



ORANGE COUNTY EMERGENCY MEDICAL SERVICES
PREHOSPITAL ALS STANDING ORDERS

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7/20
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6/18/2025

PEDIATRIC MEDICATION VOLUME DOSE BY WEIGHT

Medication Concentration	Route	Dose	mLs	Medication Concentration	Normal Vital Signs				
					HR: 100-180	Respirations: 30-60	SBP: >60mmHg		
Defibrillation (2-4J/kg)	8-16 joules								
Cardioversion** (1J/kg)	4 joules								
**Adenosine (1 st dose) 3mg/mL	Rapid IV	0.4 mg	0.1 mL BHO	**Hydroxocobalamin 25mg/mL	IV	280 mg Over 15 min	11 mL BHO		
**Adenosine (2 nd dose) 3mg/mL	Rapid IV	0.8 mg	0.3 mL BHO	Lidocaine 2% 100mg/5mL	IO	2 mg	0.15 mL		
Albuterol 2.5mg/3mL	Neb	2.5 mg	3 mL	Lidocaine 2% (Cardiac arrest) 100mg/5mL	IV/IO	4 mg	0.2 mL		
Amiodarone (VF/pulseless VT) 50mg/mL	IV/IO	20 mg	0.4 mL	Midazolam (Seizure 1 st line) 5mg/mL	IM	0.8 mg	0.16 mL		
**Amiodarone (VT w/ pulse) 50mg/mL	IV	20 mg Over 10 min.	0.4 mL BHO	Midazolam (Seizure) 5mg/mL	IV/IO/IN	0.4mg	0.1 mL		
Atropine (Bradycardia) 1mg/mL	IV/IO	0.1 mg	0.1 mL	**Midazolam (Toxic delirium) 5mg/mL	IN/IV/IM	0.4 mg	0.1 mL BHO		
Atropine (Bradycardia) 0.1mg/mL	IV/IO	0.1 mg	1 mL	**Midazolam (Cardioversion) 5mg/mL	IN/IV/IM	0.4 mg	0.1 mL BHO		
Atropine (Organophosphate) 1mg/mL	IV	0.1 mg	0.1 mL	**Morphine 4mg/mL	IV carpuject	0.4 mg	0.1 mL BHO <2yrs		
Atropine (Organophosphate) 0.1mg/mL	IV	0.1 mg	1 mL	**Morphine 10mg/10mL	IV carpuject	0.4 mg	0.4 mL BHO <2yrs		
Atropine (Organophosphate) 1mg/mL	IM	0.4 mg	0.4 mL	**Morphine 10mg/mL	IM	0.4 mg	0.05 mL BHO <2yrs		
Dextrose 10% 100 mg/mL	IV		20 mL	Naloxone 0.8mg/2mL	IN/IV/IM	0.4 mg	1 mL		
Diphenhydramine 50mg/mL	IV/IO/IM	4 mg	0.1 mL	Naloxone 1mg/mL	IN/IV/IM	0.4 mg	0.4 mL		
Epinephrine (Anaphylaxis) 1mg/mL (1:1000)	IM	0.04 mg	0.04 mL	Naloxone 4mg/0.1mL	IN	Single spray			
Epinephrine (Anaphylaxis) 0.1mg/mL (1:10,000)	IV/IO	0.04 mg	0.4 mL	Normal Saline 0.9% NaCl	IV/IO	80 mL			
**Epinephrine (Push dose) 10mcg/mL	IV/IO	4 mcg	0.4 mL BHO	Normal Saline 0.9% NaCl	Neb	3 mL			
Epinephrine (Cardiac arrest) 0.1mg/mL (1:10,000)	IV/IO	0.04 mg	0.4 mL	Ondansetron 4mg	ODT	N/A			
**Fentanyl 50mcg/mL	IN/IV/IM	8 mcg	0.2 mL BHO <2 yrs	Sodium Bicarbonate 1mEq/mL 1:1 dilution with NS	IV/IO	4 mEq	4 mL		
Glucagon 1mg/mL	IM	0.5 mg	0.5 mL	Toradol (Ketorolac) 15mg/mL	IV/IO/IM	N/A			
**Base Hospital Order									
All milliliters rounded									

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Updated 06/18/2025

3-5 KG
NEWBORN

3-5 KG
NEWBORN



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PEDIATRIC MEDICATION VOLUME DOSE BY WEIGHT

Defibrillation (2-4 J/kg) Cardioversion** (1 J/kg)		12-24 joules 6 joules		Normal Vital Signs HR: 100-160 Respirations: 25-40 SBP: >70mmHg				
Medication Concentration	Route	Dose	mLs	Medication Concentration	Route	Dose	mLs	
**Adenosine (1 st dose) 3mg/mL	Rapid IV	0.6 mg	0.2 mL BHO	**Hydroxocobalamin 25mg/mL	IV	420 mg Over 15 min	17 mL BHO	
**Adenosine (2 nd dose) 3mg/mL	Rapid IV	1.2 mg	0.4 mL BHO	Lidocaine 2% 100mg/5mL	IO	3 mg	0.15 mL	
Albuterol 2.5mg/3mL	Neb	5 mg	6 mL	Lidocaine 2% (Cardiac arrest) 100mg/5mL	IV/IO	6 mg	0.3 mL	
Amiodarone (VF/pulseless VT) 50mg/mL	IV/IO	30 mg	0.6 mL	Midazolam (Seizure 1 st line) 5mg/mL	IM	1.2 mg	0.25 mL	
**Amiodarone (VT w/ pulse) 50mg/mL	IV	30 mg Over 10 min.	0.6 mL BHO	Midazolam (Seizure) 5mg/mL	IV/IO/IN	0.6 mg	0.1 mL	
Atropine (Bradycardia) 1mg/mL	IV/IO	0.14 mg	0.14 mL	**Midazolam (Toxic delirium) 5mg/mL	IN/IV/IM	0.6 mg	0.1 mL BHO	
Atropine (Bradycardia) 0.1mg/mL	IV/IO	0.14 mg	1.4 mL	**Midazolam (Cardioversion) 5mg/mL	IN/IV/IM	0.6 mg	0.1 mL BHO	
Atropine (Organophosphate) 1mg/mL	IV	0.14 mg	0.14 mL	**Morphine 4mg/mL	IV carpuject	0.6 mg	0.15 mL BHO <2yrs	
Atropine (Organophosphate) 0.1mg/mL	IV	0.14 mg	1.4 mL	**Morphine 10mg/10mL	IV carpuject	0.6 mg	0.6 mL BHO <2yrs	
Atropine (Organophosphate) 1mg/mL	IM	0.6 mg	0.6 mL	**Morphine 10mg/mL	IM	0.6 mg	0.05 mL BHO <2yrs	
Dextrose 10% 100 mg/mL	IV		30 mL	Naloxone 0.8mg/2mL	IN/IV/IM	0.6 mg	1.5 mL	
Diphenhydramine 50mg/mL	IV/IO/IM	6 mg	0.1 mL	Naloxone 1mg/mL	IN/IV/IM	0.6 mg	0.6 mL	
Epinephrine (Anaphylaxis) 1mg/mL (1:1000)	IM	0.06 mg	0.06 mL	Naloxone 4mg/0.1mL	IN	Single spray		
Epinephrine (Anaphylaxis) 0.1mg/mL (1:10,000)	IV/IO	0.06 mg	0.6 mL	Normal Saline 0.9% NaCl	IV/IO	120 mL		
**Epinephrine (Push dose) 10mcg/mL	IV	7 mcg	0.7 mL BHO	Normal Saline 0.9% NaCl	Neb	3 mL		
Epinephrine (Cardiac arrest) 0.1mg/mL (1:10,000)	IV	0.06 mg	0.6 mL	Ondansetron 4mg	ODT	N/A		
**Fentanyl 50mcg/mL	IN/IV/IM	12 mcg	0.25 mL BHO <2yrs	Sodium Bicarbonate 1mEq/mL 1:1 dilution with NS	IV/IO	6 mEq	6 mL	
Glucagon 1mg/mL	IM	0.5 mg	0.5 mL	Toradol (Ketorolac) 15mg/mL	IV/IO/IM	N/A		

**Base Hospital Order

All milliliters rounded

6-7 kg

Updated 06-18-2025

3 MONTHS

6-7 kg

Approved:

Carl Schultz, MD.

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PEDIATRIC MEDICATION VOLUME DOSE BY WEIGHT

Defibrillation (2-4 J/kg)		16-32 joules		HR: 100-160		Normal Vital Signs						
Cardioversion** (1 J/kg)		8 joules				Respirations: 20-40 SBP: >70mmHg						
Medication Concentration	Route	Dose	mLs	Medication Concentration	Route	Dose	mLs					
**Adenosine (1 st dose) 3mg/mL	Rapid IV	0.8 mg	0.3 mL BHO	**Hydroxocobalamin 25mg/mL	IV	560 mg Over 15 min	22 mL BHO					
**Adenosine (2 nd dose) 3mg/mL	Rapid IV	1.6 mg	0.5 mL BHO	Lidocaine 2% 100mg/5mL	IO	4 mg	0.2 mL					
Albuterol 2.5mg/3mL	Neb	5 mg	6 mL	Lidocaine 2% (Cardiac arrest) 100mg/5mL	IV/IO	8 mg	0.4 mL					
Amiodarone (VF/pulseless VT) 50mg/mL	IV/IO	40 mg	0.8 mL	Midazolam (Seizure 1 st line) 5mg/mL	IM	1.6 mg	0.32 mL					
**Amiodarone (VT w/ pulse) 50mg/mL	IV	40 mg Over 10 min.	0.8 mL BHO	Midazolam (Seizure) 5mg/mL	IV/IO/IN	0.8 mg	0.16 mL					
Atropine (Bradycardia) 1mg/mL	IV/IO	0.16 mg	0.16 mL	**Midazolam (Toxic delirium) 5mg/mL	IN/IV/IM	0.8 mg	0.16 mL BHO					
Atropine (Bradycardia) 0.1mg/mL	IV/IO	0.16 mg	1.6 mL	**Midazolam (Cardioversion) 5mg/mL	IN/IV/IM	0.8 mg	0.16 mL BHO					
Atropine (Organophosphate) 1mg/mL	IV	0.16 mg	0.16 mL	**Morphine 4mg/mL	IV carpuject	0.8 mg	0.2 mL BHO <2yrs					
Atropine (Organophosphate) 0.1mg/mL	IV	0.16 mg	1.6 mL	**Morphine 10mg/10mL	IV carpuject	0.8 mg	0.8 mL BHO <2yrs					
Atropine (Organophosphate) 1mg/mL	IM	0.8 mg	0.8 mL	**Morphine 10mg/mL	IM	0.8 mg	0.08 mL BHO <2yrs					
Dextrose 10% 100 mg/mL	IV		40 mL	Naloxone 0.8mg/2mL	IN/IV/IM	0.8 mg	2 mL					
Diphenhydramine 50mg/mL	IV/IO/IM	8 mg	0.15 mL	Naloxone 1mg/mL	IN/IV/IM	0.8 mg	0.8 mL					
Epinephrine (Anaphylaxis) 1mg/mL (1:1000)	IM	0.08 mg	0.08 mL	Naloxone 4mg/0.1mL	IN	Single spray						
Epinephrine (Anaphylaxis) 0.1mg/mL (1:10,000)	IV/IO	0.08 mg	0.8 mL	Normal Saline 0.9% NaCl	IV/IO	160 mL						
**Epinephrine (Push dose) 10mcg/mL	IV/IO	9 mcg	0.9 mL BHO	Normal Saline 0.9% NaCl	Neb	3 mL						
Epinephrine (Cardiac arrest) 0.1mg/mL (1:10,000)	IV/IO	0.08 mg	0.8 mL	Ondansetron 4mg	ODT	N/A						
**Fentanyl 50mcg/mL	IN/IV/IM	16 mcg	0.3 mL BHO <2yrs	Sodium Bicarbonate 1mEq/mL 1:1 dilution with NS	IV/IO	8 mEq	8 mL					
Glucagon 1mg/mL	IM	0.5 mg	0.5 mL	Toradol (Ketorolac) 15mg/mL	IV/IO/IM	N/A						
**Base Hospital Order												
All milliliters rounded												

8-9 KG

Updated 06.18.2025

6 MONTHS

8-9 KG

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PEDIATRIC MEDICATION VOLUME DOSE BY WEIGHT

Defibrillation (2-4 J/kg) Cardioversion** (1 J/kg)				20-40 joules 10 joules				Normal Vital Signs HR: 90-140 Respirations: 24-40 SBP: >80mmHg			
Medication Concentration	Route	Dose	mLs	Medication Concentration	Route	Dose	mLs				
**Adenosine (1 st dose) 3mg/mL	Rapid IV	1 mg	0.3 mL BHO	**Hydroxocobalamin 25mg/mL	IV	700 mg Over 15 min	28 mL BHO				
**Adenosine (2 nd dose) 3mg/mL	Rapid IV	2 mg	0.7 mL BHO	Lidocaine 2% 100mg/5mL	IO	5 mg	0.25 mL				
Albuterol 2.5mg/3mL	Neb	5 mg	6 mL	Lidocaine 2% (Cardiac arrest) 100mg/5mL	IV/IO	10 mg	0.5 mL				
Amiodarone (VF/pulseless VT) 50mg/mL	IV/IO	50 mg	1 mL	Midazolam (Seizure 1 st line) 5mg/mL	IM	2 mg	0.4 mL				
**Amiodarone (VT w/ pulse) 50mg/mL	IV	50 mg Over 10 min.	1 mL BHO	Midazolam (Seizure) 5mg/mL	IV/IO/IN	1 mg	0.2 mL				
Atropine (Bradycardia) 1mg/mL	IV/IO	0.2 mg	0.2 mL	**Midazolam (Toxic delirium) 5mg/mL	IN/IV/IM	1 mg	0.2 mL BHO				
Atropine (Bradycardia) 0.1mg/mL	IV/IO	0.2 mg	2 mL	**Midazolam (Cardioversion) 5mg/mL	IN/IV/IM	1 mg	0.2 mL BHO				
Atropine (Organophosphate) 1mg/mL	IV	0.2 mg	0.2 mL	**Morphine 4mg/mL	IV carpuject	1 mg	0.25 mL BHO <2yrs				
Atropine (Organophosphate) 0.1mg/mL	IV	0.2 mg	2 mL	**Morphine 10mg/10mL	IV carpuject	1 mg	1 mL BHO <2yrs				
Atropine (Organophosphate) 1mg/mL	IM	1 mg	1 mL	**Morphine 10mg/mL	IM	1 mg	0.1 mL BHO <2yrs				
Dextrose 10% 100 mg/mL	IV		50 mL	Naloxone 0.8mg/2mL	IN/IV/IM	0.8 mg	2 mL				
Diphenhydramine 50mg/mL	IV/IO/IM	10 mg	0.2 mL	Naloxone 1mg/mL	IN/IV/IM	1 mg	1 mL				
Epinephrine (Anaphylaxis) 1mg/mL (1:1000)	IM	0.1 mg	0.1 mL	Naloxone 4mg/0.1mL	IN	Single spray					
Epinephrine (Anaphylaxis) 0.1mg/mL (1:10,000)	IV/IO	0.1 mg	1 mL	Normal Saline 0.9% NaCl	IV/IO	200 mL					
**Epinephrine (Push dose) 10mcg/mL	IV/IO	10 mcg	1 mL BHO	Normal Saline 0.9% NaCl	Neb	3 mL					
Epinephrine (Cardiac arrest) 0.1mg/mL (1:10,000)	IV/IO	0.1 mg	1 mL	Ondansetron 4mg	ODT	N/A					
**Fentanyl 50mcg/mL	IN/IV/IM	20 mcg	0.4 mL BHO <2yrs	Sodium Bicarbonate 1mEq/mL	IV/IO	10 mEq	10 mL				
Glucagon 1mg/mL	IM	0.5 mg	0.5 mL	Toradol (Ketorolac) 15mg/mL	IV/IO/IM	N/A					

**Base Hospital Order

All milliliters rounded

10-11 KG
1 YEAR

Updated 06.18.2025

10-11 KG
1 YEAR

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PEDIATRIC MEDICATION VOLUME DOSE BY WEIGHT

Medication Concentration	Defibrillation (2-4 J/kg)		24-48 joules		mLs	Normal Vital Signs						
	Cardioversion** (1 J/kg)		15 joules			Medication Concentration	Route	Dose	mLs			
	Route	Dose	HR: 90-140	Respirations: 20-30								
**Adenosine (1 st dose) 3mg/mL	Rapid IV	1.2 mg	0.4 mL BHO	**Hydroxocobalamin 25mg/mL		IV	840 mg Over 15 min	34 mL BHO				
**Adenosine (2 nd dose) 3mg/mL	Rapid IV	2.4 mg	0.8 mL BHO	Lidocaine 2% 100mg/5mL		IO	6 mg	0.3 mL				
Albuterol 2.5mg/3mL	Neb	5 mg	6 mL	Lidocaine 2% (Cardiac arrest) 100mg/5mL		IV/IO	12 mg	0.6 mL				
Amiodarone (VF/pulseless VT) 50mg/mL	IV/IO	70 mg	1.4 mL	Midazolam (Seizure 1 st line) 5mg/mL		IM	2.4 mg	0.5 mL				
**Amiodarone (VT w/ pulse) 50mg/mL	IV	70 mg Over 10 min.	1.4 mL BHO	Midazolam (Seizure) 5mg/mL		IV/IO/IN	1.2 mg	0.25 mL				
Atropine (Bradycardia) 1mg/mL	IV/IO	0.24 mg	0.24 mL	**Midazolam (Toxic delirium) 5mg/mL		IN/IV/IM	1.2 mg	0.25 mL BHO				
Atropine (Bradycardia) 0.1mg/mL	IV/IO	0.24 mg	2.4 mL	**Midazolam (Cardioversion) 5mg/mL		IN/IV/IM	1.2 mg	0.25 mL BHO				
Atropine (Organophosphate) 1mg/mL	IV	0.24 mg	0.24 mL	**Morphine 4mg/mL		IV carpuject	1.2 mg	0.3 mL BHO <2 yrs				
Atropine (Organophosphate) 0.1mg/mL	IV	0.24 mg	2.4 mL	**Morphine 10mg/10mL		IV carpuject	1.2 mg	1.2 mL BHO <2 yrs				
Atropine (Organophosphate) 1mg/mL	IM	1.2 mg	1.2 mL	**Morphine 10mg/mL		IM	1.2 mg	0.12 mL BHO <2 yrs				
Dextrose 10% 100 mg/mL	IV		60 mL	Naloxone 0.8mg/2mL		IN/IV/IM	0.8 mg	2 mL				
Diphenhydramine 50mg/mL	IV/IO/IM	12 mg	0.25 mL	Naloxone 1mg/mL		IN/IV/IM	1 mg	1 mL				
Epinephrine (Anaphylaxis) 1mg/mL (1:1000)	IM	0.12 mg	0.12 mL	Naloxone 4mg/0.1mL		IN	Single spray					
Epinephrine (Anaphylaxis) 0.1mg/mL (1:10,000)	IV/IO	0.12 mg	1.2 mL	Normal Saline 0.9% NaCl		IV/IO	240 mL					
**Epinephrine (Push dose) 10mcg/mL	IV/IO	10 mcg	1 mL BHO	Normal Saline 0.9% NaCl		Neb	3 mL					
Epinephrine (Cardiac arrest) 0.1mg/mL (1:10,000)	IV/IO	0.12 mg	1.2 mL	Ondansetron 4mg		ODT	N/A					
**Fentanyl 50mcg/mL	IN/IV/IM	24 mcg	0.5 mL BHO <2 yrs	Sodium Bicarbonate 1mEq/mL		IV/IO	12 mEq	12 mL				
Glucagon 1mg/mL	IM	0.5 mg	0.5 mL	Toradol (Ketorolac) 15mg/mL		IV/IO/IM	N/A					

**Base Hospital Order

All milliliters rounded

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**12-14 KG
2 YEARS**

**12-14 KG
2 YEARS**

Updated 06.18.2025



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PEDIATRIC MEDICATION VOLUME DOSE BY WEIGHT

Defibrillation (2-4 J/kg) Cardioversion** (1 J/kg)			30-60 joules 15 joules	Normal Vital Signs				
Medication Concentration	Route	Dose	mLs	Medication Concentration	Route	Dose	mLs	
**Adenosine (1 st dose) 3mg/mL	Rapid IV	1.5 mg	0.5 mL BHO	**Hydroxocobalamin 25mg/mL	IV	1050 mg Over 15 min	42 mL BHO	
**Adenosine (2 nd dose) 3mg/mL	Rapid IV	3 mg	1 mL BHO	Lidocaine 2% 100mg/5mL	IO	7.5 mg	0.4 mL	
Albuterol 2.5mg/3mL	Neb	5 mg	6 mL	Lidocaine 2% (Cardiac arrest) 100mg/5mL	IV/IO	15 mg	0.8 mL	
Amiodarone (VF/pulseless VT) 50mg/mL	IV/IO	75 mg	1.5 mL	Midazolam (Seizure 1 st line) 5mg/mL	IM	3 mg	0.6 mL	
**Amiodarone (VT w/ pulse) 50mg/mL	IV	75 mg Over 10 min.	1.5 mL BHO	Midazolam (Seizure) 5mg/mL	IV/IO/IN	1.5 mg	0.3 mL	
Atropine (Bradycardia) 1mg/mL	IV/IO	0.3 mg	0.3 mL	**Midazolam (Toxic delirium) 5mg/mL	IN/IV/IM	1.5 mg	0.3 mL BHO	
Atropine (Bradycardia) 0.1mg/mL	IV/IO	0.3 mg	3 mL	**Midazolam (Cardioversion) 5mg/mL	IN/IV/IM	1.5 mg	0.3 mL BHO	
Atropine (Organophosphate) 1mg/mL	IV	0.3 mg	0.3 mL	Morphine 4mg/mL	IV carpuject	1.5 mg	0.4 mL	
Atropine (Organophosphate) 0.1mg/mL	IV	0.3 mg	3 mL	Morphine 10mg/10mL	IV carpuject	1.5 mg	1.5 mL	
Atropine (Organophosphate) 1mg/mL	IM	1.5 mg	1.5 mL	Morphine 10mg/mL	IM	1.5 mg	0.15mL	
Dextrose 10% 0.1mg/mL	IV		75 mL	Naloxone 0.8mg/2mL	IN/IV/IM	0.8 mg	2 mL	
Diphenhydramine 50mg/mL	IV/IO/IM	15 mg	0.3 mL	Naloxone 1mg/mL	IN/IV/IM	1 mg	1 mL	
Epinephrine (Anaphylaxis) 1mg/mL (1:1000)	IM	0.15 mg	0.15 mL	Naloxone 4mg/0.1mL	IN	Single spray		
Epinephrine (Anaphylaxis) 0.1mg/mL (1:10,000)	IV/IO	0.15 mg	1.5 mL	Normal Saline 0.9% NaCl	IV/IO	250 mL		
**Epinephrine (Push dose) 10mcg/mL	IV/IO	10 mcg	1 mL BHO	Normal Saline 0.9% NaCl	Neb	3 mL		
Epinephrine (Cardiac arrest) 0.1mg/mL (1:10,000)	IV/IO	0.15 mg	1.5 mL	Ondansetron 4mg	ODT	4 mg Age ≥4 years		
Fentanyl 50mcg/mL	IN/IV/IM	30 mcg	0.6 mL	Sodium Bicarbonate 1mEq/mL	IV/IO	15 mEq	15 mL	
Glucagon 1mg/mL	IM	0.5 mg	0.5 mL	Toradol (Ketorolac) 15mg/mL	IV/IO/IM	4.5 mg	0.3 mL	
**Base Hospital Order				All milliliters rounded				

15-18 KG
3-4 YEARS

Updated 06.18.2025

15-18 KG
3-4 YEARS

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	Defibrillation (2-4 J/kg)		40-80 joules		Normal Vital Signs			
	Cardioversion** (1 J/kg)		20 joules		HR: 70-120	Respirations: 15-30		
	Medication Concentration	Route	Dose	mLs	Medication Concentration	Route	Dose	mLs
19-23 KG 5-6 YEARS Updated 06.18.2025	**Adenosine (1 st dose) 3mg/mL	Rapid IV	2 mg	0.7 mL BHO	**Hydroxocobalamin 25mg/mL	IV	1400 mg Over 15 min	56 mL BHO
	**Adenosine (2 nd dose) 3mg/mL	Rapid IV	4 mg	1.3 mL BHO	Lidocaine 2% 100mg/5mL	IO	10 mg	0.5 mL
	Albuterol 2.5mg/3mL	Neb	5 mg	6 mL	Lidocaine 2% (Cardiac arrest) 100mg/5mL	IV/IO	20 mg	1 mL
	Amiodarone (VF/pulseless VT) 50mg/mL	IV/IO	100 mg	2 mL	Midazolam (Seizure 1 st line) 5mg/mL	IM	4 mg	0.8 mL
	**Amiodarone (VT w/ pulse) 50mg/mL	IV	100 mg Over 10 min.	2 mL BHO	Midazolam (Seizure) 5mg/mL	IV/IO/IN	2 mg	0.4 mL
	Atropine (Bradycardia) 1mg/mL	IV/IO	0.4 mg	0.4 mL	**Midazolam (Toxic delirium) 5mg/mL	IN/IV/IM	2 mg	0.4 mL BHO
	Atropine (Bradycardia) 0.1mg/mL	IV/IO	0.4 mg	4 mL	**Midazolam (Cardioversion) 5mg/mL	IN/IV/IM	2 mg	0.4 mL BHO
	Atropine (Organophosphate) 1mg/mL	IV	0.4 mg	0.4 mL	Morphine 4mg/mL	IV carpuject	2 mg	0.5 mL
	Atropine (Organophosphate) 0.1mg/mL	IV	0.4 mg	4 mL	Morphine 10mg/10mL	IV carpuject	2 mg	2 mL
	Atropine (Organophosphate) 1mg/mL	IM	2 mg	2 mL	Morphine 10mg/mL	IM	2 mg	0.2 mL
	Dextrose 10% 100 mg/mL	IV		100 mL	Naloxone 0.8mg/2mL	IN/IV/IM	0.8 mg	2 mL
	Diphenhydramine 50mg/mL	IV/IO/IM	20 mg	0.4 mL	Naloxone 1mg/mL	IN/IV/IM	1 mg	1 mL
	Epinephrine (Anaphylaxis) 1mg/mL (1:1000)	IM	0.2 mg	0.2 mL	Naloxone 4mg/0.1mL	IN	Single spray	
	Epinephrine (Anaphylaxis) 0.1mg/mL (1:10,000)	IV/IO	0.2 mg	2 mL	Normal Saline 0.9% NaCl	IV/IO	250 mL	
	**Epinephrine (Push dose) 10mcg/mL	IV/IO	10 mcg	1 mL BHO	Normal Saline 0.9% NaCl	Neb	3 mL	
	Epinephrine (Cardiac arrest) 0.1mg/mL (1:10,000)	IV/IO	0.2 mg	2 mL	Ondansetron 4mg	ODT	4 mg	
	Fentanyl 50mcg/mL	IN/IV/IM	40 mcg	0.8 mL	Sodium Bicarbonate 1mEq/mL	IV/IO	20 mEq	20 mL
	Glucagon 1mg/mL	IM	0.5 mg	0.5 mL	Toradol (Ketorolac) 15mg/mL	IV/IO/IM	5.5 mg	0.4 mL

**Base Hospital Order

All milliliters rounded

5-6 YEARS
19-23 KG

Approved:

Carl Schultz, NP

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PEDIATRIC MEDICATION VOLUME DOSE BY WEIGHT

	Defibrillation (2-4 J/kg)		50-100 joules		Medication Concentration	Normal Vital Signs						
	Cardioversion** (1 J/kg)		30 joules			Route	Dose	mLs	Medication Concentration			
	Medication Concentration	Route	Dose	mLs					Medication Concentration			
24-29 KG 7-8 YEARS Updated 06.18.2025	**Adenosine (1 st dose) 3mg/mL	Rapid IV	2.5 mg	0.85 mL BHO	**Hydroxocobalamin 25mg/mL	IV	1820 mg Over 15 min	73 mL BHO				
	**Adenosine (2 nd dose) 3mg/mL	Rapid IV	5 mg	1.7 mL BHO	Lidocaine 2% 100mg/5mL	IO	13 mg	0.65 mL				
	Albuterol 2.5mg/3mL	Neb	5 mg	6 mL	Lidocaine 2% (Cardiac arrest) 100mg/5mL	IV/IO	25 mg	1.3 mL				
	Amiodarone (VF/pulseless VT) 50mg/mL	IV/IO	125 mg	2.5 mL	Midazolam (Seizure 1 st line) 5mg/mL	IM	5 mg	1 mL				
	**Amiodarone (VT w/ pulse) 50mg/mL	IV	125 mg Over 10 min.	2.5 mL BHO	Midazolam (Seizure) 5mg/mL	IV/IO/IN	2.5 mg	0.5 mL				
	Atropine (Bradycardia) 1mg/mL	IV/IO	0.5 mg	0.5 mL	**Midazolam (Toxic delirium) 5mg/mL	IN/IV/IM	2.5 mg	0.5 mL BHO				
	Atropine (Bradycardia) 0.1mg/mL	IV/IO	0.5 mg	5 mL	**Midazolam (Cardioversion) 5mg/mL	IN/IV/IM	2.5 mg	0.5 mL BHO				
	Atropine (Organophosphate) 1mg/mL	IV	0.5 mg	0.5 mL	Morphine 4mg/mL	IV carpuject	2.5 mg	0.65 mL				
	Atropine (Organophosphate) 0.1mg/mL	IV	0.5 mg	5 mL	Morphine 10mg/10mL	IV carpuject	2.5 mg	2.5 mL				
	Atropine (Organophosphate) 1mg/mL	IM	2 mg	2 mL	Morphine 10mg/mL	IM	2.5 mg	0.25 mL				
	Dextrose 10% 100 mg/mL	IV		130 mL	Naloxone 0.8mg/2mL	IN/IV/IM	0.8 mg	2 mL				
	Diphenhydramine 50mg/mL	IV/IO/IM	25mg	0.5 mL	Naloxone 1mg/mL	IN/IV/IM	1 mg	1 mL				
	Epinephrine (Anaphylaxis) 1mg/mL (1:1000)	IM	0.25 mg	0.25 mL	Naloxone 4mg/0.1mL	IN	Single spray					
	Epinephrine (Anaphylaxis) 0.1mg/mL (1:10,000)	IV/IO	0.25 mg	2.5 mL	Normal Saline 0.9% NaCl	IV/IO	250 mL					
	**Epinephrine (Push dose) 10mcg/mL	IV/IO	10 mcg	1 mL BHO	Normal Saline 0.9% NaCl	Neb	3 mL					
	Epinephrine (Cardiac arrest) 0.1mg/mL (1:10,000)	IV/IO	0.25 mg	2.5 mL	Ondansetron 4mg	ODT	4 mg					
	Fentanyl 50mcg/mL	IN/IV/IM	50 mcg	1 mL	Sodium Bicarbonate 1mEq/mL	IV/IO	25 mEq	25 mL				
	Glucagon 1mg/mL	IM	0.5 mg	0.5 mL	Toradol (Ketorolac) 15mg/mL	IV/IO/IM	7 mg	0.5 mL				
	**Base Hospital Order					All milliliters rounded						

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PEDIATRIC MEDICATION VOLUME DOSE BY WEIGHT

Medication Concentration	Defibrillation (2-4 J/kg)		70-140 joules		Medication Concentration	Normal Vital Signs		
	Cardioversion** (1 J/kg)		30 joules			HR: 60-100	Respirations: 15-20	SBP: >90mmHg
	Route	Dose	mLs	Route	Dose	mLs		
**Adenosine (1 st dose) <i>3mg/mL</i>	Rapid IV	3.5 mg	1.2 mL BHO	**Hydroxocobalamin <i>25mg/mL</i>	IV	2380 mg <i>Over 15 min</i>	95 mL BHO	
**Adenosine (2 nd dose) <i>3mg/mL</i>	Rapid IV	7 mg	2.4 mL BHO	Lidocaine 2% <i>100mg/5mL</i>	IO	17 mg	0.85 mL	
Albuterol <i>2.5mg/3mL</i>	Neb	5 mg	6 mL	Lidocaine 2% (Cardiac arrest) <i>100mg/5mL</i>	IV/IO	35 mg	1.8 mL	
Amiodarone (VF/pulseless VT) <i>50mg/mL</i>	IV/IO	175 mg	3.5 mL	Midazolam (Seizure 1 st line) <i>5mg/mL</i>	IM	7 mg	1.4 mL	
**Amiodarone (VT w/ pulse) <i>50mg/mL</i>	IV	150 mg <i>Over 10 min.</i>	3 mL BHO	Midazolam (Seizure) <i>5mg/mL</i>	IV/IO/IN	3.5 mg	0.7 mL	
Atropine (Bradycardia) <i>1mg/mL</i>	IV/IO	0.5 mg	0.5 mL	**Midazolam (Toxic delirium) <i>5mg/mL</i>	IV/IO/IN	3.5 mg	0.7 mL BHO	
Atropine (Bradycardia) <i>0.1mg/mL</i>	IV/IO	0.5 mg	5 mL	**Midazolam (Cardioversion) <i>5mg/mL</i>	IN/IV/IM	3.5 mg	0.7 mL BHO	
Atropine (Organophosphate) <i>1mg/mL</i>	IV	0.7 mg	0.7 mL	Morphine <i>4mg/mL</i>	IV carpuject	3.5 mg	0.85 mL	
Atropine (Organophosphate) <i>0.1mg/mL</i>	IV	0.7 mg	7 mL	Morphine <i>10mg/10mL</i>	IV carpuject	3.5 mg	3.5 mL	
Atropine (Organophosphate) <i>1mg/mL</i>	IM	2 mg	2 mL	Morphine <i>10mg/mL</i>	IM	3.5 mg	0.35 mL	
Dextrose 10% <i>100 mg/mL</i>	IV		175 mL	Naloxone <i>0.8mg/2mL</i>	IN/IV/IM	0.8 mg	2 mL	
Diphenhydramine <i>50mg/mL</i>	IV/IO/IM	35 mg	0.7 mL	Naloxone <i>1mg/mL</i>	IN/IV/IM	1 mg	1 mL	
Epinephrine (Anaphylaxis) <i>1mg/mL (1:1000</i>	IM	0.35 mg	0.35 mL	Naloxone <i>4mg/0.1mL</i>	IN	Single spray		
Epinephrine (Anaphylaxis) <i>0.1mg/mL (1:10,000)</i>	IV/IO	0.3 mg	3 mL	Normal Saline <i>0.9% NaCl</i>	IV/IO	250 mL		
**Epinephrine (Push dose) <i>10mcg/mL</i>	IV/IO	10 mcg	1 mL BHO	Normal Saline <i>0.9% NaCl</i>	Neb	3 mL		
Epinephrine (Cardiac arrest) <i>0.1mg/mL (1:10,000)</i>	IV/IO	0.35 mg	3.5 mL	Ondansetron <i>4mg</i>	ODT	4 mg		
Fentanyl <i>50mcg/mL</i>	IN/IV/IM	50 mcg	1 mL	Sodium Bicarbonate <i>1mEq/mL</i>	IV/IO	35 mEq	35 mL	
Glucagon <i>1mg/mL</i>	IM	0.5 mg	0.5 mL	Toradol (Ketorolac) <i>15mg/mL</i>	IV/IO/IM	9 mg	0.6 mL	

**Base Hospital Order

All milliliters rounded

30-36 KG
9-12 YEARS

Updated 06.18.2025

30-36 KG
9-12 YEARS

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PEDIATRIC MEDICATION VOLUME DOSE BY WEIGHT

Medication Concentration	Defibrillation (2-4 J/kg)			Cardioversion** (1 J/kg)			Normal Vital Signs		
	Route	Dose	mLs	Route	Dose	mLs	HR: 60-100	Respirations: 15-20	SBP: >90mmHg
**Adenosine (1 st dose) 3mg/mL	Rapid IV	4.5 mg	1.5 mL BHO	**Hydroxocobalamin 25mg/mL	IV	3,150 mg Over 15 min	126 mL BHO		
**Adenosine (2 nd dose) 3mg/mL	Rapid IV	9 mg	3 mL BHO	Lidocaine 2% 100mg/5mL	IO	20 mg	1 mL		
Albuterol 2.5mg/3mL	Neb	5 mg	6 mL	Lidocaine 2% (Cardiac arrest) 100mg/5mL	IV/IO	45 mg	2.3 mL		
Amiodarone (VF/pulseless VT) 50mg/mL	IV/IO	225 mg	4.5 mL	Midazolam (Seizure 1 st line) 5mg/mL	IM	9 mg	1.8 mL		
**Amiodarone (VT w/ pulse) 50mg/mL	IV	150 mg Over 10 min.	3 mL BHO	Midazolam (Seizure) 5mg/mL	IV/IO/IN	4.5 mg	0.9 mL		
Atropine (Bradycardia) 1mg/mL	IV/IO	0.5 mg	0.5 mL	**Midazolam (Toxic delirium) 5mg/mL	IN/IV/IM	4.5 mg	0.9 mL BHO		
Atropine (Bradycardia) 0.1mg/mL	IV/IO	0.5 mg	5 mL	**Midazolam (Cardioversion) 5mg/mL	IN/IV/IM	4.5 mg	0.9 mL BHO		
Atropine (Organophosphate) 1mg/mL	IV	0.9 mg	0.9 mL	Morphine 4mg/mL	IV carpuject	4 mg	1 mL		
Atropine (Organophosphate) 0.1mg/mL	IV	0.9 mg	9 mL	Morphine 10mg/10mL	IV carpuject	4.5 mg	4.5 mL		
Atropine (Organophosphate) 1mg/mL	IM	2 mg	2 mL	Morphine 10mg/mL	IM	4.5 mg	0.45 mL		
Dextrose 10% 0.1mg/mL	IV		225 mL	Naloxone 0.8mg/2mL	IN/IV/IM	0.8 mg	2 mL		
Diphenhydramine 50mg/mL	IV/IO/IM	45 mg	0.9 mL	Naloxone 1mg/mL	IN/IV/IM	1 mg	1 mL		
Epinephrine (Anaphylaxis) 1mg/mL (1:1000)	IM	0.45 mg	0.45 mL	Naloxone 4mg/0.1mL	IN	Single spray			
Epinephrine (Anaphylaxis) 0.1mg/mL (1:10,000)	IV/IO	0.3 mg	3 mL	Normal Saline 0.9% NaCl	IV/IO	250 mL			
**Epinephrine (Push dose) 10mcg/mL	IV/IO	10 mcg	1 mL BHO	Normal Saline 0.9% NaCl	Neb	3 mL			
Epinephrine (Cardiac arrest) 0.1mg/mL (1:10,000)	IV/IO	0.45 mg	4.5 mL	Ondansetron 4mg	ODT	4 mg			
Fentanyl 50mcg/mL	IN/IV/IM	50 mcg	1 mL	Sodium Bicarbonate 1mEq/mL	IV/IO	45 mEq	45 mL		
Glucagon 1mg/mL	IM	0.5 mg	0.5 mL	Toradol (Ketorolac) 15mg/mL	IV/IO/IM	12.5 mg	0.8 mL		

**Base Hospital Order

All milliliters rounded

37-49 KG (too tall for Broselow)

Updated 06.18.2025

13-14 YEARS

37-49 KG (too tall for Broselow)

13-14 YEARS

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