SOUTH PLAINS EMERGENCY MEDICAL SERVICE

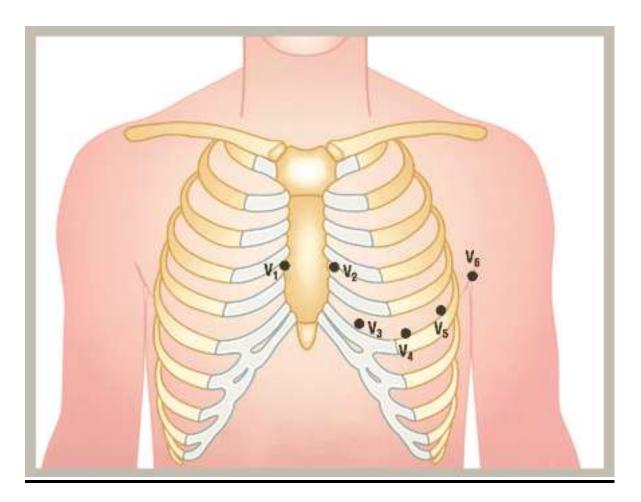
PROTOCOL SUPPLEMENT 2025

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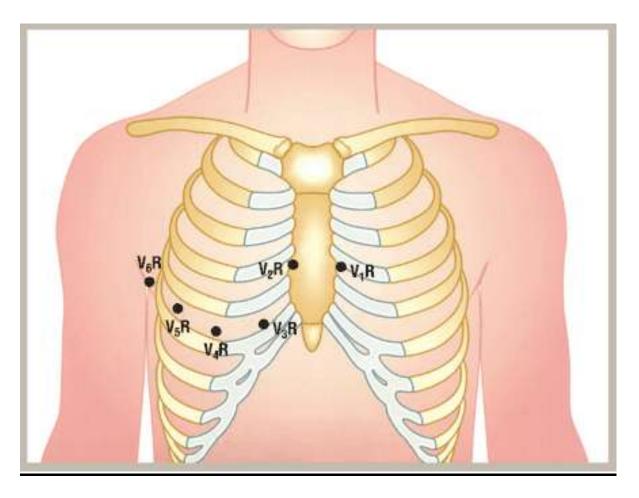
LEFT SIDED V-LEAD PLACEMENT



- V₁: Right 4th intercostal space
- V₂: Left 4th intercostal space
- V₃: Halfway between V₂ and V₄
- V₄: Left 5th intercostal space, mid-clavicular line
- V₅: Horizontal to V₄, anterior axillary line
- V₆: Horizontal to V₅, mid-axillary line

In an emergent situation and time does not permit a complete right sided EKG, move V_4 to the V_4R position to confirm a right ventricular infarct.

RIGHT SIDED V-LEAD PLACEMENT



- V₁R: Left 4th intercostal space
- V₂R: Right 4th intercostal space
- V₃R: Halfway between V₂ and V₄
- V₄R: Right 5th intercostal space, mid-clavicular line
- V₅R: Horizontal to V₄, anterior axillary line
- V₆R: Horizontal to V₅, mid-axillary line

In an emergent situation and time does not permit a complete right sided EKG, move V_4 to the V_4R position to confirm a right ventricular infarct.

ACETAMINOPHEN

(Tylenol, APAP)

INDICATIONS	Used for the management of fever of 100.4° F. or greater
ADMINISTRATION	Orally
DOSAGE	
ADULT	10mg/kg up to 1,000mg. Given in 500mg tablets so medication dosage will be rounded to nearest 500mg increment
PEDIATRIC	Not used for pediatrics. Liquid Children's Motrin is used for pediatrics
THERAPEUTIC EFFECTS	As an antipyretic, Acetaminophen is used to manage fever and to treat/prevent sepsis
CONTRAINDICATIONS	 Allergy History of liver disease Has taken Acetaminophen within the last 90 minutes
SIDE EFFECTS	Skin Reactions (rare)
SPECIAL NOTES/RESTRICTIONS	Acute overdose may lead to liver damage/failure

IV ACETAMINOPHEN

(Tylenol, Ofirmev)

INDICATIONS	Used for the management of moderate to severe traumatic injury pain at the AEMT and Paramedic level ONLY if transport time is > 10 minutes AND for the management of fever, at the AEMT and Paramedic level, for febrile patients (>100.4° F.) with altered LOC and are unable to swallow ONLY if transport time is > 10 minutes
ADMINISTRATION	IV Infusion
DOSAGE	
ADULT	 1,000mg over 15 minutes via IV infusion. Concentration should be 1,000mg in 100cc of D5W or NS and given over 15 minutes 6.67ml/minute or 67 drops per minute using a 10 drop IV set NO repeat dose
PEDIATRIC	 <1 month old: 12.5mg/kg over 15 minutes via IV infusion >1month old: 15mg/kg, to a max of 1,000mg, over 15 minutes via IV infusion Concentration should be 1,000mg in 100cc of D5W or NS and given over 15 minutes NO repeat dose
THERAPEUTIC EFFECTS	As a non-opioid analgesic, IV Acetaminophen is used to manage pain resulting from traumatic injuries when the transport time is > 20 minutes
CONTRAINDICATIONS	Allergy Uistomy of liver disease
SIDE EFFECTS	History of liver disease N/V, Headache, skin reactions (rare)
SPECIAL NOTES/RESTRICTIONS	 Used ONLY as indicated above. Any/all other uses only with on-line medical direction Paramedics may use IV Acetaminophen in conjunction with Fentanyl or Morphine as needed with 10 minutes between doses Acute overdose may lead to liver damage/failure All doses of IV Acetaminophen must be reviewed by medical director or designee (peer reviewer)

ACTIVATED CHARCOAL

	Used to treat certain types of poisonings
INDICATIONS	and overdoses
ADMINISTRATION	PO
DOSAGE	
ADULT	1g/kg up to a max of 50g
PEDIATRIC	1g/kg up to a max of 50g
THERAPEUTIC EFFECTS	Binds and absorbs various chemicals and poisonous compounds, thereby reducing their absorption into the body
CONTRAINDICATIONS	 Caustic/Corrosive substances Cyanide poisonings Semi-conscious or unconscious patients
SIDE EFFECTS	Abdominal cramping, constipation, dark stools, and nausea and vomiting
SPECIAL NOTES/RESTRICTIONS	 Online medical control orders required Does not absorb all drugs or toxic substances (i.e. Cyanide, Lithium, Iron, Lead, Arsenic, etc) Has no effect in methanol or organophosphate poisonings Has little therapeutic value in caustic alkalis and acid poisonings Should not be given with ice cream, milk, sherbet or syrup of Ipecac

ADENOSINE

(Adenocard)

(Aueli	ocard)
INDICATIONS	 Paroxysmal Supraventricular Tachycardia Supraventricular Tachycardia
ADMINISTRATION	Supraventricular Tachycardia Rapid IV or IO push with immediate 10cc NS flush
DOSAGE	
ADULT	Initial dose is 12mg rapid IV or IO push followed by 20cc rapid fluid bolus. May repeat once at 12mg rapid IV or IO push
PEDIATRIC	0.1mg/kg rapid IV or IO push to a max of 12mg followed by 5-20cc rapid fluid bolus.
THERAPEUTIC EFFECTS	 Slows conduction time through AV node Interrupts reentry pathways through AV node Restores Sinus Rhythm in patients with SVT
CONTRAINDICATIONS	 Hypersensitivity 2nd or 3rd degree AV blocks Sinus node dysfunction, such as sick sinus syndrome or symptomatic bradycardia Atrial Flutter/Atrial Fibrillation Ventricular Tachycardia Wolff-Parkinson White (WPW) Syndrome
SIDE EFFECTS	 Transient AV block, Asystole and other Dysrhythmias Chest pressure Dizziness Flushing Nausea/Vomiting Shortness of Breath
SPECIAL NOTES/RESTRICTIONS	 Onset is generally within less than one minute Adverse effects are usually short lived and easily tolerated Effects may be more pronounced in patients on Dipyridamole Effects may be attenuated in patients on Theophylline preparations

AMIODARONE

(Cordarone)

ADULTor IO• Stable V-Tach minutes, may to a max of 45• SVT-150mg I minutes. May needed.• Pulseless VF/ max of 300mg once in 3-5 mi max of 150mg• V-Tach with a	auon, venuncular
ADMINISTRATIONIV/IO PushDOSAGE• Pulseless VF/ IOADULT• Pulseless VF/ or IOADULT• Stable V-Tach minutes, may to a max of 45SVT-150mg I minutes. May needed.PEDIATRIC• V-Tach with a	
DOSAGE• Pulseless VF// IOADULT• Pulseless VF// or IOADULT• Stable V-Tach minutes, may to a max of 45• SVT-150mg I minutes. May needed.• Pulseless VF// max of 300mg once in 3-5 mi max of 150mg• V-Tach with a	
 Pulseless VF//IO Pulseless VF//Or IO Stable V-Tachminutes, may to a max of 45 SVT-150mg I minutes. May needed. Pulseless VF//max of 300mg once in 3-5 mi max of 150mg V-Tach with a 	
ADULTIOADULTPulseless VF/ or IO• Stable V-Tach minutes, may to a max of 45• SVT-150mg I minutes. May needed.• Pulseless VF/ max of 300mg once in 3-5 mi max of 150mg• V-Tach with a	UT Initial 200ma IVD on
needed. • Pulseless VF// max of 300mg once in 3-5 mi max of 150mg • PEDIATRIC	VT- Repeat 150mg IVP -150mg over 10 repeat every 10 minutes
150mg	VT Initial-5mg/kg to a g IV or IO May repeat nutes at 2.5mg/kg to a pulse-5mg/kg, IVP or nutes to a max of IV or IO over 20
THERAPEUTIC EFFECTS refractory peri	icular dysrhythmias and
• Cardiogenic sl• Hypersensitive• 2nd or 3rd degree• Severe Sinus le• Severe sinus ne	nock ty to drug ee AV block
SIDE EFFECTS• HypotensionSIDE EFFECTS• Bradycardia• Asystole• PEA	
blockers, beta	alcium channel blockers and other as may cause additive

ASPIRIN

INDICATIONS	Myocardial Infarction, Chest Pain	
ADMINISTRATION	Chewed PO	
DOSAGE		
ADULT	1 Adult ASA 325mg	
PEDIATRIC	Not Indicated	
THERAPEUTIC EFFECTS	 Inhibits platelet aggregation by blocking formation of Thromboxane A2 Reduces overall mortality of Acute MI Reduces non-fatal re-infarction 	
CONTRAINDICATIONS	 Hypersensitivity to Aspirin Active bleeding condition or ulcer Pregnancy Patients with a VAD device 	
SIDE EFFECTS	HeartburnIndigestionNausea	
SPECIAL NOTES/RESTRICTIONS	Patients on Coumadin (Warfarin) MAY take Aspirin in the acute setting	

ATROPINE

	Symptomatic Bradycardia,
INDICATIONS	Organophosphate Poisoning and prior to
ADMINISTRATION	RSI in patients < 16 y/o
DOSAGE	IV, IO, ETT
ADULT	 Symptomatic Bradycardia: 1mg IV/IO push every 3-5minutes to a max of 3mg. Organophosphate Poisoning: 2mg IV/IO push every 5 minutes until lungs clear or BP >90 systolic and pulse > 60.
PEDIATRIC	 Symptomatic Bradycardia: 0.02mg/kg IV/IO push, minimum dose 0.1mg, maximum single dose 1mg may repeat in 3-5 minutes. Total maximum dose for children 0-8 years old is 1mg. Total maximum dose for children 9-15 years old is 2mg. Organophosphate Poisoning: 0.05mg/kg IV/IO push to a max of 2mg per dose every 10-15 minutes, or until lungs clear or BP >90 systolic and pulse >60. (Minimum dose if 0.1mg) PAI: 0.02mg/kg IV/IO push to a max of 1.0mg to all patients <16 years old
THERAPRUTIC EFFECTS	 Blocks acetylcholine receptor sites Decreases vagal tone Increases SA and AV nodal conduction Dries Secretions
CONTRAINDICATIONS	AllergyTachycardia
SIDE EFFECTS	 Blurred Vision Dry Mouth Headache Pupillary dilation Tachycardia
SPECIAL NOTES/RESTRICTIONS	Organophosphate may require larger doses

BENADRYL

(Diphenhydramine)

(Diphenhydramine)		
INDICATIONS	Allergic Reaction	
ADMINISTRATION	IV, IO, Oral	
DOSAGE		
ADULT	 50mg IV/IO and PO For PO Administration, Patient must be conscious and able to follow commands 	
PEDIATRIC	 IV/IO: 1.0mg/kg to a max of 50mg PO Liquid Children's Benadryl 1.0mg/kg to a max of 50mg. For PO administration, pediatric patients must have GCS of 15 	
THERAPEUTIC EFFECTS	 Inhibits histamine release and effects Anticholinergic effects antagonize extra pyramidal symptoms 	
CONTRAINDICATIONS	 Acute asthma exacerbation Acute Glaucoma Pregnancy Sensitivity to drug 	
SIDE EFFECTS	 Blurred vision Headache Palpitations Sedation 	
SPECIAL NOTES/RESTRICTIONS	 Benadryl IV is the preferred administration route. Benadryl PO may be given for minor reactions by EMTs or by ALS personnel if unable to establish an IV. IF Benadryl PO is given, the highest certified crewmember must maintain control of patient care and document the call on the PCR Contact Medical Control if patient is suspected to be having a dystonic reaction 	

CALCIUM GLUCONATE 10%

INDICATIONS	Magnesium toxicity
ADMINISTRATION	Slow IV/IO push
DOSAGE	
ADULT	1 gram SLOW IV/IO Push
PEDIATRIC	Not used for Pediatrics
THERAPEUTIC EFFECTS	Antidote for Magnesium Sulfate toxicity
CONTRAINDICATIONS	Hypersensitivity
SIDE EFFECTS	 Nausea, constipations, GI irritation Rapid IV may cause vasodilation, cardiac arrhythmias, hypotension, bradycardia Infiltrated IV site may cause local necrosis and abscess formation
SPECIAL NOTES/RESTRICTIONS	 Assure IV patency prior to administration Give SLOWLY

DECADRON

(Dexamethasone)

(D thuing	culasolic)
INDICATIONS	 Severe respiratory distress with wheezing Allergic reactions that are accompanied with respiratory distress Bee Stings
ADMINISTRATION	IV, IO
DOSAGE	
ADULT	20mg Slow IV/IO Push
PEDIATRIC	 0.6mg/kg to a max of 20mg SIVP Not indicated if < 2YOA
THERAPEUTIC EFFECTS	Anti-inflammatory agentMay prevent the release of histamine
CONTRAINDICATIONS	 Psychosis Hypersensitivity to the drug Fungal infections Non-Asthmatic bronchial disease CHILD < 2 years of age AIDS TB
SIDE EFFECTS	 Tachycardia Bradycardia Hypertension Increase sweating Seizures Headache
SPECIAL NOTES/RESTRICTIONS	 To be used in conjunction with bronchodilators Use caution in women who are pregnant

DEXTROSE 10% (25G/250cc)

INDICATIONS	Hypoglycemia
ADMINISTRATION	IV/IO Infusion
DOSAGE	
ADULT	Utilizing a 10 drop set (A-set), give wide open bolus, until patient becomes responsive. Once responsive, obtain BGL. If BGL \geq 90mg/dL, slow infusion to a TKO rate and monitor to maintain desired effect. May repeat X 1 if no improvement in LOC AND BGL remains < 70mg/dL
PEDIATRIC	Utilizing a 60 drop set (mini set), give wide open bolus, until patient becomes responsive. Once responsive, obtain BGL. If BGL \geq 90mg/dL, slow infusion to a TKO rate and monitor to maintain desired effect. May repeat X 1 if no improvement in LOC AND BGL remains < 70mg/dL
THERAPEUTIC EFFECTS	Immediate source of glucose
CONTRAINDICATIONS CVA with normal serum glucose	
SIDE EFFECTS	Local irritation
SPECIAL NOTES/RESTRICTIONS	 Dosage is dependent on effect. Once patient regains an acceptable level of consciousness and BGL ≥ 90mg/dL, the D10W infusion should be slowed to TKO As D10W is a hypertonic solution, monitor lung sounds closely Until current stocks of D50W (25G/50cc) are exhausted or expired, D10W can be achieved by utilizing a 250cc bag of NS and pre-filled D50W. 50cc should be withdrawn from the bag and the 50cc of D50W injected into the bag. This concentration must be well mixed (shaken) and D10W is achieved.

DOPAMINE

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(Incopin)		
INDICATIONS	Cardiogenic shock, Refractory	
	Hypotension	
ADMINISTRATION	IV or IO infusion	
DOSAGE		
ADULT	 5mcg/kg/min, IV or IO, increased by 5mcg/kg/min every 2 minutes until: Max of 20mcg/kg/min given or Systolic BP 90-110mmHg 	
PEDIATRIC	 5mcg/kg/min, IV or IO If perfusion not adequate after 2 minutes, increase to a max of 10mcg/kg/min 	
THERAPEUTIC EFFECTS	 Stimulates alpha, beta, and dopamine receptors, depending on dose Increases cardiac output and systemic arterial pressure Dilates vessels to the brain, heart and kidneys Increases heart rate 	
CONTRAINDICATIONS	 Uncorrected hypovolemic shock Uncorrected tachydysrhythmias Allergy Patients with a VAD device unless in cardiac arrest 	
SIDE EFFECTS	 Angina Ectopy Headache Tachydysrhythmias 	
SPECIAL NOTES/RESTRICTIONS	 Titrate to blood pressure Hypovolemia should be corrected with volume expansion fluids prior to the administration of Dopamine. 	

DUO-NEB

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INDICATIONS	Acute Bronchospasm, Respiratory
	distress, Allergic reaction, CHF, Asthma,
	COPD
ADMINISTRATION	Hand held Nebulizer, Nebulizer Mask,
	Inline ETT Nebulizer
DOSAGE	
ADULT	Mixture of 3mg of Albuterol with 0.5mg
ADOLI	of Ipratropium Bromide in 3cc
PEDIATRIC	Mixture of 3mg of Albuterol with 0.5mg
FEDIATRIC	of Ipratropium Bromide in 3cc
	• Decreased bronchospasm via beta
THERAPEUTIC EFFECTS	receptors
	Improves pulmonary function
	• Hypersensitivity to any of the contents
CONTRAINDICATIONS	of the solution (including Atropine)
	Tachydysrhythmias
	Cough
	Dizziness or Nervousness
SIDE EFFECTS	• Nausea
	Tachycardia
	• Tremor
	• May be nebulized via ETT in
	intubated asthmatics or COPD
SPECIAL NOTES/RESTRICTIONS	patients
	 For patients with a VAD device, limit
	to one dose

EPINEPHRINE 1:1,000

INDICATIONS	Cardiac Arrest, Allergic reaction, and Pediatric Bradycardia
ADMINISTRATION	IM, ETT
DOSAGE	
ADULT	Allergic Reaction Unstable: 0.3mg IM (For ECA, EMT, and AEMT) ADMINISTER ONLY IF EVIDENCE OF SHOCK IS PRESENT)
PEDIATRIC	 Bradycardia (Paramedic only): 0.1mg/kg ETT (if IV/IO unobtainable) 1:1,000 solution to a max of 0.5cc per single dose repeat every 3-5 minutes at same dose Allergic Reaction (For ECA, EMT, and AEMT): 0.01mg/kg to a max of 0.15mg IM (ADMINISTER ONLY IF EVIDENCE OF SHOCK IS PRESENT)
THERAPEUTIC EFFECTS	 Stimulates alpha and beta adrenergic receptors Increases heart rate, systemic blood pressure and coronary blood flow
CONTRANDICATIONS	 Hypertension Tachycardia Patients with VAD device unless in cardiac arrest or severe allergic reaction
SIDE EFFECTS	 Hypertension Palpitations Tachycardia Tremors
SPECIAL NOTES/RESTRICTIONS	 Pay special attention to the concentration either 1:1,000 or 1:10,000 Epinephrine 1:1,000 is NEVER GIVEN IV

EPINEPHRINE 1:10,000

INDICATIONS	Cardiac Arrest, Allergic reaction, and
ADMINISTRATION	Pediatric Bradycardia IV/IO, ETT
DOSAGE	IV/IO, ETI
ADULT	 Cardiac arrest: 1mg IV or IO every 3- 5 minutes or 2mg via ETT every 3-5 minutes Allergic Reaction Stable: 0.2mg IV/IO Allergic Reaction Unstable: 0.5mg IV/IO
PEDIATRIC	 Cardiac Arrest: 0.01mg/kg IV/IO to a max of 1mg per single dose Bradycardia-: 0.01mg/kg IV/IO to a max of 5cc per single dose. Repeat every 3-5 minutes at same dose Allergic Reaction: 0.01mg/kg IV/IO to a max dose of 0.5mg (ADMINISTER ONLY IF EVIDENCE OF SHOCK IS PRESENT) Epinephrine 1:1,000: 0.01mg/kg to a max of 0.15mg IM
THERAPEUTIC EFFECTS	 Stimulates alpha and beta adrenergic receptors Increases heart rate, systemic blood pressure and coronary blood flow
CONTRANDICATIONS	 Hypertension Tachycardia Patients with VAD device unless in cardiac arrest or severe allergic reaction
SIDE EFFECTS	 Hypertension Palpitations Tachycardia Tremors
SPECIAL NOTES/RESTRICTIONS	• Pay special attention to the concentration either 1:1,000 or 1:10,000

EPINEPHRINE DRIP

INDICATIONS	Bradyarrhythmias resistant to Atropine
	and pacing therapy
ADMINISTRATION	IV/IO Infusion
IV DRIP PREPARATION	Inject 1mg of 1:1,000 Epi in a 100cc or 250cc bag of NS
DOSAGE	
ADULT	 2-10mcg/min IV/IO drip Mixed in 100cc bag: 1mcg = 6gtt/min 2mcg = 12gtt/min 10mcg = 60gtt/min Mixed in 250cc bag: 1mcg = 15gtt/min 2mcg = 30gtt/min 10mcg = 150gtt/min
PEDIATRIC	 2-10mcg/min IV/IO drip Mixed in 100cc bag: 1mcg = 6gtt/min 2mcg = 12gtt/min 10mcg = 60gtt/min Mixed in 250cc bag: 1mcg = 15gtt/min 2mcg = 30gtt/min 10mcg = 150gtt/min
THERAPEUTIC EFFECTS	 Stimulates alpha and beta adrenergic receptors Increases heart rate, systemic blood pressure and coronary blood flow
CONTRANDICATIONS	HypertensionTachycardiaPatients with VAD device
SIDE EFFECTS	 Hypertension Palpitations Tachycardia Tremors
SPECIAL NOTES/RESTRICTIONS	• Always mix with 1:1,000 concentration to mix the drip

ETOMIDATE

(Amidate)

INDICATIONS	To facilitate Pharmacological Assisted Intubation (PAI)
ADMINISTRATION	IV, IO
DOSAGE	
ADULT	0.3mg/kg IV or IO to a max of 40mg
PEDIATRIC	0.3mg/kg IV or IO to a max of 40mg
THERAPEUTIC EFFECTS	
CONTRAINDICATIONS	Hypersensitivity
SIDE EFFECTS	Pain at injection site
	Respiratory depression
SPECIAL NOTES/RESTRICTIONS	

FENTANYL

(Duragesic)

INDICATIONS	Pain Management
ADMINISTRATION	IV, IO, IN (Intranasal)
DOSAGE	
ADULT	 IV/IO Dose: 2.5 to 5mcg/kg for single dose max of 100 mcg, (2.5mcg/kg if >60 years of age) May repeat once at same dosage if needed in 3-5 minutes IN Dose: 2mcg/kg per single dose with max of 100mcg May repeat once at same dosage if needed in 3-5 minutes IN Dose: 2mcg/kg per single dose with max of 100mcg May repeat once at same dosage if needed in 3-5 minutes Cardiac Chest pain for hypotensive patients
PEDIATRIC	 (< 90mmHg SBP) 50mcg IV IV/IO Dose: 1 to 2mcg/kg given slowly to a max of 100 mcg per single dose May repeat once at same dosage if needed in 3-5 minutes IN Dose: 2mcg/kg to a max of 100mcg per single dose May repeat once at same dosage if needed in 3-5 minutes IN Dose: 2mcg/kg to a max of 100mcg per single dose May repeat once at same dosage if needed in 3-5 minutes Not indicated for children < 2 years of age
THERAPEUTIC EFFECTS	 Inhibits ascending pain pathways in CNS Increases pain threshold Alters pain perception by binding to opiate
CONTRAINDICATIONS	 receptors Hypersensitivity Asthma Severe renal disease Severe hepatic disease
SIDE EFFECTS	 Dizziness Bradycardia Hypotension Hypertension Blurred vision Nausea/Vomiting Urinary Retention Diaphoresis Respiratory depression
SPECIAL NOTES/RESTRICTIONS	 Light Sensitive DO NOT use in children < 2 years of age Paramedics may choose a lower IV/IO dose for adults and pediatrics at the Paramedic's discretion

GLUCAGON

INDICATIONS	Hypoglycemia
ADMINISTRATION	IM
DOSAGE	
ADULT	1mg IM
PEDIATRIC	0.5mg IM
THERAPEUTIC EFFECTS	Increases blood sugar
	Improves mental status
CONTRAINDICATIONS	• Hypersensitivity
	Hyperglycemia
SIDE EFFECTS	Hypotension
	Nausea and Vomiting
SPECIAL NOTES/RESTRICTIONS	• Peak effect occurs within 30 minutes
	• Pts can be hyperglycemic for one to
	two hours after

IBUPROFEN

(Motrin)	
INDICATIONS	Used for the management of fever of 100.4° F. or greater
ADMINISTRATION	Orally
DOSAGE	
ADULT	10mg/kg up to 800mg. Given in 200mg tablets so medication dosage will be rounded to nearest 200mg increment
PEDIATRIC	10mg/kg up to 800mg of Liquid Children's Motrin is used for pediatrics
THERAPEUTIC EFFECTS	As an antipyretic, Ibuprofen is used to manage fever and to treat/prevent sepsis
CONTRAINDICATIONS	AllergyPregnancyHyperglycemia
SIDE EFFECTS	 Nausea GI distress/bleeds Dizziness Skin rash Fluid retention Constipation Hypertension
SPECIAL NOTES/RESTRICTIONS	May decrease the effect of aspirin

KETAMINE (Ketalar)

(Ket	alar)
INDICATIONS	 For the chemical sedation of patients suffering from Hyperactive Delirium with Agitation as often exhibited by abuse of stimulant drugs, synthetic marijuana, and bath salts For pain management ONLY if: Severe non-cardiac pain rated at a 9 or 10 by the patient AND accompanying indications of severe pain such as increased heart rate, increased blood pressure, obvious significant injury, etc, OR Prolonged expected extrication time (> 10 minutes) where the patient is in severe pain due to significant injury For sedation prior to synchronized cardioversion or pacing in conscious patients that are hypotensive (SBP < 90mmHg)
ADMINISTRATION	 For Chemical Restraint: IV, IO or IM For Pain or Sedation for Electrical Therapy: IV Only
DOSAGE	¥
ADULT	 For Chemical Restraint: IV/IO: 2mg/kg slow push (over 1 minute) May repeat once in 10 minutes if needed IM: 5mg/kg in thigh. (May require multiple injections as a maximum of 5cc per injection may be given) May repeat once in 20-25 minutes if indicated. (IV route is preferred for repeat doses) For Pain Management: IV or IO Only: 0.5mg/kg to a maximum of 500mg SLOW IV/IO push NO repeat dosage unless permission granted by medical direction After 10 minutes, Fentanyl X 1 dose may be administered if needed for continued pain

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KETAMINE (continued)

(Ketalar)

DOSAGE (continued)	
ADULT (continued)	 For Sedation prior to cardioversion or pacing: IV or IO only: 0.5mg/kg to a maximum of 500mg SLOW IV/IO push NO repeat dosage unless permission granted by medical
PEDIATRIC	 direction For Chemical Restraint: IV: 2mg/kg slow push (over 1 minute) May repeat once in 10 minutes if needed IM for children <5 yoa: 3mg/kg in thigh May repeat once in 20-25 minutes if indicated (IV route is preferred for repeat doses) IM for children ≥5 yoa: 5mg/kg in thigh. (May require multiple injections as a maximum of 5cc per injection may be given) May repeat once in 20-25 minutes if indicated (IV route is preferred for repeat doses) Should NOT be administered to infants < 3 months old For Pain Management: IV or IO Only: 0.5mg/kg to a maximum of 500mg SLOW IV/IO push After 10 minutes, Fentanyl X 1 dose may be administered if needed for continued pain
	push

Continued on Next Page

KETAMINE (continued)

(Ketalar)

THERAPEUTIC EFFECTS	Anesthetic medication
	Amnesic
	• Reduces anxiety and causes sedation
	Decreases perception of pain
CONTRAINDICATIONS	• Allergic
	• Infants < 3 months of age
	 Increased nasal/oral secretions
SIDE EFFECTS	Muscle tremors
SIDE EFFECTS	Respiratory depression
	Elevated BP
	• After 10 minutes, Fentanyl X 1 dose
	may be administered if needed for
	continued moderate to severe pain.
	Additional doses of Ketamine or
SPECIAL NOTES/RESTRICTIONS	narcotics CANNOT be given without
	contacting medical control for
	permission
	• If a patient has received narcotics,
	Ketamine CANNOT be given without
	contacting medical control for
	permission
	• Ketamine CANNOT be given IM for
	pain management
	• Monitor waveform capnography if available
	• Administration of Atropine may be
	indicated if significant oral/nasal
	secretions develop when used for
	chemical restraint
	• If given IM for chemical restraint, an
	IV should be established after
	sedation. IV route is preferred for
	repeat doses
	• All uses of Ketamine MUST be
	reviewed by a peer reviewer

LABETOLOL

(Normodyne)

(INOT INOUVIE)	
INDICATIONS	Hypertensive Crisis
ADMINISTRATION	IV, IO
DOSEAGE	
ADULT	10-20mg IV or IO per online medical control
PEDIATRIC	Not indicated
THERAPEUTIC EFFECTS	Decreases blood pressure without reflex tachycardia or significant reduction in heart rate.
CONTRAINDICATIONS	 Hypersensitivity to Beta blockers, Cardiogenic shock 2nd or 3rd degree AV blocks, Sinus Bradycardia, CHF, or Bronchial Asthma Patients with VAD device
SIDE EFFECTS	 Orthostatic hypotension CHF Chest Pain Ventricular dysrhythmias AV Block
SPECIAL NOTES/RESTRICTIONS	 Use caution in patients who are pregnant, or have diabetes, or well compensated heart failure, and in the elderly Must have online medical direction to give in EMS setting

LACTATED RINGERS

(LR)

	(I X)
INDICATIONS	Trauma and Burns. First line IV fluid of choice for all trauma patients
ADMINISTRATION	IV/IO Infusion
DOSAGE	
ADULT	T.K.O. to W/O IV or IO
PEDIATRIC	T.K.O. to W/O (Boluses) IV/IO
THERAPEUTIC EFFECTS	 Expands circulation volume Isotonic solution Contains sodium chloride, potassium chloride, calcium chloride, and sodium lactate
CONTRAINDICATIONS	High doses in Congestive Heart Failure
SIDE EFFECTS	 Edema Fluid Overload Electrolyte imbalance Hypertension
SPECIAL NOTES/RESTRICTIONS	 Monitor vital signs continuously Listen to breath sounds for signs of pulmonary edema Can cause hypertension

LIDOCAINE (Xylocaine)

(Xylocaine)	
INDICATIONS	Ventricular arrhythmias, Pre IO fluid
	Infusion. PAI for patients w/head injuries
ADMINISTRATION	IV, IO, ETT, IV/IO infusion,
DOSAGE	
ADULT	 PVCs: 1mg/kg, if not suppressed give 0.5mg/kg every five minutes until PVCs suppressed or 3mg/kg has been given Lidocaine Drip must be started at 2mg/minute after using Lidocaine to treat Ventricular arrhythmias PAI: 1mg/kg for patients with a head injury Adult IO: Prior to infusion of fluids or flushes in the conscious adult patient you may administer 1mg/kg to a max of 50 mg, if no contraindications
PEDIATRIC	 2mg/kg ETT to a max of 6mg/kg for patients with V-Tach with a pulse, and V-Fib and V-Tach without a pulse Lidocaine Drip for post resuscitation at 30mcg/kg/min Head Injury 0.5mg/kg Pedi IO: Prior to infusion of fluids or flushes in the conscious pedi patient you may administer 0.5mg/kg to a max of 50mg, if no contraindications
THERAPEUTIC EFFECTS	 Suppresses Ventricular ectopy Elevates threshold for ventricular fibrillation Suppresses re-entry arrhythmias
CONTRAINDICATIONS	 Idioventricular rhythms 2nd and 3rd degree AV blocks Allergy to local anesthetics Sinus bradycardia Patients with VAD device unless in cardiac arrest
SIDE EFFECTS	 Arrhythmias Hypotension Irritability Muscle twitching Seizures
SPECIAL NOTES/RESTRICTIONS	 Successful use of Lidocaine IVP or IO should be followed by additional boluses Boluses should be reduced in cases of shock, CHF, or elderly patients

MAGNESIUM SULFATE 50%

INDICATIONS	 Prevention and control of seizures in severe toxemia of pregnancy (Eclampsia)
ADMINISTRATION	Slow IV/IO push, IV infusion
DOSAGE	
ADULT	 IVP: Loading dose is 4grams SLOW IV/IO Push over 15 minutes. Should be diluted 1:1 with NS Maintenance Dose: 1 gram/hr IV/IO drip
PEDIATRIC	Not used for pediatrics
THERAPEUTIC EFFECTS	 Blocks neuromuscular transmission Decreases the amount of acetylcholine liberated
CONTRAINDICATIONS	HypersensitivityPatients with VAD device
SIDE EFFECTS	 Side effects are a result of magnesium intoxication: Flushing, sweating, depressed reflexes, flaccid paralysis, hypothermia Hypotension Circulatory collapse, cardiac depression, CNS depression proceeding to respiratory paralysis Hypocalcemia
SPECIAL NOTES/RESTRICTIONS	 Monitor closely for magnesium intoxication especially falling BP and respiratory paralysis Should be used with caution on patients with renal impairment Administration of Calcium Gluconate will normally reverse magnesium intoxication
IV DRIP PREPARATION	 For 250cc Bag: Mix 5 grams in 250cc of NS Run at 50gtt/min For 500cc Bag: Mix 5 grams in 500cc of NS Run at 100gtt/min

MORPHINE

INDICATIONS	Pain management, Pulmonary Edema,
	CHF, and Cardiac Chest pain or AMI
ADMINISTRATION	IV, IO
DOSAGE	
ADULT	 Pain: 2-6mg may repeat if needed every 10 minutes or until systolic BP is <90mmHg Pulmonary Edema/CHF: 2-6mg may repeat once in 10 minutes if systolic BP >90mmHg Chest Pain: 2-6mg may repeat as need every 10 minutes until pain is relieved or systolic BP <90mmHg
PEDIATRIC	 Pain: 0.1mg/kg up to a max single dose of 3mg Pulmonary Edema: 0.1mg/kg to a max single dose of 3mg
THERAPEUTIC EFFECTS	 Binds with opiate receptors to reduce pain Peripheral vasodilation
CONTRAINDICATIONS	 Use of Monoamine Oxidase Inhibitors (MAOI's) within the past 14 days Asthma COPD Head Injury Hypotension Hypovolemia Respiratory depression Patients with a VAD device
SIDE EFFECTS	 Bradycardia Hypotension Nausea and vomiting Respiratory depression
SPECIAL NOTES/RESTRICTIONS	Naloxone (Narcan) and respiratory equipment should be immediately accessible.

NARCAN

(Naloxone)

	Orista Orandara Daamaa di OC
INDICATIONS	Opiate Overdose, Decreased LOC
ADMINISTRATION	IV, IO, ETT, IN (Intranasal)
DOSAGE	
ADULT	 IV/IO Dose: 2mg, may be repeated if no changes in patients mental status Patients on chronic high dosages of Narcotics give 0.1mg every 2-3 minutes for clinical effect. IN Dose: 2mg, may be repeated once if no increase in respirations or LOC
PEDIATRIC	 IV/IO Dose: 0.1mg/kg to a max of 2mg IN Dose: 0.1mg/kg to a max of 2mg, may be repeated once if no increase in respirations or LOC
THERAPEUTIC EFFECTS	Reverses effects of most narcotic agents
CONTRAINDICATIONS	Hypersensitivity to Naloxone
SIDE EFFECTS	 Acute Narcotic withdrawal Hypertension Irritability Nausea and vomiting Tachycardia
SPECIAL NOTES/RESTRICTIONS	 Does not reverse benzodiazepine overdoses May precipitate acute withdrawal symptoms Caution should be exercised when administering Naloxone to patients addicted to narcotics

NITROGLYCERIN

(Nitro-Bid, Nitrostat)

INDICATIONS	Chest Pain, Pulmonary Edema, CHF
ADMINISTRATION	SL
DOSAGE	
ADULT	 Chest Pain or ACS: If systolic BP is >90mmHg give 0.4mg SL or 1 metered spray of Nitro spray, every 5 minutes until symptoms relieved or Systolic blood pressure < 90mmHg Pulmonary Edema/CHF: If systolic BP > 90mmHg give one Nitro 0.4mg SL or one metered Nitro Spray, may repeat X 1
PEDIATRIC	NOT INDICATED
THERAPEUTIC EFFECTS	Dilates coronary and systemic arteries
CONTRAINDICATIONS	 Head trauma Hypertrophic Cardiomyopathy Glaucoma Hypotension Use of Viagra, Cialis or Levitra within past 48 hours Patients with a VAD device
SIDE EFFECTS	DizzinessHeadacheHypotension
SPECIAL NOTES/RESTRICTIONS	Contact Medical Control prior to administration if taking Viagra, Cialis or Levitra

NORCURON

(Vecuronium)

(vecui	omum)
INDICATIONS	• To facilitate emergent endotracheal
	intubation
	Provide skeletal muscle relaxation
	during artificial ventilations
ADMINISTRATION	IV, IO
DOSAGE	
	0.15mg/kg to a max of 20mg and may
ADULT	repeat dosage at 0.01mg/kg if needed
	0.15mg/kg to a max of 20mg and may
PEDIATRIC	repeat dosage at 0.01mg/kg if needed
	• The agent is a non-depolarizing
	skeletal muscle relaxant
	• This agent acts by competing for
THERAPEUTIC EFFECTS	cholinergic receptors, which prevents
	acetylcholine from binding to the
	receptors on the muscle end plate, thus
	blocking depolarization
CONTRAINICATIONS	Hypersensitivity to the drug
	• Serious histamine mediated flushing
	Hypotension
	Bronchoconstriction
SIDE EFFECTS	 Transient increase in heart rate
	 Respiratory depression and Apnea
	• The patient will be completely
	paralyzed and in respiratory arrest for
SPECIAL NOTES/ RESTRICTIONS	20-30 minutes following the
	administration of norcuron-Complete
	airway control management will be
	necessary
	• The agent has no effect on
	consciousness, cerebration or pain
	threshold
	• Use with Anectine may enhance the
	neuromuscular blocking effect of
	Norcuron

NORMAL SALINE

(0.9% Sodium Chloride)

	,
INDICATIONS	Non-traumatic hypovolemic status, as a
	flushing agent, D.K.A. and as an
	irrigation solution for eyes. First line IV
	fluid of choice for medical conditions
ADMINISTRATION	IV/IO Push, IV/IO Infusion
DOSAGE	
ADULT	T.K.O. to W/O IV or IO
PEDIATRIC	T.K.O. to W/O (Fluid Boluses) IV/IO
THERAPEUTIC EFFECTS	Expands circulation volume
	Isotonic solution
CONTRAINDICATIONS	High doses in Congestive Heart Failure
	• Edema
	Fluid Overload
SIDE EFFECTS	Electrolyte imbalance
	Hypertension
SPECIAL NOTES/RESTRICTIONS	Monitor vital signs continuously
	• Listen to breath sounds for signs of
	pulmonary edema
	Can cause hypertension

ORAL GLUCOSE

INDICATIONS	Low blood sugar
ADMINISTRATION	Buccal
DOSAGE	
ADULT	15g between cheek and gum, may repeat to desired effect
PEDIATRIC	15g between cheek and gum, may repeat to desired effect
THERAPEUTIC EFFECTS	Increases blood sugar in patients that are alert and able to swallow
CONTRAINDICATIONS	Unconscious patientsHyperglycemia
SIDE EFFECTS	None
SPECIAL NOTES/RESTRICTIONS	Only administer to patients that are alert and able to swallow

OXYGEN

	Treat Hypoxemia			
INDICATIONS	Help decrease work of breathing			
	Decreases myocardial work			
ADMINISTRATION	Inhalation			
DOSAGE				
	• 1-6lpm via Nasal cannula			
ADULT	• 8-15lpm via Non-Rebreather Mask			
ADOLI	• 3-6lpm via Hand Held Nebulizer			
	• 15lpm via BVM or ETT			
	• 1-6lpm via Nasal cannula			
PEDIATRIC	• 8-15lpm via Non-Rebreather Mask			
PEDIATRIC	• 3-6lpm via Hand Held Nebulizer			
	• 15lpm via BVM or ETT			
	Supplemental Oxygen increases			
	alveolar oxygen tension			
THERAPEUTIC EFFECTS	• Reduces both the magnitude and			
	extent of ST changes during an AMI			
	DO NOT GIVE SUPPLEMENTAL			
CONTRAINDICATIONS	OXYGEN IN A PARAQUAT			
	POISONING			
SIDE EFFECTS	None for short term emergency use			
	• Do NOT withhold Oxygen from a			
SPECIAL NOTES/RESTRICTIONS	COPD patient if he/she needs it			
	Monitor SPO2 continuously			

RACEMIC EPINEPHRINE

(Micronefrin, Vapo Nefrin)

(Microherrin, vapo Neirin)						
INDICATIONS	Croup					
ADMINISTRATION	Inhalation					
DOSAGE						
	DO NOT GIVE TO ADULT					
ADULT	PATIENTS					
PEDIATRIC	<40KG: 11.25mg Racemic Epinephrine in					
	2mL 2.25% saline solution via nebulizer					
THERAPEUTIC EFFECTS	Bronchodilator					
	Vasoconstrictor					
	Hypersensitivity					
CONTRAINDICATIONS	• Epiglottitis					
	• Significant underlying cardiovascular					
	disease					
	Anxiety					
	Palpitations					
SIDE FEFECTS	• Headache					
SIDE EFFECTS	• Tremors					
	Tachycardia					
	Nausea/Vomiting					
	Monitor vital signs closely					
	• Should be used only once prehospital					
	(contact medical control if another is					
	needed)					
	• Excessive use may cause					
	bronchospasms					
	• May develop "rebound worsening"					
SPECIAL NOTES/RESTRICTIONS	within 30-60 minutes					
	• Effects last from 90-120 minutes					
	• PATIENT MUST BE					
	TRANSPORTED AFTER					
	RECEIVING RACEMIC					
	EPINEPHRINE					
	• Heat and Light sensitive should be					
	stored in a dark cool place					

ROCURONIUM

(Zemuron)							
INDICATIONS	 To facilitate emergent endotracheal intubation Provide skeletal muscle relaxation during artificial ventilations 						
ADMINISTRATION	IV, IO						
DOSAGE							
ADULT	1mg/kg. May repeat dosage at 0.1mg/kg if needed after 12 minutes						
PEDIATRIC	 Preferred Paralytic for Pediatrics 1mg/kg. May repeat dosage at 0.1mg/kg if needed after 12 minutes 						
THERAPEUTIC EFFECTS	 The agent is a non-depolarizing skeletal muscle relaxant This agent acts by competing for cholinergic receptors, which prevents acetylcholine from binding to the receptors on the muscle end plate, thus blocking depolarization 						
CONTRAINICATIONS	Hypersensitivity to the drug						
SIDE EFFECTS	 Serious histamine mediated flushing Hypotension Bronchoconstriction Transient increase in heart rate Myopathy Respiratory depression and Apnea Redness and itching at IV site 						
SPECIAL NOTES/ RESTRICTIONS	 The patient will be completely paralyzed and in respiratory arrest for 20-60 minutes following the administration of Rocuronium-Complete airway control management will be necessary The agent has no effect on consciousness, cerebration or pain threshold Use with Succinylcholine may enhance the neuromuscular blocking effect of Rocuronium 						

SODIUM BICARBONATE

	Cardiac Arrest, May also be given for					
INDICATIONS	KNOWN Tricyclic Antidepressant O.D.,					
	Hyperkalemia or Acidosis					
ADMINISTRATION	IV, IO					
DOSAGE						
ADULT	 1mEq/kg up to 100mEq. May be repeated at 0.5mEq/kg every 10 minutes to a max of 50 mEq. Paramedics may give in prolonged cardiac arrest (>20 minutes) without online medical direction 					
PEDIATRIC	NOT INDICATED					
THERAPEUTIC EFFECTS	 Buffers strong acids in the blood Antagonizes sodium channel blockade in TCA overdose Prevents resorption of salicylates in renal tubes 					
CONTRAINDICATIONS	HypokalemiaPulmonary Edema					
SIDE EFFECTS	 Dysrhythmias secondary to potassium effects Metabolic alkalosis Pulmonary edema 					
SPECIAL NOTES/RESTRICTIONS	 MUST CONTACT ON-LINE MEDICAL CONTROL for any usage other than prolonged cardiac arrest (>20 minutes) Not to be used in place of proper ventilation to prevent acidosis In patients less than 2 year of age you must dilute 1:1 with NS 					

SUCCINYLCHOLINE

(Anectine)					
INDICATIONS To facilitate Pharmacological As					
INDICATIONS	Intubation (PAI)				
ADMINISTRATION	IV, IO				
DOSAGE					
ADULT	2mg/kg rapid IV or IO push, to a max of 200mg. Do not repeat without medical control authorization.				
PEDIATRIC	2mg/kg rapid IV or IO push, to a max of 200mg. Do not repeat without medical control authorization				
THERAPEUTIC EFFECTS	• Inhibits transmission of nerve impulses by binding with cholinergic receptors sites, antagonizing action of acetylcholine causes release of histamine				
CONTRAINDICATIONS	 Burns greater than 48 hours old Kidney Dialysis Chronic neuromuscular disease or any chronic paralysis Hypersensitivity 				
SIDE EFFECTS	 Bradycardia Tachycardia Hypertension Dysrhythmias Apnea Respiratory depression 				
SPECIAL NOTES/ RESTRICTIONS	Monitor vital signs closely				

VALIUM

(Diazepam)

(Diazepain)						
INDICATIONS	Major motor seizures, Status Epilepticus					
ADMINISTRATION	IV, IO, and Rectal					
DOSAGE						
ADULT	Seizures: 5mg IV, if no changes repeat 5 mg every 5 minutes until seizures controlled. Rectally one dose 10mg					
PEDIATRIC	 Seizures: 0.1mg/kg, IV to a max of 5mg per dose, may repeat dose every 5 minutes until seizures controlled. Rectal: 0.5mg/kg, rectal to a max of 10 mg per dose 					
THERAPEUTIC EFFECTS	 Suppresses spread of seizure activity through the motor cortex Skeletal muscle relaxant Reduces anxiety and causes sedation 					
CONTRAINDICATIONS	 Respiratory depression Hypotension Allergy 					
SIDE EFFECTS	 Hypotension Respiratory depression Use caution in the elderly patients 					
SPECIAL NOTES/RESTRICTIONS	 Intramuscularly administration leads to widely variable absorption and should be avoided if possible. For patients with VAD device, only use for continuous seizures, and use the lowest effective dose 					

VERSED

(Midazolam)

	(Mildazolam)
INDICATIONS	Premedication for cardioversion, Seizures, Chemical Sedation and Restraint
ADMINISTRATION	IV, IO, IM, IN (Intranasal)
DOSAGE	
ADULT	 Cardioversion: IV/IO: 5mg IV or IO if BP>90mmHg (2.5mg if patient is >60 years of age) IN: 0.2mg/kg to a max of 5mg, repeated every 5-10 minutes as needed as long as SBP > 90mmHg Chemical Sedation: IV/IO, IM: 1-5mg IV, IO or IM 0.5mg/kg to a max of 5mg per dose IN: 0.2mg/kg to a max of 5mg, repeated every 5-10 minutes as needed as long as SBP > 90mmHg Seizure: IM: 5mg IM, may be repeated at 2.5mg every 10 minutes as needed to control seizure activity. IN: 0.2mg/kg to a max of 5mg, May repeat every 5-10 minutes at 0.1mg/kg to a max of 2.5
PEDIATRIC	 Cardioversion: IV/IO: 0.1mg/kg IV or IO to a max of 2.5mg Chemical Sedation: IV/IO, IM: 0.1mg/kg IV or IO to a max of 5mg IN: 0.2mg/kg to a max of 5mg, repeated every 5-10 minutes as needed as long as SBP > 90mmHg Seizures: IM: 0.2mg/kg IM to a max of 5mg, may repeat 0.1mg/kg every 10 minutes as needed. IN: 0.2mg/kg to a max of 5mg, May repeat every 5-10 minutes at 0.1mg/kg to a max of 2.5
THERAPEUTIC EFFECTS	C.N.S. depressantThe agent causes amnesia by unknown mechanism
CONTRAINDICATIONS	 Hypersensitivity Pre-existing respiratory depression due to drugs or C.N.S. dysfunction Use with caution, if at all, for shock states, head injury patients and comatose patients
SIDE EFFECTS	 Amnesia, Tonic-clonic activity, drowsiness, and lethargy Tachycardia and Hypotension Photophobia, blurred vision and nystagmus Nausea, vomiting, depressed gag reflex Pain and phlebitis at injection site
SPECIAL NOTES/RESTRICTIONS	 This agent is 3-4 times as potent as diazepam on a milligram to milligram basis. It has a more rapid onset and shorter half-life than Valium Monitor ECG, V/S, and SPO2 continuously For patients with VAD device, only use for continuous seizures, and use the lowest effective dose

XOPENEX (Levalbuterol)

(Levalputerol)						
INDICATIONS	Respiratory distress with patients that have Asthma or COPD					
ADMINISTRATION	Nebulized via supplemental oxygen					
DOSAGE						
ADULT	1.25mg/3ml nebulized, may repeat once if no relief					
PEDIATRIC	1.25mg/3ml nebulized, may repeat once if no relief					
	Relaxes soft muscles					
THERAPEUTIC EFFECTS	Causes bronchodilation					
	Causes cardiac stimulation					
	Hypersensitivity to drug					
CONTRAINDICATIONS	Tachydysrhythmias					
	Severe cardiac disease					
	Dizziness					
	Migraine					
	Nervousness					
SIDE EFFECTS	• Anxiety					
	Tachycardia					
	Increased cough					
	• Use with caution in patients with					
	Cardio Vascular disorders					
	• Use caution in patients with Diabetes					
SPECIAL NOTES/RESTRICTIONS	and seizure disorders					
	• For patients with a VAD device, limit					
	to one dose					
<u>.</u>	-					

ZOFRAN

(Ondansetron)

INDICATIONS	Nausea and Vomiting
ADMINISTRATION	IV, IO, PO via ODT
DOSAGE	
ADULT	 4mg IV/IO or via ODT For ODT administration, Patient must be conscious and able to follow commands
PEDIATRIC	 NOT INDICATED FOR CHILDREN < 2 YEARS OF AGE IV/IO: if over 2 years of age: 0.1mg/kg IV/IO push to a max of 4mg ODT: If over 2 but less than 4 years of age: 2mg (1/2 tablet) Patient must have GCS of 15 If 4 years of age or older: 4mg (1 tablet) Patient must have GCS of 15
THERAPEUTIC EFFECTS	Helps reverse the effects of nauseaMay potentate the effects of CNS depressants
CONTRAINDICATIONS SIDE EFFECTS	 Hypersensitivity to drug Intestinal obstruction Seizure disorder Dizziness Drowsiness Blurred Vision Hypotension
	ConstipationDiarrheaFatigue
SPECIAL NOTES/RESTRICTIONS	 Do NOT administer to children < 2 YOA Zofran ODT is administered by placing the tablet on top of the tongue and encouraging the patient to allow it to dissolve without swallowing Zofran IV is the preferred administration route. Zofran ODT may be given by EMTs or by ALS personnel if unable to establish an IV. If Zofran ODT is given, the highest certified crewmember must maintain control of patient care and document the call on the PCR

ADULT MEDICATIONS FOR WEIGHTS UP TO 100KG Page 1 of 2

Weight (lbs)	110lbs	132lbs	154lbs	176lbs	198lbs	220lbs
Weight (kg)	50kg	60kg	70kg	80kg	90kg	100kg
Acetaminophen (PO), 10mg/kg up to 1,000mg (500mg tablets)	500mg	500mg	500mg	1,000mg	1,000mg	1,000mg
Acetaniniophen (PO), Toing/kg up to 1,000mg (Soonig tablets)	(1 tablet)	(1 tablet)	(1 tablet)	(2 tablets)	(2 tablets)	(2 tablets)
IV Acetaminophen, 1,000mg in 100ml of D5W or NS Given IV infusion over 15 minutes	100cc over 15					
	minutes	minutes	minutes	minutes	minutes	minutes
Activated Charcoal 1g/kg up to 50g	50g PO					
Adenosine 12mg Rapid IV push, may be repeated once at 12mg rapid IV push	12mg	12mg	12mg	12mg	12mg	12mg
Amiodarone 150mg IV over 10 minutes for VT with a pulse	150mg	150mg	150mg	150mg	150mg	150mg
Amiodarone 300mg rapid IV for VF/VT without a pulse may repeat once at 150mg	300mg	300mg	300mg	300mg	300mg	300mg
Aspirin (ASA) 325mg PO	325mg	325mg	325mg	325mg	325mg	325mg
Atropine for Bradycardia 1mg may be repeated to a max of 3mg	1mg	1mg	1mg	1mg	1mg	1mg
Benadryl 50mg IVP	50mg	50mg	50mg	50mg	50mg	50mg
Benadryl 50mg PO (Administer two 25mg Tablets)	50mg	50mg	50mg	50mg	50mg	50mg
Calcium Gluconate 1 gram SLOW IV Push	1 gram					
Decadron 20mg SIVP	20mg	20mg	20mg	20mg	20mg	20mg
Dextrose 10% (D10W): Administer IV bolus using a 10-Drop set. Titrate to LOC.	Titrate to					
	Effect	Effect	Effect	Effect	Effect	Effect
Dopamine 5mcg/kg/min 200mg/250mL (60-Drop Set)	18gtts/min	23gtts/min	26gtts/min	30gtts/min	34gtts/min	38gtts/min
Dopamine 10mcg/kg/min 200mg/250mL (60-Drop Set)	38gtts/min	45gtts/min	53gtts/min	60gtts/min	68gtts/min	75gtts/min
Dopamine 15mcg/kg/min 200mg/250mL (60-Drop Set)	56gtts/min	68gtts/min	79gtts/min	90gtts/min	101gtts/min	113gtts/min
Dopamine 20mcg/kg/min 200mg/250mL (60-Drop Set)	75gtts/min	90gtts/min	105gtts/min	120gtts/min	135gtts/min	150gtts/min
Duo-Neb, 3mg of Albuterol with 0.5mg of Ipratropium in 3cc, Nebulized	3mg/0.5mg in					
(Albuterol/Ipratropium)	3cc	3cc	3cc	3cc	3cc	3cc
Epi 1:1,000 0.3mg IM	0.3mg	0.3mg	0.3mg	0.3mg	0.3mg	0.3mg
Epi 1:10,000 1mg IVP or 2mg ETT	1mg/2mg	1mg/2mg	1mg/2mg	1mg/2mg	1mg/2mg	1mg/2mg
Epinephrine DRIP, 1mg of 1:1,000 mixed in 100cc of NS at 2mcg/min (60-Drop Set)	12gtt/min	12gtt/min	12gtt/min	12gtt/min	12gtt/min	12gtt/min
Epinephrine DRIP, 1mg of 1:1,000 mixed in 100cc of NS at 4mcg/min (60-Drop Set)	24gtt/min	24gtt/min	24gtt/min	24gtt/min	24gtt/min	24gtt/min
Epinephrine DRIP, 1mg of 1:1,000 mixed in 100cc of NS at 6mcg/min (60-Drop Set)	36gtt/min	36gtt/min	36gtt/min	36gtt/min	36gtt/min	36gtt/min
Epinephrine DRIP, 1mg of 1:1,000 mixed in 100cc of NS at 8mcg/min (60-Drop Set)	48gtt/min	48gtt/min	48gtt/min	48gtt/min	48gtt/min	48gtt/min
Epinephrine DRIP, 1mg of 1:1,000 mixed in 100cc of NS at 10mcg/min (60-Drop Set)	60gtt/min	60gtt/min	60gtt/min	60gtt/min	60gtt/min	60gtt/min
Epinephrine DRIP, 1mg of 1:1,000 mixed in 250cc of NS at 2mcg/min (60-Drop Set)	30gttmin	30gttmin	30gttmin	30gttmin	30gttmin	30gttmin
Epinephrine DRIP, 1mg of 1:1,000 mixed in 250cc of NS at 4mcg/min (60-Drop Set)	60gtt/min	60gtt/min	60gtt/min	60gtt/min	60gtt/min	60gtt/min
Epinephrine DRIP, 1mg of 1:1,000 mixed in 250cc of NS at 6mcg/min (60-Drop Set)	90gtt/min	90gtt/min	90gtt/min	90gtt/min	90gtt/min	90gtt/min
Epinephrine DRIP, 1mg of 1:1,000 mixed in 250cc of NS at 8mcg/min (60-Drop Set)	120gtt/min	120gtt/min	120gtt/min	120gtt/min	120gtt/min	120gtt/min
Epinephrine DRIP, 1mg of 1:1,000 mixed in 250cc of NS at 10mcg/min	150gtt/min	150gtt/min	150gtt/min	150gtt/min	150gtt/min	150gtt/min
Etomidate 0.3mg/ kg IV to a max of 40mg	15mg	18mg	21mg	24mg	27mg	30mg
Fentanyl, IV: 2.5-5mcg/kg to a max of 100mcg single does. May repeat once	100mcg	100mcg	100mcg	100mcg	100mcg	100mcg
Fentanyl, Intranasal (MAD): 2mcg/kg to a max of 100mcg per dose	100mcg	100mcg	100mcg	100mcg	100mcg	100mcg
Glucagon 1mg IM	1mg	1mg	1mg	1mg	1mg	1mg
Ibuprofen, 10mg/kg up to 800mg (200mg tablets)	400mg	600mg	600mg	800mg	800mg	800mg
	(2 tablets)	(3 tablets)	(3 tablets)	(4 tablets)	(4 tablets)	(4 tablets)
Ketamine IV Push For Chemical Restraint: 2mg/kg (Administer slowly over 1 minute)	100mg	120mg	140mg	160mg	180mg	200mg

ADULT MEDICATIONS FOR WEIGHTS UP TO 100KG Page 2 of 2

Weight (lbs)	110lbs	132lbs	154lbs	176lbs	198lbs	220lbs
Weight (kg)	50kg	60kg	70kg	80kg	90kg	100kg
Ketamine IM For Chemical Restraint: 5mg/kg (In Thigh) May require multiple	250	200	250	400	450	500
injections as maximum of 5cc per injection may be given	250mg	300mg	350mg	400mg	450mg	500mg
Ketamine for Pain Management: 0.5mg/kg SLOW IV or IO push to a maximum of 500mg	25mg	30mg	35mg	40mg	45mg	50mg
Ketamine for Sedation prior to Cardioversion or Pacing: 0.5mg/kg SLOW IV or IO push to a maximum of 500mg	25mg	30mg	35mg	40mg	45mg	50mg
Labetalol 10-20mg IVP (MUST CONTACT MEDICAL CONTROL BEFORE ADMINISTERING)	10-20mg	10-20mg	10-20mg	10-20mg	10-20mg	10-20mg
Lidocaine for PVCs 1mg/kg IV may be repeated at 0.5mg/kg to a max of 3mg/kg	50mg/25mg	60mg/30mg	70mg/35mg	80mg/40mg	90mg/45mg	100mg/50mg
Lidocaine for VF/VT given via ETT 2mg/kg may repeat at 2mg/kg to a max of 6mg/kg	100mg	120mg	140mg	160mg	180mg	200mg
Lidocaine Drip 2-4mg/minute (60-Drop Set)	30-60gtt/min	30-60gtt/min	30-60gtt/min	30-60gtt/min	30-60gtt/min	30-60gtt/min
Magnesium Sulfate 4 grams Loading Dose (diluted 1:1 and given SLOWLY over 15 minutes	4 grams					
Magnesium Sulfate Maintenance Drip, 1g/hr. 5 grams in 250cc of NS (60-Drop Set)	50gtt/min	50gtt/min	50gtt/min	50gtt/min	50gtt/min	50gtt/min
Magnesium Sulfate Maintenance Drip, 1g/hr. 5 grams in 500cc of NS (60-Drop Set)	100gtt/min	100gtt/min	100gtt/min	100gtt/min	100gtt/min	100gtt/min
Morphine 2-6mg every 10 minutes (half dosage in pts >60y/o)	2-6mg	2-6mg	2-6mg	2-6mg	2-6mg	2-6mg
Narcan, IV: 2mg may repeat once if no change in mental status	2mg	2mg	2mg	2mg	2mg	2mg
Narcan, Intranasal: 2mg, IN may repeat once if no respiratory improvement	2mg	2mg	2mg	2mg	2mg	2mg
Nitro Spray 0.4mg SL max of 3 if BP>90 systolic	0.4mg	0.4mg	0.4mg	0.4mg	0.4mg	0.4mg
Norcuron 0.15mg/kg to a max of 20mg may repeat at 0.01mg/kg if needed	7.5mg	9mg	10.5mg	12mg	13.5mg	15mg
Oral Glucose 15g between check and gum may repeat to desired effect	15g	15g	15g	15g	15g	15g
Racemic Epi	Not indicated					
Rocuronium (INITIAL DOSE) 1mg/kg	50mg	60mg	70mg	80mg	90mg	100mg
Rocuronium (REPEAT DOSE) repeated X1 in 12 minutes if needed 0.1mg/kg	5mg	6mg	7mg	8mg	9mg	10mg
Sodium Bicarbonate 1meq/kg to a max of 100meq, may repeat at 0.5meq every 10 minutes up to 50meq	50meq	60meq	70meq	80meq	90meq	100meq
Succinylcholine 2mg/kg rapid IVP	100mg	120mg	140mg	160mg	180mg	200mg
Valium 5mg IV for active seizures may repeat as needed at 5mg every 5 minutes	5mg	5mg	5mg	5mg	5mg	5mg
Versed 5mg IVP if BP>90 systolic (2.5mg if pt >60)	5mg	5mg	5mg	5mg	5mg	5mg
Versed, Intranasal for SEIZURE activity (0.2mg/kg to a max of 5mg)	5mg	5mg	5mg	5mg	5mg	5mg
Versed, Intranasal, for SEIZURE activity, REPEAT DOSAGE at 0.1mg/kg to a max of 2.5mg	2.5mg	2.5mg	2.5mg	2.5mg	2.5mg	2.5mg
Versed, Intranasal, for SEDATION: 0.2mg/kg to a max of 5mg. May repeat every 5-10 minutes as needed as long as SBP>90mmHg	5mg	5mg	5mg	5mg	5mg	5mg
Xopenex 1.25mg/3cc NS Nebulized may be repeated at same dose if needed	1.25mg/3cc	1.25mg/3cc	1.25mg/3cc	1.25mg/3cc	1.25mg/3cc	1.25mg/3cc
Zofran 4mg IVP	4mg	4mg	4mg	4mg	4mg	4mg
Zofran ODT (administer 1 4mg tablet by placing on tongue)	4mg	4mg	4mg	4mg	4mg	4mg

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Weight (kg) Acetaminophen (PO), 10mg/kg up to 1,000mg (500mg tablets) IV Acetaminophen, 1,000mg in 100ml of D5W or NS Given IV infusion over 15 minutes Activated Charcoal 1g/kg up to 50g Adenosine 12mg Rapid IV push, may be repeated once at 12mg rapid IV push	110kg1,000mg (2 tablets)100cc over 15minutes50g PO	120kg 1,000mg (2 tablets) 100cc over 15	130kg 1,000mg (2 tablets)	140kg 1,000mg (2 tablets)	150kg
IV Acetaminophen, 1,000mg in 100ml of D5W or NS Given IV infusion over 15 minutes Activated Charcoal 1g/kg up to 50g	100cc over 15 minutes		1,000mg (2 tablets)	1.000mg (2 tablata)	0
Activated Charcoal 1g/kg up to 50g	minutes	100cc over 15		1,000mg (2 tablets)	1,000mg (2 tablets)
Activated Charcoal 1g/kg up to 50g			100cc over 15	100cc over 15	100cc over 15
	50g PO	minutes	minutes	minutes	minutes
Adenosine 12mg Rapid IV nush may be repeated once at 12mg rapid IV nuch		50g PO	50g PO	50g PO	50g PO
	12mg	12mg	12mg	12mg	12mg
Amiodarone 150mg IV over 10 minutes for VT with a pulse	150mg	150mg	150mg	150mg	150mg
Amiodarone 300mg rapid IV for VF/VT without a pulse may repeat once at 150mg	300mg	300mg	300mg	300mg	300mg
Aspirin (ASA) 325mg PO	325mg	325mg	325mg	325mg	325mg
Atropine for Bradycardia 1mg may be repeated to a max of 3mg	1mg	1 mg	1mg	1mg	1 mg
Benadryl 50mg IVP	50mg	50mg	50mg	50mg	50mg
Benadryl 50mg PO (Administer two 25mg Tablets)	50mg	50mg	50mg	50mg	50mg
Calcium Gluconate 1 gram SLOW IV Push	1gram	1gram	1gram	1gram	1gram
Decadron 20mg SIVP	20mg	20mg	20mg	20mg	20mg
Dextrose 10% (D10W): Administer IV bolus using a 10-Drop set. Titrate to LOC.	Titrate to	Titrate to	Titrate to	Titrate to	Titrate to
	Effect	Effect	Effect	Effect	Effect
Dopamine 5mcg/kg/min 200mg/250mL (60-Drop Set)	40gtts/min	45gtts/min	49gtts/min	53gtts/min	56gtts/min
Dopamine 10mcg/kg/min 200mg/250mL (60-Drop Set)	84gtts/min	90gtts/min	98gtts/min	105gtts/min	113gtts/min
Dopamine 15mcg/kg/min 200mg/250mL (60-Drop Set)	124gtts/min	135gtts/min	146gtts/min	158gtts/min	169gtts/min
Dopamine 20mcg/kg/min 200mg/250mL (60-Drop Set)	165gtts/min	180gtts/min	195gtts/min	210gtts/min	225gtts/min
Duo-Neb, 3mg of Albuterol with 0.5mg of Ipratropium in 3cc, Nebulized (Albuterol/Ipratropium)	3mg/0.5mg in 3cc	3mg/0.5mg in 3cc	3mg/0.5mg in 3cc	3mg/0.5mg in 3cc	3mg/0.5mg in 3cc
Epi 1:1,000 0.3mg IM	0.3mg	0.3mg	0.3mg	0.3mg	0.3mg
Epi 1:10,000 1mg IVP or 2mg ETT	1mg/2mg	1mg/2mg	1mg/2mg	1mg/2mg	1mg/2mg
Epinephrine DRIP, 1mg of 1:1,000 mixed in 100cc of NS at 2mcg/min (60-Drop Set)	12gtt/min	12gtt/min	12gtt/min	12gtt/min	12gtt/min
Epinephrine DRIP, 1mg of 1:1,000 mixed in 100cc of NS at 4mcg/min (60-Drop Set)	24gtt/min	24gtt/min	24gtt/min	24gtt/min	24gtt/min
Epinephrine DRIP, 1mg of 1:1,000 mixed in 100cc of NS at 6mcg/min (60-Drop Set)	36gtt/min	36gtt/min	36gtt/min	36gtt/min	36gtt/min
Epinephrine DRIP, 1mg of 1:1,000 mixed in 100cc of NS at 8mcg/min (60-Drop Set)	48gtt/min	48gtt/min	48gtt/min	48gtt/min	48gtt/min
Epinephrine DRIP, 1mg of 1:1,000 mixed in 100cc of NS at 10mcg/min (60-Drop Set)	60gtt/min	60gtt/min	60gtt/min	60gtt/min	60gtt/min
Epinephrine DRIP, 1mg of 1:1,000 mixed in 250cc of NS at 2mcg/min (60-Drop Set)	30gttmin	30gttmin	30gttmin	30gttmin	30gttmin
Epinephrine DRIP, 1mg of 1:1,000 mixed in 250cc of NS at 4mcg/min (60-Drop Set)	60gtt/min	60gtt/min	60gtt/min	60gtt/min	60gtt/min
Epinephrine DRIP, 1mg of 1:1,000 mixed in 250cc of NS at 6mcg/min (60-Drop Set)	90gtt/min	90gtt/min	90gtt/min	90gtt/min	90gtt/min
Epinephrine DRIP, 1mg of 1:1,000 mixed in 250cc of NS at 8mcg/min (60-Drop Set)	120gtt/min	120gtt/min	120gtt/min	120gtt/min	120gtt/min
Epinephrine DRIP, 1mg of 1:1,000 mixed in 250cc of NS at 10mcg/min (60-Drop Set)	150gtt/min	150gtt/min	150gtt/min	150gtt/min	150gtt/min
Etomidate 0.3mg/ kg IV to a max of 40mg	33mg	36mg	39mg	40mg	40mg
Fentanyl, IV: 2.5-5mcg/kg to a max of 100mcg single does. May repeat once	100mcg	100mcg	100mcg	100mcg	100mcg
Fentanyl, Intranasal (MAD): 2mcg/kg to a max of 100mcg per dose	100mcg	100mcg	100mcg	100mcg	100mcg
Glucagon 1mg IM	1mg	1 mg	1mg	1mg	1 mg
	800mg (4 tablets)	800mg (4 tablets)	800mg (4 tablets)	800mg (4 tablets)	800mg (4 tablets)
Ketamine IV Push For Chemical Restraint: 2mg/kg (Administer slowly over 1 minute)	220mg	240mg	260mg	280mg	300mg

ADULT MEDICATIONS FOR WEIGHTS OF 110KG AND OVER Page 2 of 2

Weight (lbs)	242lbs	264lbs	286lbs	308lbs	330lbs
Weight (kg)	110kg	120kg	130kg	140kg	150kg
Ketamine IM For Chemical Restraint: 5mg/kg (In Thigh) May require multiple	550ma	600m a	650mg	700mg	750mg
injections as maximum of 5cc per injection may be given	550mg	600mg	osonig	70011ig	730IIIg
Ketamine for Pain Management: 0.5mg/kg SLOW IV or IO push to a maximum of 500mg	55mg	60mg	65mg	70mg	75mg
Ketamine for Sedation prior to Cardioversion or Pacing: 0.5mg/kg SLOW IV or IO push to a maximum of 500mg	55mg	60mg	65mg	70mg	75mg
Labetalol 10-20mg IVP (MUST CONTACT MEDICAL CONTROL BEFORE ADMINISTERING)	10-20mg	10-20mg	10-20mg	10-20mg	10-20mg
Lidocaine for PVCs 1mg/kg IV may be repeated at 0.5mg/kg to a max of 3mg/kg	110mg/55mg	120mg/60mg	130mg/65mg	140mg/70mg	150mg/75mg
Lidocaine for VF/VT given via ETT 2mg/kg may repeat at 2mg/kg to a max of 6mg/kg	220mg	240mg	260mg	280mg	300mg
Lidocaine Drip 2-4mg/minute (60-Drop Set)	30-60gtt/min	30-60gtt/min	30-60gtt/min	30-60gtt/min	30-60gtt/min
Magnesium Sulfate 4 grams Loading Dose (diluted 1:1 and given SLOWLY over 15 minutes	4 grams				
Magnesium Sulfate Maintenance Drip, 1g/hr. 5 grams in 250cc of NS (60-Drop Set)	50gtt/min	50gtt/min	50gtt/min	50gtt/min	50gtt/min
Magnesium Sulfate Maintenance Drip, 1g/hr. 5 grams in 500cc of NS (60-Drop Set)	100gtt/min	100gtt/min	100gtt/min	100gtt/min	100gtt/min
Morphine 2-6mg every 10 minutes (half dosage in pts >60y/o)	2-6mg	2-6mg	2-6mg	2-6mg	2-6mg
Narcan, IV: 2mg may repeat once if no change in mental status	2mg	2mg	2mg	2mg	2mg
Narcan, Intranasal: 2mg, IN may repeat once if no respiratory improvement	2mg	2mg	2mg	2mg	2mg
Nitro Spray 0.4mg SL max of 3 if BP>90 systolic	0.4mg	0.4mg	0.4mg	0.4mg	0.4mg
Norcuron 0.15mg/kg to a max of 20mg may repeat at 0.01mg/kg if needed	16.5mg	18mg	19.5mg	20mg	20mg
Oral Glucose 15g between check and gum may repeat to desired effect	15g	15g	15g	15g	15g
Racemic Epi	Not Indicated				
Rocuronium (INITIAL DOSE) 1mg/kg	110mg	120mg	130mg	140mg	150mg
Rocuronium (REPEAT DOSE) repeated X1 in 12 minutes if needed 0.1mg/kg	11mg	12mg	13mg	14mg	15mg
Sodium Bicarb 1meq/kg to a max of 100meq, may repeat at 0.5meq every 10 minutes up to 50meq	100meq	100meq	100meq	100meq	100meq
Succinylcholine 2mg/kg rapid IVP	200mg	200mg	200mg	200mg	200mg
Valium 5mg IV for active seizures may repeat as needed at 5mg every 5 minutes	5mg	5mg	5mg	5mg	5mg
Versed 5mg IVP if BP >90 systolic (give half dosage if pt >60y/o)	5mg	5mg	5mg	5mg	5mg
Versed, Intranasal for SEIZURE activity (0.2mg/kg to a max of 5mg)	5mg	5mg	5mg	5mg	5mg
Versed, Intranasal, for SEIZURE activity, REPEAT DOSAGE at 0.1mg/kg to a max of 2.5mg	2.5mg	2.5mg	2.5mg	2.5mg	2.5mg
Versed, Intranasal, for SEDATION: 0.2mg/kg to a max of 5mg. May repeat every 5-10 minutes as needed as long as SBP>90mmHg	5mg	5mg	5mg	5mg	5mg
Xopenex 1.25mg/3cc NS Nebulized may be repeated at same dose if needed	1.25mg in 3cc				
Zofran 4mg IVP	4mg	4mg	4mg	4mg	4mg
Zofran ODT (administer 1 4mg tablet by placing on tongue)	4mg	4mg	4mg	4mg	4mg

PEDIATRIC MEDICATIONS Page 1 of 4

Weight (lbs)	7.5lbs	15lbs	22lbs	33lbs	44lbs	55lbs	66lbs	77lbs	88lbs	99lbs
Weight (kg)	3.5kg	7kg	10kg	15kg	20kg	25kg	30kg	35kg	40kg	45kg
Acetaminophen (PO) NOT INDICATED FOR PEDIATRICS	Not									
- · · ·	Indicated									
IV Acetaminophen, 1,000mg in 100ml of D5W or NS. Given IV	4.5cc	9cc	15cc	22.5cc	30cc	37.5cc	45cc	52.5cc	60cc	67.5cc
infusion over 15 minutes < 1 month of age 12.5mg/kg over 15	over 15	over 15	over 15	over 15	over 15	over 15	over 15	over 15	over 15	over 15
minutes. > 1 month of age 15mg/kg over 15 minutes	minutes	minutes:								
Administer at the appropriate rate for 15 minutes and then	60gtt set:	10gtt set:								
discontinue the infusion!	18gtt/min	36gtt/min	60gtt/min	90gtt/min	120gtt/min	25gtt/min	30gtt/min	35gtt/min	40gtt/min	45gtt/min
Activated Charcoal 1g/kg up to 50g	3.5g	7g	10g	15g	20g	25gt0 mm	30g	35g	40g	45g
Adenosine 0.1mg/kg to a max of 12mg	0.4mg	0.7mg	1 mg	1.5mg	2mg	2.5mg	3mg	3.5mg	4mg	4.5mg
Amiodarone 5mg/kg rapid IV for VF/VT without a pulse may	U		U				C C			
repeat once in 3-5 minutes at 2.5mg/kg to a max of 150mg	17.5mg	35mg	50mg	75mg	100mg	125mg	150mg	150mg	150mg	150mg
Amiodarone 5mg/kg IV or IO over 20 minutes for SVT and VT	17.5mg	35-00	50mg	75mg	100mg	125mg	150mg	150mg	150mg	150mg
with a pulse to a max single dose of 150mg May repeat X 2 PRN	17.5mg	35mg	50mg	75mg	100mg	125mg	150mg	150mg	150mg	150mg
Aspirin (ASA)	Not									
	Indicated									
Atropine for Bradycardia 0.02mg/kg, minimum dose 0.1mg, max single dose 1mg may repeat in 3-5 minutes	0.1mg	0.14mg	0.2mg	0.3mg	0.4mg	0.5mg	0.6mg	0.7mg	0.8mg	0.9mg
Atropine for PAI (using Succinylcholine) 0.02mg/kg to a max of 1mg to all pts less than 16 years old	0.1mg	0.14mg	0.2mg	0.3mg	0.4mg	0.5mg	0.6mg	0.7mg	0.8mg	0.9mg
Atropine for Organophosphate Poisoning 0.05mg/kg to a max of 2mg single dose may repeat in 10-15 minutes (minimum dose 0.1mg)	0.2mg	0.4mg	0.5mg	0.8mg	1mg	1.3mg	15.mg	1.8mg	2mg	2mg
Benadryl 1mg/kg IV/IO to a max of 50mg	3.5mg	7mg	10mg	15mg	20mg	25mg	30mg	35mg	40mg	45mg
Liquid Children's Benadryl PO 1mg/kg to a max of 50mg	3.5mg	7mg	10mg	15mg	20mg	25mg	30mg	35mg	40mg	45mg
Calcium Gluconate NOT INDICATED FOR PEDIATRICS	Not Indicated									
Decadron 0.6mg/kg to a max of 20mg NOT INDICATED for children <2 years of age	2mg	4mg	бmg	9mg	12mg	15mg	18mg	20mg	20mg	20mg
Dextrose 10% (D10W): Administer IV bolus using a 60-Drop set. Titrate to LOC.	Titrate to Effect									
Dopamine 5mcg/kg/min 200mg/250mL (60-Drop Set)	1gtt/min	3gtts/min	4gtts/min	6gtts/min	8gtts/min	9gtts/min	11gtts/min	13gtts/min	15gtts/min	17gtts/min
Dopamine 10mcg/kg/min 200mg/250mL (60-Drop Set)	3gtts/min	5gtts/min	8gtts/min	11gtts/min	15gtts/min	19gtts/min	23gtts/min	26gtts/min	30gtts/min	34gtts/min
Duo-Neb, 3mg of Albuterol with 0.5mg of Ipratropium in 3cc,	3mg/0.5mg									
Nebulized (Albuterol/Ipratropium)	in 3cc									
Epi 1:1,000 for cardiac arrest ETT 0.1mg/kg to a max of 1mg per single dose	0.35mg	0.7mg	1 mg	1mg	1mg	1mg	1mg	1mg	1 mg	1mg
Epi 1:10,000 for cardiac arrest 0.01mg/kg IV or IO to a max of 1mg per single dose	0.03mg	0.07mg	0.1mg	0.15mg	0.2mg	0.25mg	0.3mg	0.35mg	0.4mg	0.45mg
Epi for Bradycardia 0.01mg/kg of 1:10,000 solution to a max of 5cc per single dose	0.03mg	0.07mg	0.1mg	0.15mg	0.2mg	0.25mg	0.3mg	0.35mg	0.4mg	0.45mg
Epi for Bradycardia via ETT 0.1mg/kg of 1:1,000 solution to a max of 0.5cc per single dose may repeat at same dose every 3-5minutes	0.35mg	0.7mg	1mg	1mg	lmg	lmg	1mg	lmg	1mg	lmg

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Weight (lbs)	7.5lbs	15lbs	22lbs	33lbs	44lbs	55lbs	66lbs	77lbs	88lbs	99lbs
Weight (kg)	3.5kg	7kg	10kg	15kg	20kg	25kg	30kg	35kg	40kg	45kg
Epi for Allergic Reactions 0.01mg/kg IV or IO of 1:10,000	0.03mg	0.07mg	0.1mg	0.15mg	0.2mg	0.25mg	0.3mg	0.35mg	0.4mg	0.45mg
solution to a max of 0.5mg		0								
Epi IM for Allergic Reactions 1:1,000 solution 0.01mg/kg to a max of 0.15mg IM	0.03mg	0.7mg	0.1mg	0.15mg						
Epinephrine DRIP, 1mg of 1:1,000 mixed in 100cc of NS at 2mcg/min (60-Drop Set)	12gtt/min	12gtt/min	12gtt/min	12gtt/min	12gtt/min	12gtt/min	12gtt/min	12gtt/min	12gtt/min	12gtt/min
Epinephrine DRIP, 1mg of 1:1,000 mixed in 100cc of NS at 4mcg/min (60-Drop Set)	24gtt/min	24gtt/min	24gtt/min	24gtt/min	24gtt/min	24gtt/min	24gtt/min	24gtt/min	24gtt/min	24gtt/min
Epinephrine DRIP, 1mg of 1:1,000 mixed in 100cc of NS at 6mcg/min (60-Drop Set)	36gtt/min	36gtt/min	36gtt/min	36gtt/min	36gtt/min	36gtt/min	36gtt/min	36gtt/min	36gtt/min	36gtt/min
Epinephrine DRIP, 1mg of 1:1,000 mixed in 100cc of NS at 8mcg/min (60-Drop Set)	48gtt/min	48gtt/min	48gtt/min	48gtt/min	48gtt/min	48gtt/min	48gtt/min	48gtt/min	48gtt/min	48gtt/min
Epinephrine DRIP, 1mg of 1:1,000 mixed in 100cc of NS at 10mcg/min (60-Drop Set)	60gtt/min	60gtt/min	60gtt/min	60gtt/min	60gtt/min	60gtt/min	60gtt/min	60gtt/min	60gtt/min	60gtt/min
Epinephrine DRIP, 1mg of 1:1,000 mixed in 250cc of NS at 2mcg/min (60-Drop Set)	30gtt/min	30gtt/min	30gtt/min	30gtt/min	30gtt/min	30gtt/min	30gtt/min	30gtt/min	30gtt/min	30gtt/min
Epinephrine DRIP, 1mg of 1:1,000 mixed in 250cc of NS at 4mcg/min (60-Drop Set)	60gtt/min	60gtt/min	60gtt/min	60gtt/min	60gtt/min	60gtt/min	60gtt/min	60gtt/min	60gtt/min	60gtt/min
Epinephrine DRIP, 1mg of 1:1,000 mixed in 250cc of NS at 6mcg/min (60-Drop Set)	90gtt/min	90gtt/min	90gtt/min	90gtt/min	90gtt/min	90gtt/min	90gtt/min	90gtt/min	90gtt/min	90gtt/min
Epinephrine DRIP, 1mg of 1:1,000 mixed in 250cc of NS at 8mcg/min (60-Drop Set)	120gtt/min	120gtt/min	120gtt/min	120gtt/min	120gtt/min	120gtt/min	120gtt/min	120gtt/min	120gtt/min	120gtt/min
Epinephrine DRIP, 1mg of 1:1,000 mixed in 250cc of NS at 10mcg/min (60-Drop Set)	150gtt/min	150gtt/min	150gtt/min	150gtt/min	150gtt/min	150gtt/min	150gtt/min	150gtt/min	150gtt/min	150gtt/min
Etomidate 0.3mg/ kg IV to a max of 40mg	1 mg	2.1mg	3mg	45mg	6mg	7.5mg	9mg	10.5mg	12mg	13.5mg
Fentanyl, IV/IO: 1-2mcg/kg slow IVP to a max of 100mcg per single dose. May repeat once (NOT indicated for children < 2 years of age)	Not Indicated	Not Indicated	Not Indicated	15-30mcg	20-40mcg	25-50mcg	30-60mcg	35-70mcg	40-80mcg	45-90mcg
Fentanyl, IN (MAD): 2mcg/kg to a max of 100mcg per dose. Do NOT administer to patients < 2 years of age	Not Indicated	Not Indicated	Not Indicated	30mcg	40mcg	50mcg	60mcg	70mcg	80mcg	90mcg
Glucagon 0.5mg IM NOT INDICATED for children <2 years of age	Not Indicated	Not Indicated	Not Indicated	0.5mg						
Ibuprofen (Liquid Children's Motrin) 10mg/kg up to 800mg	35mg	70mg	100mg	150mg	200mg	250mg	300mg	350mg	400mg	450mg
Ketamine IV Push, for Chemical Restraint: 2mg/kg (Administer slowly over 1 minute). Do NOT administer to patients < 2 years of age	Not Indicated	14mg	20mg	30mg	40mg	50mg	60mg	70mg	80mg	90mg
Ketamine IM, For Chemical Restraint for children < 5yoa: 3mg/kg in thigh. May require multiple injections as maximum of 5cc per injection may be given. Do NOT administer to an infant < 3 months old	N/A	N/A	N/A	N/A	60mg	75mg	90mg	105mg	120mg	135mg
Ketamine IM, For Chemical Restraint for children ≥ 5yoa: 5mg/kg in thigh. May require multiple injections as maximum of 5cc per injection may be given. Do NOT administer to an infant < 3 months old	Not Indicated	35mg	50mg	75mg	100mg	125mg	150mg	175mg	200mg	225mg

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Weight (lbs)	7.5lbs	15lbs	22lbs	33lbs	44lbs	55lbs	66lbs	77lbs	88lbs	99lbs
Weight (kg)	3.5kg	7kg	10kg	15kg	20kg	25kg	30kg	35kg	40kg	45kg
Ketamine for Pain Management: 0.5mg/kg SLOW IV or IO	Not Indicated	3.5mg	5mg	7.5mg	10mg	12.5mg	15mg	17.5mg	20mg	22.5mg
push to a maximum of 500mg	Not									U
Ketamine for Sedation prior to Cardioversion: 0.5mg/kg SLOW IV or IO push to a maximum of 500mg	Indicated	3.5mg	5mg	7.5mg	10mg	12.5mg	15mg	17.5mg	20mg	22.5mg
Magnesium Sulfate Loading Dose NOT INDICATED FOR	Not									
PEDIATRICS	Indicated									
Labetalol	Not Indicated									
Lidocaine for Head Injury 0.5mg/kg	2mg	4mg	5mg	8mg	10mg	13mg	15mg	18mg	20mg	23mg
Lidocaine for VT and VF with or without a pulse 2mg/kg ETT to a max of 6mg/kg	7mg	14mg	20mg	30mg	40mg	50mg	60mg	70mg	80mg	90mg
Lidocaine Drip 30mcg/kg/min for Post Resuscitation (60-Drop Set)	2gtt/min	3gtt/min	5gtt/min	7gtt/min	9gtt/min	11gtt/min	14gtt/min	16gtt/min	18gtt/min	20gtt/min
Magnesium Sulfate Maintenance Dose: NOT INDICATED FOR PEDIATRICS	Not Indicated									
Morphine 0.1mg/kg to a max of 3mg single dose	0.4mg	0.7mg	1mg	1.5mg	2mg	2.5mg	3mg	3mg	3mg	3mg
Narcan, IV: 0.1mg/kg to a max of 2mg single dose	0.35mg	0.7mg	1mg	1.5mg	2mg	2mg	2mg	2mg	2mg	2mg
Narcan, Intranasal: 0.1mg/kg to a max of 2mg single dose may repeat once if no respiratory improvement	0.35mg	0.7mg	1mg	1.5mg	2mg	2mg	2mg	2mg	2mg	2mg
Nitroglycerin, Nitro Spray	Not Indicated	Not	Not Indicated							
Norcuron 0.15mg/kg to a max of 20mg may repeat at 0.01mg/kg if needed	0.5mg	Indicated 1mg	1.5mg	2.25mg	3mg	3.75mg	4.5mg	5.25mg	6mg	6.75mg
Oral Glucose 15g between check and gum may repeat to desired effect	15g									
Racemic Epi 11.25mg in 2 cc saline solution nebulized. DO NOT give to pts >40kg	11.25mg									
Rocuronium for PAI Initial Dose 1mg/kg	3.5mg	7mg	10mg	15mg	20mg	25mg	30mg	35mg	40mg	45mg
Rocuronium for PAI Repeat Dose 0.1mg/kg if needed in 12 min.	0.35mg	0.7mg	1mg	1.5mg	2mg	2.5mg	3mg	3.5mg	4mg	4.5mg
Sodium Bicarb	Not Indicated									
Succinylcholine 2mg/kg rapid IVP	7mg	14mg	20mg	30mg	40mg	50mg	60mg	70mg	80mg	90mg
Valium 0.1mg/kg IV to a max of 5mg per dose may repeat every 5 minutes	0.4mg	0.7mg	1mg	1.5mg	2mg	2.5mg	3mg	3.5mg	4mg	4.5mg
Valium 0.5mg/kg Rectal to a max of 10mg per dose	1.8mg	3.5mg	5mg	7.5mg	10mg	10mg	10mg	10mg	10mg	10mg
Versed, IV, for Cardioversion 0.1mg/kg to a max of 2.5mg	0.4mg	0.7mg	1mg	1.5mg	2mg	2.5mg	2.5mg	2.5mg	2.5mg	2.5mg
Versed, IV, for Chemical Sedation 0.1mg/kg to a max of 10mg	0.4mg	0.7mg	1mg	1.5mg	2mg	2.5mg	3mg	3.5mg	4mg	4.5mg
Versed, IV, for Seizures 0.2mg/kg to a max of 5mg single dose, may repeat at 0.1mg/kg every 10 minutes as needed.	0.7mg	1.4mg	2mg	3mg	4mg	5mg	5mg	5mg	5mg	5mg
Versed, Intranasal for SEIZURE activity (0.2mg/kg to a max of 5mg)	0.7mg	1.4mg	2mg	3mg	4mg	5mg	5mg	5mg	5mg	5mg
Versed, Intranasal, for SEIZURE activity, REPEAT DOSAGE at 0.1mg/kg to a max of 2.5mg	0.35mg	0.7mg	1mg	1.5mg	2mg	2.5mg	2.5mg	2.5mg	2.5mg	2.5mg

PEDIATRIC MEDICATIONS Page 4 of 4

Weight (lbs)	7.5lbs	15lbs	22lbs	33lbs	44lbs	55lbs	66lbs	77lbs	88lbs	99lbs
Weight (kg)	3.5kg	7kg	10kg	15kg	20kg	25kg	30kg	35kg	40kg	45kg
Versed, Intranasal, for SEDATION: 0.2mg/kg to a max of 5mg.										
May repeat every 5-10 minutes as needed as long as	0.7mg	1.4mg	2mg	3mg	4mg	5mg	5mg	5mg	5mg	5mg
SBP>90mmHg										
Xopenex 1.25mg/3cc NS Nebulized may be repeated at same	1.25mg	1.25mg	1.25mg	1.25mg	1.25mg	1.25mg	1.25mg	1.25mg	1.25mg	1.25mg
dose if needed	1.25mg	1.2.5mg	1.25mg	1.25mg	1.2.5mg	1.2.5mg	1.25mg	1.25mg	1.25mg	1.25mg
Zofran, 0.1mg/kg IV/IO to a max of 4mg. DO NOT	Not	Not	Not	1.5mg	2mg	2.5mg	3mg	3.5mg	4mg	4ma
ADMINISTER TO PATIENT < 2 YEARS OF AGE	Indicated	Indicated	Indicated	1.5mg	2mg	2.511g	Sing	5.5mg	4mg	4mg
Zofran ODT:	Not	Not	Not		2-4mg	2-4mg				
-If > 4 YOA: 4 mg (1 tablet) placed on tongue to dissolve	Indicated	Indicated	Indicated	2mg	(1/2 to 1	(1/2 to 1	4mg	4mg	4mg	4mg
-If 2 to 4 YOA: 2mg (1/2 of 4mg tablet placed on tongue to	if < 2	if < 2	if < 2	¹∕₂ 4mg	tablet)	tablet)	(1 tablet)	(1 tablet)	(1 tablet)	(1 tablet)
dissolve.	YOA	YOA	YOA	tablet	Depending	Depending				
DO NOT ADMINISTER TO PATIENT < 2 YEARS OF AGE	TOA	IUA	TOA		on age	on age				

DRIP RATE FORMULAS

Adult Lidocaine (mg/min)

Formula:

Required dose * Volume in bag * Drip set Amount of drug in bag = Flow rate in gtts/min

Example: <u>2 mg/min * 250 mL * 60 gtts/min</u> 1000 mg = 30gtts/min

• **<u>Pediatric Lidocaine</u>** (mcg/kg/min)

Formula:

Required dose * Volume in bag * Drip set * Patient weight in kg Amount of drug in bag in mcg (mg * 1000 = mcg) = Flow rate in gtts/min

Pediatric Lidocaine example: (using a 10kg patient)

<u>30mcg/min * 250mL * 60 gtts/min * 10kg</u> 1,000,000mcg = 5gtts/min

• Dopamine (mcg/kg/min)

Formula:

Required dose * Volume in bag * Drip set * Patient weight in kg Amount of drug in bag in mcg (mg * 1000 = mcg) = Flow rate in gtts/min

Example: (using a 100kg patient) <u>5mcg/min * 250mL * 60 gtts/min * 100kg</u> 200,000mcg = 38gtts/min

Adult Amiodarone (volume/time)

(Mix 150mg of Amiodarone into 100mL of D5W)

Formula:

Volume to be infused * Drip setTime in Minutes= Flow rate in gtts/min

Example: <u>100mL * 10gtts/min</u> 10 min = 100 gtts/min

• Magnesium Sulfate (5 grams in 250cc of NS) (grm/hr)

(Mix 5 grams of Magnesium Sulfate in 250cc of NS)

Formula:

Required dose * Volume in bag * Drip setAmount of drug in bag= Flow rate in gtts/min

Example:

<u>1gm/hr (.0167gm/min) * 250 mL * 60 gtts/min</u> 5gm = 50gtts/min

<u>Magnesium Sulfate (5 grams in 500cc of NS)</u> (grm/hr) (Mix 5 grams of Magnesium Sulfate in 500cc of NS)

Formula:

Required dose * Volume in bag * Drip set Amount of drug in bag = Flow rate in gtts/min

Example:

<u>1gm/hr (.0167 gm/min) * 500 mL * 60 gtts/min</u> 5gm = 100gtts/min

Epinephrine Drip (1mg in 100cc of NS) (2mcg/min)

(Mix 1mg of Epinephrine 1:1,000 in 100cc of NS)

Formula:

Required dose * Volume in bag * Drip set Amount of drug in bag = Flow rate in gtts/min

Example:

0.002mg (2mcg/min) * 100mL * 60 gtts/min 1mg

= 12gtts/min

• Epinephrine Drip (1mg in 250cc of NS) (2mcg/min)

(Mix 1mg of Epinephrine 1:1,000 in 100cc of NS)

Formula:

Required dose * Volume in bag * Drip setAmount of drug in bag= Flow rate in gtts/min

Example:

0.002mg (2mcg/min) * 250mL * 60 gtts/min 1mg

= 30gtts/min