.	Headache, hypotension
nitrous oxide gas (1) Kishwaukee Community EMS System only <ul style="list-style-type: none"> • <i>off line</i> 	50% Nitrous with 50% O ₂ . Pt self administers.	CNS depressant, short duration.	Musculo-skeletal injuries, burns, kidney stones.	Respiratory disease, abdominal wall injuries, nausea, intoxication.	Lightheadedness, nausea, slurred, speech, drowsiness.

DRUG NAME	DOSAGES	ACTION	INDICATION	CONTRAINDICATION	SIDE EFFECT
Ondansetron(Zofran)	Adults- 4.0mg slow IV over 2 minutes or IM Pediatrics >40kg same as adult Pediatrics<40kg 0.1mg/kg slow IV over 2 minutes or IM	Prevents nausea, vomiting by blocking serotonin peripherally, central, and in the small intestine	Nausea, Vomiting, Motion Sickness	<ul style="list-style-type: none"> Hypersensitivity to Ondansetron(Zofran) 	Drowsiness, dizziness, hypotension, flushing, musculoskeletal pain, cardiovascular disturbances, headache, and redness at the injection site
sodium bicarbonate (1) Abboject syringe <ul style="list-style-type: none"> 8.4% / 50 mEq / 50 ml <i>off line for Code/ on line for non Code</i> 	1 mEq/kg IVP	Buffers arterial acids, increases Ph.	Late in treatment. of V-fib, asystole, PEA, w/ MD. order, Tricyclic OD.	Alkalotic states.	Alkalosis
Tetracaine (2) <ul style="list-style-type: none"> 2 ml unit dose <i>off line</i> 	1-2 gtts in eye to be irrigated	Ophthalmic anesthetic	To irrigate eyes in the MICU.	Hypersensitivity.	None in emergency care.

*** For Pediatric Doses, refer to Broselow Tape, individual protocols, or Medical Control.