

APPENDIX D – PEDI-Guide (Pediatric Emergency Drug & Interventions)

Purpose: To facilitate timely, safe administration of pediatric emergency medications using pre-calculated doses based on patient weight, length, or age to minimize incidence of dosing errors

Inclusion Criteria: Pediatric patients <14 years of age

Exclusion Criteria: Adult patients (≥14 years of age)

Procedure:

1. SELECT the appropriate color-coded chart (using the following hierarchy of criteria):¹
 - If patient’s weight is known, use the chart corresponding to their weight.
 - § If a patient clearly weighs >37 kg, use their actual weight if known.
 - If patient’s weight is NOT known, use a length-based resuscitation tape (e.g., Broselow tape) to identify the appropriate color-coded length zone and chart.
 - § Measure from the top of the patient’s head to their HEELS (not toes).
 - § If the patient appears overweight, consider using one color zone higher for medication dosing only (not equipment sizing).
 - § If a patient clearly weighs >37 kg, BUT actual weight is unknown, use the BLACK chart.
 - If a length-based tape is not available or can’t be used due to patient condition (e.g., respiratory distress), select the chart corresponding to the patient’s known or estimated age.
 - § For seizures or time-sensitive circumstances, first select the appropriate AGE chart. When the patient is stabilized, switch to a weight- or length-based chart.
2. VOLUME (mL) of a medication to be administered is listed in far-right, blue-shaded column.^{2,3}
3. If indicated, DILUTE the medication to achieve the correct concentration before administering.
 - Certain medications listed in bold, green font must be DILUTED before administration.
 - § Dilution instructions are on the back side of each chart.
 - For **Epinephrine** and **Norepinephrine** drips, use the dilution and administration instructions listed on the back side of each chart.
4. Use the **MEDICATION ADMINISTRATION CROSS-CHECK (MACC) PROCEDURE** for every medication dose, EVERY time!⁴

Special Considerations:

1. For newborns weighing <3kg, refer to **NEWBORN CARE CPG** and consult BioTel for guidance.
2. Most medication volumes in the PEDI-Guide are rounded to the nearest 0.1 mL for ease of administration and to be consistent with the accuracy of standard syringes. PEDI-Guide doses may vary from precise manually-calculated doses.
3. Dextrose 10% (D10W) doses have been rounded in a special way to simplify administration.
 - Doses <50 mL are rounded to the nearest 5 mL to help with dosing from a syringe.
 - Doses ≥50 mL are rounded to the nearest 25 mL to help with dosing from a bag.
4. **Be careful and alert!**
 - Medications may have different concentrations, differently sized vials, different doses for different indications, and/or different routes of administration.

GRAY	GRAY	GRAY	PINK	RED	PURPLE	YELLOW	WHITE	BLUE	ORANGE	GREEN	BLACK
< 1 mo	< 2 mo	< 3 mo	3-5 mo	6-11 mo	12-24 mo (1-2 y)	24-36 mo (2-3 y)	3-4 y	5-6 y	7-9 y	10-11 y	12-13 y
< 4 kg	< 5 kg	< 5 kg	5-8 kg	8-10 kg	10-12 kg	12-15 kg	15-19 kg	19-24 kg	24-30 kg	30-37 kg	37-50 kg
< 8.5 lb	< 11 lb	< 13 lb	13-15 lb	18-22 lb	22-26 lb	26-33 lb	33-42 lb	42-53 lb	53-64 lb	66-81 lb	81.4-110 lb

BioTel PEDI-Guide				
Weight (kg): 3.0 – 3.9		Weight (lb): 6.6 – 8.5		
Age: Less than 1 month		Length: 47 – 52 cm		
Normal Vital Signs:	HR 100 - 180	RR 30 - 60	SBP At least 60	
DEFIBRILLATION: 6 → 12 → 12 - 30 Joules		CARDIOVERSION: 3 → 6 → 12 Joules		
OPA: 50 mm; NPA: 14 Fr	Laryngoscope: 1 Straight	Fluid bolus (20 mL/kg): 60 mL IV push		
ETT: 3.0 Cuffed; Depth: 9 – 9.5 cm		King: Size 0; I-Gel: Size 1 Pink		
Newly-born infant CPR: 3:1 Ratio (Chest Compressions: Ventilations) 120 events per minute (90 compressions & 30 gentle ventilations)				
Avoid overventilation Refer to Neonatal CPG for detailed resuscitation guidelines Refer to Universal Care - Pediatric and Cardiac Arrest CPG for additional guidance				
Medication Administration				
NAME	CONCENTRATION	DOSE	ROUTE	VOLUME
Adenosine 1st Dose	3 mg/mL	0.3 mg	IV/IO	0.1 mL
Adenosine 2nd Dose	3 mg/mL	0.6 mg	IV/IO	0.2 mL
Albuterol NEB	2.5 mg/3 mL	5 mg	NEB	6 mL
Amiodarone - Arrest	50 mg/mL	15 mg	IV/IO	0.3 mL
Amiodarone - VT w/ pulse	50 mg/mL	10 mg	IV/IO	0.2 mL
Atropine - Bradycardia	0.1 mg/mL	0.05 mg	IV/IO	0.5 mL
Calcium Chloride	100 mg/mL	50 mg	IV/IO	0.5 mL slow IVP
Dexamethasone	4 mg/mL	1.6 mg	IV/IO/IM/PO	0.4 mL
Dextrose 10%	0.1 g/mL	1.5	IV/IO	15 mL slow IVP
Diphenhydramine	50 mg/mL	5 mg	IV/IO/IM	0.1 mL
Epinephrine Drip	Refer to Dilution Chart on back and contact BioTel			
Epi 1:1000 IM	1 mg/mL	0.05 mg	IM	0.05 mL
Epi 1:10,000 IV	0.1 mg/mL	0.05 mg	IV/IO	0.5 mL
Epi Auto-Injector Junior	Not applicable unless syringe-dose epi is unavailable			
Epi 1:1000 NEB	1 mg/mL	5 mg	NEB	5 mL
Fentanyl	50 mcg/mL	5 mcg	IV/IO/IM/IN	0.1 mL
Glucagon	Contact BioTel for authorization			
Glucose Gel	15 g/37.5 mL tube	0.6 g	BUCCAL	1.5 mL
Hydroxocobalamin	5 g/200 mL	312.5 mg	IV	See back
Lidocaine 2% - IO insertion	20 mg/mL	2 mg	IO	0.1 mL
Magnesium Sulfate	See Dilution Chart	120 mg	IV/IO	See back
Midazolam	10 mg/2 mL	0.5 mg	IM/IN	0.1 mL
Naloxone	1 mg/mL	0.5 mg	IV/IO/IM/IN	0.5 mL
Norepinephrine Drip	Refer to Dilution Chart on back and contact BioTel			
Sodium Bicarbonate 8.4%	1 mEq/mL	3 mEq	IV/IO	3 mL

GRAY

Less than 1 month
(6.6 – 8.5 lb)
3.0 – 3.9 kg

Medications not indicated: Ipratropium, Ondansetron

BioTel PEDI-Guide				
Medication Dilution and Drip Instructions				
All medication dilution instructions MUST use the proper START concentration to be accurate!				
MEDICATION NAME	INDICATION (ROUTE)	DILUTION RECIPE	ADMINISTRATION INSTRUCTIONS	
GRAY	Epinephrine Drip	Start concentration: 0.1 mg/mL End concentration: 4 mcg/mL • Add 10 mL (1 mg) to 250 mL NS. • Use 60 gtt/mL set. • Call 780 for IV pump. • Contact BioTel.	0.1 mcg/kg/min: 5 gtt/min 0.2 mcg/kg/min: 9 gtt/min 0.3 mcg/kg/min: 14 gtt/min 0.4 mcg/kg/min: 18 gtt/min 0.5 mcg/kg/min: 23 gtt/min 0.6 mcg/kg/min: 27 gtt/min 0.7 mcg/kg/min: 32 gtt/min 0.8 mcg/kg/min: 36 gtt/min 0.9 mcg/kg/min: 41 gtt/min 1.0 mcg/kg/min: 45 gtt/min	
	Norepinephrine Drip	Start concentration: 2 mg/2 mL End concentration: 4 mcg/mL • Add 1 mL (1 mg) to 250 mL NS. • Use 60 gtt/mL set. • Call 780 for IV pump. • Contact BioTel.	0.1 mcg/kg/min: 5 gtt/min 0.2 mcg/kg/min: 9 gtt/min 0.3 mcg/kg/min: 14 gtt/min 0.4 mcg/kg/min: 18 gtt/min 0.5 mcg/kg/min: 23 gtt/min 0.6 mcg/kg/min: 27 gtt/min 0.7 mcg/kg/min: 32 gtt/min 0.8 mcg/kg/min: 36 gtt/min 0.9 mcg/kg/min: 41 gtt/min 1.0 mcg/kg/min: 45 gtt/min	
	Hydroxocobalamin	IV/IO		• Run 15 gtt/min for 15 min (1/16 vial or 12.5 mL). • Use 20 gtt/mL set in kit. • Set timer!
	Magnesium Sulfate	TdP w/ pulse (IV/IO)	Start concentration: 5 mg/10 mL End concentration: 10 mg/mL • Add 2 mL (1 g) to 100 mL NS.	• Run 48 gtt/min (12 mL) for 15 min. • Use 60 gtt/mL set. • Set timer!
	Magnesium Sulfate	Pulseless TdP (IV/IO)	Start concentration: 5 mg/10 mL End concentration: 50 mg/mL • Waste 1 mL from 10-mL NS flush. • Replace with 1 mL (0.5 g) mag sulfate.	• Push 2.4 mL SLOWLY over 2 min.

Less than 1 month

(6.6 – 8.5 lb)

3.0 – 3.9 kg

BioTel PEDI-Guide				
Weight (kg): 4.0 – 4.9		Weight (lb): 8.6 – 10.8		
Age: Less than 2 months		Length: 52 – 55 cm		
Normal Vital Signs:	HR 100 - 180	RR 30 - 60	SBP at least 60	
DEFIBRILLATION: 8 → 16 → 16 - 40 Joules		CARDIOVERSION: 4 → 8 → 16 Joules		
OPA: 50 mm; NPA: 14 Fr	Laryngoscope: 1 Straight	Fluid bolus (20 mL/kg): 80 mL IV push		
ETT: 3.0 Cuffed; Depth: 9.5 – 10 cm		King: Size 0; I-Gel: Size 1 Pink		
Newly-born infant CPR: 3:1 Ratio (Chest Compressions: Ventilations) 120 events per minute (90 compressions & 30 gentle ventilations)				
Avoid overventilation Refer to Neonatal CPG for detailed resuscitation guidelines Refer to Universal Care - Pediatric and Cardiac Arrest CPG for additional guidance				
Medication Administration				
NAME	CONCENTRATION	DOSE	ROUTE	VOLUME
Adenosine 1st Dose	3 mg/mL	0.3 mg	IV/IO	0.1 mL
Adenosine 2nd Dose	3 mg/mL	0.6 mg	IV/IO	0.2 mL
Albuterol NEB	2.5 mg/3 mL	5 mg	NEB	6 mL
Amiodarone - Arrest	50 mg/mL	20 mg	IV/IO	0.4 mL
Amiodarone - VT w/ pulse	50 mg/mL	10 mg	IV/IO	0.2 mL
Atropine - Bradycardia	0.1 mg/mL	0.1 mg	IV/IO	1 mL
Calcium Chloride	100 mg/mL	100 mg	IV/IO	1 mL slow IVP
Dexamethasone	4 mg/mL	2 mg	IV/IO/IM/PO	0.5 mL
Dextrose 10%	0.1 g/mL	1.5 g	IV/IO	15 mL slow IVP
Diphenhydramine	50 mg/mL	5 mg	IV/IO/IM	0.1 mL
Epinephrine Drip	Refer to Dilution Chart on back and contact BioTel			
Epi 1:1000 IM	1 mg/mL	0.05 mg	IM	0.05 mL
Epi 1:10,000 IV	0.1 mg/mL	0.05 mg	IV/IO	0.5 mL
Epi Auto-Injector Junior	Not applicable unless syringe-dose epi is unavailable			
Epi 1:1000 NEB	1 mg/mL	5 mg	NEB	5 mL
Fentanyl	50 mcg/mL	5 mcg	IV/IO/IM/IN	0.1 mL
Glucagon	1 mg/mL	0.5 mg	IV/IO/IM/IN	0.5 mL
Glucose Gel	15 g/37.5 mL tube	2 g	BUCCAL	5 mL
Hydroxocobalamin	5 g/200 mL	312.5 mg	IV	See back
Lidocaine 2% - IO insertion	20 mg/mL	2 mg	IO	0.2 mL
Magnesium Sulfate	See Dilution Chart	160 mg	IV/IO	See back
Midazolam	10 mg/2 mL	1 mg	IM/IN	0.2 mL
Naloxone	1 mg/mL	0.5 mg	IV/IO/IM/IN	0.5 mL
Norepinephrine Drip	Refer to Dilution Chart on back and contact BioTel			
Sodium Bicarbonate 8.4%	1 mEq/mL	4 mEq	IV/IO	4 mL

GRAY

Less than 2 months

(8.6 – 10.8 lb)

4.0 – 4.9 kg

Medications not indicated: Ipratropium, Ondansetron

BioTel PEDI-Guide				
Medication Dilution and Drip Instructions				
All medication dilution instructions MUST use the proper START concentration to be accurate!				
MEDICATION NAME	INDICATION (ROUTE)	DILUTION RECIPE	ADMINISTRATION INSTRUCTIONS	
GRAY	Epinephrine Drip	Start concentration: 0.1 mg/mL End concentration: 4 mcg/mL • Add 10 mL (1 mg) to 250 mL NS. • Use 60 gtt/mL set. • Call 780 for IV pump. • Contact BioTel.	0.1 mcg/kg/min: 6 gtt/min 0.2 mcg/kg/min: 12 gtt/min 0.3 mcg/kg/min: 18 gtt/min 0.4 mcg/kg/min: 24 gtt/min 0.5 mcg/kg/min: 30 gtt/min 0.6 mcg/kg/min: 36 gtt/min 0.7 mcg/kg/min: 42 gtt/min 0.8 mcg/kg/min: 48 gtt/min 0.9 mcg/kg/min: 54 gtt/min 1.0 mcg/kg/min: 60 gtt/min	
	Norepinephrine Drip	Start concentration: 2 mg/2 mL End concentration: 4 mcg/mL • Add 1 mL (1 mg) to 250 mL NS. • Use 60 gtt/mL set. • Call 780 for IV pump. • Contact BioTel.	0.1 mcg/kg/min: 6 gtt/min 0.2 mcg/kg/min: 12 gtt/min 0.3 mcg/kg/min: 18 gtt/min 0.4 mcg/kg/min: 24 gtt/min 0.5 mcg/kg/min: 30 gtt/min 0.6 mcg/kg/min: 36 gtt/min 0.7 mcg/kg/min: 42 gtt/min 0.8 mcg/kg/min: 48 gtt/min 0.9 mcg/kg/min: 54 gtt/min 1.0 mcg/kg/min: 60 gtt/min	
	Hydroxocobalamin	IV/IO		• Run 15 gtt/min for 15 min (1/16 vial or 12.5 mL). • Use 20 gtt/mL set in kit. • Set timer!
	Magnesium Sulfate	TdP w/ pulse (IV/IO)	Start concentration: 5 mg/10 mL End concentration: 10 mg/mL • Add 2 mL (1 g) to 100 mL NS.	• Run 64 gtt/min (16 mL) for 15 min. • Use 60 gtt/mL set. • Set timer!
	Magnesium Sulfate	Pulseless TdP (IV/IO)	Start concentration: 5 mg/10 mL End concentration: 50 mg/mL • Waste 1 mL from 10-mL NS flush. • Replace with 1 mL (0.5 g) mag sulfate.	• Push 3.2 mL SLOWLY over 2 min.

Less than 2 months

(8.6 – 10.8 lb)

4.0 – 4.9 kg

BioTel PEDI-Guide				
Weight (kg): 5.0 – 5.9		Weight (lb): 11 – 13		
Age: Less than 3 months		Length: 55 – 58 cm		
Normal Vital Signs:	HR 100 - 180	RR 30 - 60	SBP At least 60	
DEFIBRILLATION: 10 → 20 → 20 - 50 Joules		CARDIOVERSION: 5 → 10 → 20 Joules		
OPA: 50 mm; NPA: 14 Fr	Laryngoscope: 1 Straight	Fluid bolus (20 mL/kg): 100 mL		
ETT: 3.0 Cuffed; Depth: 10 – 10.5 cm		King: Size 1 White; I-Gel: Size 1.5 Blue		
2-Rescuer Infant CPR: 15:2 Ratio (Chest Compressions: Ventilations)				
Compression Rate: 100 – 120/minute; Pause for breaths				
Avoid overventilation				
Refer to Universal Care - Pediatric and Cardiac Arrest CPG for additional guidance				
Medication Administration				
NAME	CONCENTRATION	DOSE	ROUTE	VOLUME
Adenosine 1st Dose	3 mg/mL	0.6 mg	IV/IO	0.2 mL
Adenosine 2nd Dose	3 mg/mL	1.2 mg	IV/IO	0.4 mL
Albuterol NEB	2.5 mg/3 mL	5 mg	NEB	6 mL
Amiodarone - Arrest	50 mg/mL	25 mg	IV/IO	0.5 mL
Amiodarone - VT w/ pulse	50 mg/mL	15 mg	IV/IO	0.3 mL
Atropine - Bradycardia	0.1 mg/mL	0.1 mg	IV/IO	1 mL
Calcium Chloride	100 mg/mL	100 mg	IV/IO	1 mL slow IVP
Dexamethasone	4 mg/mL	2.8 mg	IV/IO/IM/PO	0.7 mL
Dextrose 10%	0.1 g/mL	2 g	IV/IO	20 mL slow IVP
Diphenhydramine	50 mg/mL	5 mg	IV/IO/IM	0.1 mL
Epinephrine Drip	Refer to Dilution Chart on back and contact BioTel			
Epi 1:1000 IM	1 mg/mL	0.05 mg	IM	0.05 mL
Epi 1:10,000 IV	0.1 mg/mL	0.05 mg	IV/IO	0.5 mL
Epi Auto-Injector Junior	Not applicable unless syringe-dose epi is unavailable			
Epi 1:1000 NEB	1 mg/mL	5 mg	NEB	5 mL
Fentanyl	50 mcg/mL	5 mcg	IV/IO/IM/IN	0.1 mL
Glucagon	1 mg/mL	0.5 mg	IV/IO/IM/IN	0.5 mL
Glucose Gel	15 g/37.5 mL tube	2 g	BUCCAL	5 mL
Hydroxocobalamin	5 g/200 mL	312.5 mg	IV	See back
Lidocaine 2% - IO insertion	20 mg/mL	2 mg	IO	0.1 mL
Magnesium Sulfate	See Dilution Chart	200 mg	IV/IO	See back
Midazolam	10 mg/2 mL	1 mg	IM/IN	0.2 mL
Naloxone	1 mg/mL	0.5 mg	IV/IO/IM/IN	0.5 mL
Norepinephrine Drip	Refer to Dilution Chart on back and contact BioTel			
Sodium Bicarbonate 8.4%	1 mEq/mL	5 mEq	IV/IO	5 mL

GRAY

Less than 3 months

(11 – 13 lb)

5.0 – 5.9 kg

Medications not indicated: Ipratropium, Ondansetron

BioTel PEDI-Guide				
Medication Dilution and Drip Instructions				
All medication dilution instructions MUST use the proper START concentration to be accurate!				
MEDICATION NAME	INDICATION (ROUTE)	DILUTION RECIPE	ADMINISTRATION INSTRUCTIONS	
GRAY	Epinephrine Drip	Start concentration: 0.1 mg/mL End concentration: 4 mcg/mL • Add 10 mL (1 mg) to 250 mL NS. • Use 60 gtt/mL set. • Call 780 for IV pump. • Contact BioTel.	0.1 mcg/kg/min: 8 gtt/min 0.2 mcg/kg/min: 15 gtt/min 0.3 mcg/kg/min: 23 gtt/min 0.4 mcg/kg/min: 30 gtt/min 0.5 mcg/kg/min: 38 gtt/min 0.6 mcg/kg/min: 45 gtt/min 0.7 mcg/kg/min: 53 gtt/min 0.8 mcg/kg/min: 60 gtt/min 0.9 mcg/kg/min: 68 gtt/min 1.0 mcg/kg/min: 75 gtt/min	
	Norepinephrine Drip	Start concentration: 2 mg/2 mL End concentration: 4 mcg/mL • Add 1 mL (1 mg) to 250 mL NS. • Use 60 gtt/mL set. • Call 780 for IV pump. • Contact BioTel.	0.1 mcg/kg/min: 8 gtt/min 0.2 mcg/kg/min: 15 gtt/min 0.3 mcg/kg/min: 23 gtt/min 0.4 mcg/kg/min: 30 gtt/min 0.5 mcg/kg/min: 38 gtt/min 0.6 mcg/kg/min: 45 gtt/min 0.7 mcg/kg/min: 53 gtt/min 0.8 mcg/kg/min: 60 gtt/min 0.9 mcg/kg/min: 68 gtt/min 1.0 mcg/kg/min: 75 gtt/min	
	Hydroxocobalamin	IV/IO		• Run 15 gtt/min for 15 min (1/16 vial or 12.5 mL). • Use 20 gtt/mL set in kit. • Set timer!
	Magnesium Sulfate	TdP w/ pulse (IV/IO)	Start concentration: 5 mg/10 mL End concentration: 10 mg/mL • Add 2 mL (1 g) to 100 mL NS.	• Run 80 gtt/min (20) for 15 min. • Use 60 gtt/mL set. • Set timer!
	Magnesium Sulfate	Pulseless TdP (IV/IO)	Start concentration: 5 mg/10 mL End concentration: 50 mg/mL • Waste 1 mL from 10-mL NS flush. • Replace with 1 mL (0.5 g) mag sulfate.	• Push 4 mL SLOWLY over 2 min.

Less than 3 months

(11 – 13 lb)

5.0 – 5.9 kg

BioTel PEDI-Guide				
Weight (kg): 6.0 – 7.9		Weight (lb): 13.2 – 15.4		
Age: 3 – 5 months		Length: 59 – 67 cm		
Normal Vital Signs:	HR 100 - 180	RR 30 - 45	SBP At least 70	
DEFIBRILLATION: 13 → 26 → 26 - 60 Joules		CARDIOVERSION: 7 → 13 → 26 Joules		
OPA: 50 mm; NPA: 14 Fr	Laryngoscope: 1 Straight	Fluid Bolus (20 mL/kg): 150 mL		
ETT: 3.0 Cuffed; Depth: 10 – 10.5 cm		King: Size 1 White; I-Gel: Size 1.5 Blue		
Medication Administration				
NAME	CONCENTRATION	DOSE	ROUTE	VOLUME
Adenosine 1st dose	3 mg/mL	0.6 mg	IV/IO	0.2 mL
Adenosine 2nd dose	3 mg/mL	1.2 mg	IV/IO	0.4 mL
Albuterol NEB	2.5 mg/3 mL	5 mg	NEB	6 mL
Amiodarone - Arrest	50 mg/mL	35 mg	IV/IO	0.7 mL
Amiodarone - VT w/ pulse	50 mg/mL	20 mg	IV/IO	0.4 mL
Atropine - Bradycardia	0.1 mg/mL	0.15 mg	IV/IO	1.5 mL
Calcium Chloride	100 mg/mL	150 mg	IV/IO	1.5 mL slow IVP
Dexamethasone	4 mg/mL	3.6 mg	IV/IO/IM/PO	0.9 mL
Dextrose 10%	0.1 g/mL	3 g	IV/IO	30 mL slow IVP
Diphenhydramine	50 mg/mL	5 mg	IV/IO/IM	0.1 mL
Epinephrine Drip	Refer to Dilution Chart on back and contact BioTel			
Epi 1:1000 IM	1 mg/mL	0.1 mg	IM	0.1 mL
Epi 1:10,000 IV	0.1 mg/mL	0.1 mg	IV/IO	1 mL
Epi Auto-Injector Junior		0.15 mg	IM	Up to 3 units
Epi 1:1000 NEB	1 mg/mL	5 mg	NEB	5 mL
Fentanyl	50 mcg/mL	10 mcg	IV/IO/IM/IN	0.2 mL
Glucagon	1 mg/mL	0.5 mg	IV/IO/IM/IN	0.5 mL
Glucose Gel	15 g/37.5 mL tube	2 g	BUCCAL	5 mL
Hydroxocobalamin	5 g/200 mL	625 mg	IV	See back
Lidocaine 2% -IO insertion	20 mg/mL	4 mg	IO	0.2 mL
Magnesium Sulfate	See Dilution Chart	280 mg	IV/IO	See back
Midazolam	10 mg/2 mL	1.25 mg	IM/IN	0.25 mL
Naloxone	1 mg/mL	1 mg	IV/IO/IM/IN	1 mL
Norepinephrine Drip	Refer to Dilution Chart on back and contact BioTel			
Sodium Bicarbonate 8.4%	1 mEq/mL	7 mEq	IV/IO	7 mL

PINK

3 – 5 months
(13.2 – 15.4 lb)
6 – 7.9 kg

Medications not indicated: Ipratropium, Ondansetron

BioTel PEDI-Guide				
Medication Dilution and Drip Instructions				
All medication dilution instructions MUST use the proper START concentration to be accurate!				
MEDICATION NAME	INDICATION (ROUTE)	DILUTION RECIPE	ADMINISTRATION INSTRUCTIONS	
PINK	Epinephrine Drip	Start concentration: 0.1 mg/mL End concentration: 4 mcg/mL • Add 10 mL (1 mg) to 250 mL NS. • Use 60 gtt/mL set. • Call 780 for IV pump. • Contact BioTel.	0.1 mcg/kg/min: 11 gtt/min 0.2 mcg/kg/min: 21 gtt/min 0.3 mcg/kg/min: 32 gtt/min 0.4 mcg/kg/min: 42 gtt/min 0.5 mcg/kg/min: 53 gtt/min 0.6 mcg/kg/min: 63 gtt/min 0.7 mcg/kg/min: 74 gtt/min 0.8 mcg/kg/min: 84 gtt/min 0.9 mcg/kg/min: 95 gtt/min 1.0 mcg/kg/min: 105 gtt/min	
	Norepinephrine Drip	Start concentration: 2 mg/2 mL End concentration: 4 mcg/mL • Add 1 mL (1 mg) to 250 mL NS. • Use 60 gtt/mL set. • Call 780 for IV pump. • Contact BioTel.	0.1 mcg/kg/min: 11 gtt/min 0.2 mcg/kg/min: 21 gtt/min 0.3 mcg/kg/min: 32 gtt/min 0.4 mcg/kg/min: 42 gtt/min 0.5 mcg/kg/min: 53 gtt/min 0.6 mcg/kg/min: 63 gtt/min 0.7 mcg/kg/min: 74 gtt/min 0.8 mcg/kg/min: 84 gtt/min 0.9 mcg/kg/min: 95 gtt/min 1.0 mcg/kg/min: 105 gtt/min	
	Hydroxocobalamin	IV/IO		• Run 30 gtt/min for 15 min (1/8 vial or 25 mL). • Use 20 gtt/mL set in kit. • Set timer!
	Magnesium Sulfate	TdP w/ pulse (IV/IO)	Start concentration: 5 mg/10 mL End concentration: 10 mg/mL • Add 2 mL (1 g) to 100 mL NS.	• Run 112 gtt/min (28 mL) for 15 min. • Use 60 gtt/mL set. • Set timer!
	Pulseless TdP (IV/IO)	Start concentration: 5 mg/10 mL End concentration: 50 mg/mL • Waste 1 mL from 10-mL NS flush. • Replace with 1 mL (0.5 g) mag sulfate.	• Push 5.6 mL SLOWLY over 2 min.	

3 – 5 months
(13.2 – 15.4 lb)
6 – 7.9 kg

BioTel PEDI-Guide				
Weight (kg): 8 – 9.9		Weight (lb): 17.6 – 21.8		
Age: 6 – 11 months		Length: 67.7 – 74.5 cm		
Normal Vital Signs:	HR 100 - 180	RR 30 - 45	SBP At least 70	
DEFIBRILLATION: 15 → 30 → 30 - 80 Joules		CARDIOVERSION: 8 → 16 → 30 Joules		
OPA: 50 mm; NPA: 14 Fr	Laryngoscope: 1 Straight	Fluid Bolus (20 mL/kg): 200 mL		
ETT: 3.0 Cuffed; Depth: 10.5 – 11 cm		King: Size 1 White; I-Gel: Size 1.5 Blue		
Medication Administration				
NAME	CONCENTRATION	DOSE	ROUTE	VOLUME
Adenosine 1st dose	3 mg/mL	0.9 mg	IV/IO	0.3 mL
Adenosine 2nd dose	3 mg/mL	1.8 mg	IV/IO	0.6 mL
Albuterol NEB	2.5 mg/3 mL	5 mg	NEB	6 mL
Amiodarone - Arrest	50 mg/mL	45 mg	IV/IO	0.9 mL
Amiodarone - VT w/ pulse	50 mg/mL	25 mg	IV/IO	0.5 mL
Atropine - Bradycardia	0.1 mg/mL	0.2 mg	IV/IO	2 mL
Calcium Chloride	100 mg/mL	200 mg	IV/IO	2 mL slow IVP
Dexamethasone	4 mg/mL	4 mg	IV/IO/IM/PO	1 mL
Dextrose 10%	0.1 g/mL	3.5 g	IV/IO	35 mL slow IVP
Diphenhydramine	50 mg/mL	10 mg	IV/IO/IM	0.2 mL
Epinephrine Drip	Refer to Dilution Chart on back and contact BioTel			
Epi 1:1000 IM	1 mg/mL	0.1 mg	IM	0.1 mL
Epi 1:10,000 IV	0.1 mg/mL	0.1 mg	IV/IO	1 mL
Epi Auto-Injector Junior		0.15 mg	IM	Up to 3 units
Epi 1:1000 NEB	1 mg/mL	5 mg	NEB	5 mL
Fentanyl	50 mcg/mL	10 mcg	IV/IO/IM/IN	0.2 mL
Glucagon	1 mg/mL	0.5 mg	IV/IO/IM/IN	0.5 mL
Glucose Gel	15 g/37.5 mL tube	2 g	BUCCAL	5 mL
Hydroxocobalamin	5 g/200 mL	625 mg	IV	See back
Lidocaine 2% - IO insertion	20 mg/mL	4 mg	IO	0.2 mL
Magnesium Sulfate	See Dilution Chart	360 mg	IV/IO	See back
Midazolam	10 mg/2 mL	1.25 mg	IM/IN	0.25 mL
Naloxone	1 mg/mL	1 mg	IV/IO/IM/IN	1 mL
Norepinephrine Drip	Refer to Dilution Chart on back and contact BioTel			
Sodium Bicarbonate 8.4%	1 mEq/mL	10 mEq	IV/IO	10 mL

RED

6 – 11 months

(17.6 – 21.8 lb)

8 – 9.9 kg

Medications not indicated: Ipratropium, Ondansetron

BioTel PEDI-Guide				
Medication Dilution and Drip Instructions				
All medication dilution instructions MUST use the proper START concentration to be accurate!				
MEDICATION NAME	INDICATION (ROUTE)	DILUTION RECIPE	ADMINISTRATION INSTRUCTIONS	
RED	Epinephrine Drip	Start concentration: 0.1 mg/mL End concentration: 4 mcg/mL • Add 10 mL (1 mg) to 250 mL NS. • Use 60 gtt/mL set. • Call 780 for IV pump. • Contact BioTel.	0.1 mcg/kg/min: 14 gtt/min 0.2 mcg/kg/min: 27 gtt/min 0.3 mcg/kg/min: 41 gtt/min 0.4 mcg/kg/min: 54 gtt/min 0.5 mcg/kg/min: 68 gtt/min 0.6 mcg/kg/min: 81 gtt/min 0.7 mcg/kg/min: 97 gtt/min 0.8 mcg/kg/min: 108 gtt/min 0.9 mcg/kg/min: 122 gtt/min 1.0 mcg/kg/min: 135 gtt/min	
	Norepinephrine Drip	Start concentration: 2 mg/2 mL End concentration: 4 mcg/mL • Add 1 mL (1 mg) to 250 mL NS. • Use 60 gtt/mL set. • Call 780 for IV pump. • Contact BioTel.	0.1 mcg/kg/min: 14 gtt/min 0.2 mcg/kg/min: 27 gtt/min 0.3 mcg/kg/min: 41 gtt/min 0.4 mcg/kg/min: 54 gtt/min 0.5 mcg/kg/min: 68 gtt/min 0.6 mcg/kg/min: 81 gtt/min 0.7 mcg/kg/min: 97 gtt/min 0.8 mcg/kg/min: 108 gtt/min 0.9 mcg/kg/min: 122 gtt/min 1.0 mcg/kg/min: 135 gtt/min	
	Hydroxocobalamin	IV/IO		• Run 30 gtt/min for 15 min (1/8 vial or 25 mL). • Use 20 gtt/mL set in kit. • Set timer!
	Magnesium Sulfate	TdP w/ pulse (IV/IO)	Start concentration: 5 mg/10 mL End concentration: 10 mg/mL • Add 2 mL (1 g) to 100 mL NS.	• Run 144 gtt/min (36 mL) for 15 min. • Use 60 gtt/mL set. • Set timer!
	Pulseless TdP (IV/IO)	Start concentration: 5 mg/10 mL End concentration: 50 mg/mL • Waste 1 mL from 10-mL NS flush. • Replace with 1 mL (0.5 g) mag sulfate.	• Push 7.2 mL SLOWLY over 2 min.	

6 – 11 months

(17.6 – 21.8 lb)

8 – 9.9 kg

BioTel PEDI-Guide				
Weight (kg): 10 – 11.9		Weight (lb): 22 – 26		
Age: 12 – 23 months		Length: 74.5 – 84 cm		
Normal Vital Signs:	HR 80 - 150	RR 25- 40	SBP At least 75	
DEFIBRILLATION: 20 → 40 → 40 - 100 Joules		CARDIOVERSION: 10 → 20 → 40 Joules		
OPA: 60 mm; NPA: 18 Fr	Laryngoscope: 1 Straight	Fluid Bolus (20 mL/kg): 200 mL		
ETT: 3.5 Cuffed; Depth: 11 – 12 cm		King: Size 1 White; I-Gel: Size 2 Gray		
Medication Administration				
NAME	CONCENTRATION	DOSE	ROUTE	VOLUME
Adenosine 1st dose	3 mg/mL	1.2 mg	IV/IO	0.4 mL
Adenosine 2nd dose	3 mg/mL	2.4 mg	IV/IO	0.8 mL
Albuterol NEB	2.5 mg/3 mL	5 mg	NEB	6 mL
Amiodarone - Arrest	50 mg/mL	50 mg	IV/IO	1 mL
Amiodarone - VT w/ pulse	50 mg/mL	25 mg	IV/IO	0.5 mL
Atropine - Bradycardia	0.1 mg/mL	0.2 mg	IV/IO	2 mL
Calcium Chloride	100 mg/mL	200 mg	IV/IO	2 mL slow IVP
Dexamethasone	4 mg/mL	5.6 mg	IV/IO/IM/PO	1.4 mL
Dextrose 10%	0.1 g/mL	4.5 g	IV/IO	45 mL slow IVP
Diphenhydramine	50 mg/mL	10 mg	IV/IO/IM	0.2 mL
Epinephrine Drip	Refer to Dilution Chart on back and contact BioTel			
Epi 1:1000 IM	1 mg/mL	0.1 mg	IM	0.1 mL
Epi 1:10,000 IV	0.1 mg/mL	0.1 mg	IV/IO	1 mL
Epi Auto-Injector Junior		0.15 mg	IM	Up to 3 units
Epi 1:1000 NEB	1 mg/mL	5 mg	NEB	5 mL
Fentanyl	50 mcg/mL	10 mcg	IV/IO/IM/IN	0.2 mL
Glucagon - Hypoglycemia	1 mg/mL	0.5 mg	IV/IO/IM/IN	0.5 mL
Glucose Gel	15 g/37.5 mL tube	3 g	BUCCAL	7.5 mL
Hydroxocobalamin	5 g/200 mL	625 mg	IV	See back
Ipratropium	0.5 mg/2.5 mL	0.5 mg	NEB	2.5 mL
Lidocaine 2% - IO insertion	20 mg/mL	6 mg	IO	0.3 mL
Magnesium Sulfate	See Dilution Chart	440 mg	IV/IO	See back
Midazolam (12-16 mo)	10 mg/2 mL	1.25 mg	IM/IN	0.25 mL
Midazolam (17-23 mo)	10 mg/2 mL	2.5 mg	IM/IN	0.5 mL
Naloxone	1 mg/mL	1 mg	IV/IO/IM/IN	1 mL
Norepinephrine Drip	Refer to Dilution Chart on back and contact BioTel			
Sodium Bicarbonate 8.4%	1 mEq/mL	10 mEq	IV/IO	10 mL

PURPLE

12 – 23 months

(22 – 26 lb)

10 – 11.9 kg

BioTel PEDI-Guide			
Medication Dilution and Drip Instructions			
All medication dilution instructions MUST use the proper START concentration to be accurate!			
MEDICATION NAME	INDICATION (ROUTE)	DILUTION RECIPE	ADMINISTRATION INSTRUCTIONS
Epinephrine Drip	IV/IO	Start concentration: 0.1 mg/mL End concentration: 4 mcg/mL • Add 10 mL (1 mg) to 250 mL NS. • Use 60 gtt/mL set. • Call 780 for IV pump. • Contact BioTel.	2 mcg/min: 30 gtt/min 4 mcg/min: 60 gtt/min 6 mcg /min: 90 gtt/min 8 mcg/min: 120 gtt/min 10 mcg/min: 150 gtt/min
Norepinephrine Drip	IV/IO	Start concentration: 2 mg/2 mL End concentration: 4 mcg/mL • Add 1 mL (1 mg) to 250 mL NS. • Use 60 gtt/mL set. • Call 780 for IV pump. • Contact BioTel.	0.1 mcg/kg/min: 17 gtt/min 0.2 mcg/kg/min: 33 gtt/min 0.3 mcg/kg/min: 50 gtt/min 0.4 mcg/kg/min: 66 gtt/min 0.5 mcg/kg/min: 83 gtt/min 0.6 mcg/kg/min: 99 gtt/min 0.7 mcg/kg/min: 116 gtt/min 0.8 mcg/kg/min: 132 gtt/min 0.9 mcg/kg/min: 150 gtt/min (MAX)
Hydroxocobalamin	IV/IO		• Run 30 gtt/min for 15 min (1/8 vial or 25 mL). • Use 20 gtt/mL set in kit. • Set timer!
Magnesium Sulfate	TdP w/ pulse (IV/IO)	Start concentration: 5 mg/10 mL End concentration: 10 mg/mL • Add 2 mL (1 g) to 100 mL NS.	• Run 29 gtt/min (44 mL) for 15 min. • Use 10 gtt/mL set. • Set timer!
	Pulseless TdP (IV/IO)	Start concentration: 5 mg/10 mL End concentration: 50 mg/mL • Waste 1 mL from 10-mL NS flush. • Replace with 1 mL (0.5 g) mag sulfate.	• Push 8.8 mL SLOWLY over 2 min.

PURPLE

10 – 11.9 kg (22 – 26 lb) 12 – 23 months

BioTel PEDI-Guide				
Weight (kg): 12 – 14.9		Weight (lb): 26.4 – 32.8		
Age: 24 – 35 months		Length: 74.5 – 84 cm		
Normal Vital Signs:	HR 80 - 150	RR 25 - 40	SBP At least 75	
DEFIBRILLATION: 25 → 50 → 50 - 130 Joules		CARDIOVERSION: 13 → 26 → 50 Joules		
OPA: 60 mm; NPA: 20 Fr	Laryngoscope: 2 Straight	Fluid Bolus (20 mL/kg): 250 mL		
ETT: 4.0 Cuffed; Depth: 12.5 - 13.5 cm		King: Size 2 Green; I-Gel: Size 2 Gray		
Medication Administration				
NAME	CONCENTRATION	DOSE	ROUTE	VOLUME
Adenosine 1st dose	3 mg/mL	1.2 mg	IV/IO	0.4 mL
Adenosine 2nd dose	3 mg/mL	2.4 mg	IV/IO	0.8 mL
Albuterol NEB	2.5 mg/3 mL	5 mg	NEB	6 mL
Amiodarone - Arrest	50 mg/mL	70 mg	IV/IO	1.4 mL
Amiodarone - VT w/ pulse	50 mg/mL	35 mg	IV/IO	0.7 mL
Atropine - Bradycardia	0.1 mg/mL	0.25 mg	IV/IO	2.5 mL
Calcium Chloride	100 mg/mL	250 mg	IV/IO	2.5 mL slow IVP
Dexamethasone	4 mg/mL	6.4 mg	IV/IO/IM/PO	1.6 mL
Dextrose 10%	0.1 g/mL	3 g	IV/IO	50 mL
Diphenhydramine	50 mg/mL	10 mg	IV/IO/IM	0.2 mL
Epinephrine Drip	Refer to Dilution Chart on back and contact BioTel			
Epi 1:1000 IM	1 mg/mL	0.15 mg	IM	0.15 mL
Epi 1:10,000 IV	0.1 mg/mL	0.15 mg	IV/IO	1.5 mL
Epi Auto-Injector Junior		0.15 mg	IM	Up to 3 units
Epi 1:1000 NEB - Croup	1 mg/mL	5 mg	NEB	5 mL
Fentanyl	50 mcg/mL	15 mcg	IV/IO/IM/IN	0.3 mL
Glucagon - Hypoglycemia	1 mg/mL	0.5 mg	IV/IO/IM/IN	0.5 mL
Glucose Gel	15 g/37.5 mL tube	3 g	BUCCAL	7.5 mL
Hydroxocobalamin	5 g/200 mL	1.25 g	IV	See back
Ipratropium	0.5 mg/2.5 mL	0.5 mg	NEB	2.5 mL
Lidocaine 2% - IO insertion	20 mg/mL	6 mg	IO	0.3 mL
Magnesium Sulfate	See Dilution Chart	520 mg	IV/IO	See back
Midazolam	10 mg/2 mL	2.5 mg	IM/IN	0.5 mL
Naloxone	1 mg/mL	1.5 mg	IV/IO/IM/IN	1.5 mL
Norepinephrine Drip	Refer to Dilution Chart on back and contact BioTel			
Ondansetron	2 mg/mL	2 mg	IV/IO	1 mL
Ondansetron		½ of 4-mg ODT (N/A for 8-mg ODT)		
Sodium Bicarbonate 8.4%	1 mEq/mL	15 mEq	IV/IO	15 mL

YELLOW

24 – 35 months

(26.4 – 32.8 lb)

12 – 14.9 kg

BioTel PEDI-Guide				
Medication Dilution and Drip Instructions				
All medication dilution instructions MUST use the proper START concentration to be accurate!				
MEDICATION NAME	INDICATION (ROUTE)	DILUTION RECIPE	ADMINISTRATION INSTRUCTIONS	
YELLOW	Epinephrine Drip	IV/IO Start concentration: 0.1 mg/mL End concentration: 4 mcg/mL • Add 10 mL (1 mg) to 250 mL NS. • Use 60 gtt/mL set. • Call 780 for IV pump. • Contact BioTel.	2 mcg/min: 30 gtt/min 4 mcg/min: 60 gtt/min 6 mcg /min: 90 gtt/min 8 mcg/min: 120 gtt/min 10 mcg/min: 150 gtt/min	
	Norepinephrine Drip	IV/IO Start concentration: 2 mg/2 mL End concentration: 4 mcg/mL • Add 1 mL (1 mg) to 250 mL NS. • Use 60 gtt/mL set. • Call 780 for IV pump. • Contact BioTel.	0.1 mcg/kg/min: 20 gtt/min 0.2 mcg/kg/min: 39 gtt/min 0.3 mcg/kg/min: 59 gtt/min 0.4 mcg/kg/min: 78 gtt/min 0.5 mcg/kg/min: 98 gtt/min 0.6 mcg/kg/min: 117 gtt/min 0.7 mcg/kg/min: 137 gtt/min 0.8 mcg/kg/min: 150 gtt/min (MAX)	
	Hydroxocobalamin	IV/IO		• Run 60 gtt/min for 15 min (1/4 vial or 50 mL). • Use 20 gtt/mL set in kit. • Set timer!
	Magnesium Sulfate	Respiratory Distress (IV/IO)	Start concentration: 5 mg/10 mL End concentration: 10 mg/mL • Add 2 mL (1 g) to 100 mL NS.	• Run 35 gtt/min (52 mL) for 15 min. • Use 10 gtt/mL set. • Set timer!
	Magnesium Sulfate	TdP w/ pulse (IV/IO)	Start concentration: 5 mg/10 mL End concentration: 10 mg/mL • Add 2 mL (1 g) to 100 mL NS.	• Set timer!
	Magnesium Sulfate	Pulseless TdP (IV/IO)	Start concentration: 5 mg/10 mL End concentration: 50 mg/mL • Waste 1 mL from 10-mL NS flush. • Replace with 1 mL (0.5 g) mag sulfate.	• Push 10 mL SLOWLY over 2 min.

24 – 35 months
(26.4 – 32.8 lb)
12 – 14.9 kg

BioTel PEDI-Guide				
Weight (kg): 15 – 18.9		Weight (lb): 33 – 41.6		
Age: 3 – 4 years		Length: 95 – 108 cm		
Normal Vital Signs:	HR 80 - 140	RR 22 - 35	SBP At least 75	
DEFIBRILLATION: 33 → 65 → 65 - 150 Joules		CARDIOVERSION: 17 → 33 → 65 Joules		
OPA: 60 mm; NPA: 22 Fr	Laryngoscope: 2 Straight	Fluid Bolus (20 mL/kg): 300 mL		
ETT: 4.5 Cuffed; Depth: 14 – 15 cm		King: Size 2 Green; I-Gel: Size 2 Gray		
Medication Administration				
NAME	CONCENTRATION	DOSE	ROUTE	VOLUME
Adenosine 1st dose	3 mg/mL	1.8 mg	IV/IO	0.6 mL
Adenosine 2nd dose	3 mg/mL	3.6 mg	IV/IO	1.2 mL
Albuterol NEB	2.5 mg/3 mL	5 mg	NEB	6 mL
Amiodarone - Arrest	50 mg/mL	90 mg	IV/IO	1.8 mL
Amiodarone - VT w/ pulse	50 mg/mL	45 mg	IV/IO	0.9 mL
Atropine - Bradycardia	0.1 mg/mL	0.35 mg	IV/IO	3.5 mL
Calcium Chloride	100 mg/mL	350 mg	IV/IO	3.5 mL slow IVP
Dexamethasone	4 mg/mL	8.4 mL	IV/IO/IM/PO	2.1 mL
Dextrose 10%	0.1 g/mL	7.5 g	IV/IO	75 mL
Diphenhydramine	50 mg/mL	15 mg	IV/IO/IM	0.3 mL
Epinephrine Drip	Refer to Dilution Chart on back and contact BioTel			
Epi 1:1000 IM	1 mg/mL	0.2 mg	IM	0.2 mL
Epi 1:10,000 IV	0.1 mg/mL	0.2 mg	IV/IO	2 mL
Epi Auto-Injector Junior		0.15 mg	IM	Up to 3 units
Epi 1:1000 NEB - Croup	1 mg/mL	5 mg	NEB	5 mL
Fentanyl	50 mcg/mL	20 mcg	IV/IO/IM/IN	0.4 mL
Glucagon - Hypoglycemia	1 mg/mL	0.5 mg	IV/IO/IM/IN	0.5 mL
Glucose Gel	15 g/37.5 mL tube	3.75 g	BUCCAL	1/4 tube
Hydroxocobalamin	5 g/200 mL	1.25 g	IV	See back
Ipratropium	0.5 mg/2.5 mL	0.5 mg	NEB	2.5 mL
Lidocaine 2% - IO insertion	20 mg/mL	8 mg	IO	0.4 mL
Magnesium Sulfate	See Dilution Chart	680 mg	IV/IO	See back
Midazolam	10 mg/2 mL	2.5 mg	IM/IN	0.5 mL
Naloxone	1 mg/mL	2 mg	IV/IO/IM/IN	2 mL
Norepinephrine Drip	Refer to Dilution Chart on back and contact BioTel			
Ondansetron	2 mg/mL	3 mg	IV/IO	1.5 mL
Ondansetron		½ of 4-mg ODT (N/A for 8-mg ODT)		
Sodium Bicarbonate 8.4%	1 mEq/mL	20 mEq	IV/IO	20 mL

WHITE

3 – 4 years
33 – 41.6 lb
15 – 18.9 kg

BioTel PEDI-Guide				
Medication Dilution and Drip Instructions				
All medication dilution instructions MUST use the proper START concentration to be accurate!				
MEDICATION NAME	INDICATION (ROUTE)	DILUTION RECIPE	ADMINISTRATION INSTRUCTIONS	
WHITE	Epinephrine Drip	IV/IO	Start concentration: 0.1 mg/mL End concentration: 4 mcg/mL • Add 10 mL (1 mg) to 250 mL NS. • Use 60 gtt/mL set. • Call 780 for IV pump. • Contact BioTel.	
	Norepinephrine Drip	IV/IO	Start concentration: 2 mg/2 mL End concentration: 4 mcg/mL • Add 1 mL (1 mg) to 250 mL NS. • Use 60 gtt/mL set. • Call 780 for IV pump. • Contact BioTel.	
	Hydroxocobalamin	IV/IO		• Run 60 gtt/min for 15 min (1/4 vial or 50 mL). • Use 20 gtt/mL set in kit. • Set timer!
	Magnesium Sulfate	Respiratory Distress (IV/IO)	Start concentration: 5 mg/10 mL End concentration: 10 mg/mL. • Add 2 mL (1 g) to 100 mL NS.	• Run 45 gtt/min (68 mL) for 15 min. • Use 10 gtt/mL set. • Set timer!
		TdP w/ pulse (IV/IO)	Start concentration: 5 mg/10 mL End concentration: 10 mg/mL • Add 2 mL (1 g) to 100 mL NS.	
Pulseless TdP (IV/IO)		Start concentration: 5 mg/10 mL End concentration: 200 mg/mL • Waste 4 mL from 10-mL NS flush. • Replace with 4 mL (2 g) mag sulfate.	• Push 3.4 mL SLOWLY over 2 min.	
		3 – 4 years		
		(33 – 41.6 lb)		
		15 – 18.9 kg		

BioTel PEDI-Guide				
Weight (kg): 19 – 23.9		Weight (lb): 41.8 – 52.6		
Age: 5 – 6 years		Length: 109 – 122.5 cm		
Normal Vital Signs:	HR 70 - 120	RR 18 - 30	SBP At least 80	
DEFIBRILLATION: 40 → 80 → 80 - 200 Joules		CARDIOVERSION: 20 → 40 → 80 Joules		
OPA: 70 mm; NPA: 24 Fr	Laryngoscope: 2 Straight	Fluid Bolus (20 mL/kg): 400 mL		
ETT: 5.0 Cuffed; Depth: 15.5 – 16.5 cm		King: Size 2 Green; I-Gel: Size 2 Gray		
Medication Administration				
NAME	CONCENTRATION	DOSE	ROUTE	VOLUME
Acetaminophen	325 mg tab	325 mg	PO	1 tab
Adenosine 1st dose	3 mg/mL	2.1 mg	IV/IO	0.7 mL
Adenosine 2nd dose	3 mg/mL	4.2 mg	IV/IO	1.4 mL
Albuterol NEB	2.5 mg/3 mL	5 mg	NEB	6 mL
Amiodarone - Arrest	50 mg/mL	100 mg	IV/IO	2 mL
Amiodarone - VT w/ pulse	50 mg/mL	50 mg	IV/IO	1 mL
Atropine - Bradycardia	0.1 mg/mL	0.4 mg	IV/IO	4 mL
Calcium Chloride	100 mg/mL	400 mg	IV/IO	4 mL slow IVP
Dexamethasone	4 mg/mL	10 mg	IV/IO/IM/PO	2.5 mL
Dextrose 10%	0.1 g/mL	7.5 g	IV/IO	75 mL
Diphenhydramine	50 mg/mL	20 mg	IV/IO/IM	0.4 mL
Epinephrine Drip	Refer to Dilution Chart on back and contact BioTel			
Epi 1:1000 IM	1 mg/mL	0.2 mg	IM	0.2 mL
Epi 1:10,000 IV	0.1 mg/mL	0.2 mg	IV/IO	2 mL
Epi Auto-Injector Junior		0.15 mg	IM	Up to 3 units
Epi 1:1000 NEB - Croup	1 mg/mL	5 mg	NEB	5 mL
Fentanyl	50 mcg/mL	20 mcg	IV/IO/IM/IN	0.4 mL
Glucagon	1 mg/mL	1 mg	IV/IO/IM/IN	1 mL
Glucose Gel	15 g/37.5 mL tube	7.5 g	BUCCAL	1/2 tube
Hydroxocobalamin	5 g/200 mL	1.25 g	IV	See back
Ipratropium	0.5 mg/2.5 mL	0.5 mg	NEB	2.5 mL
Lidocaine 2% - IO insertion	20 mg/mL	10 mg	IO	0.5 mL
Magnesium Sulfate	See Dilution Chart	840 mg	IV/IO	See back
Midazolam (5 yrs)	10 mg/2 mL	2.5 mg	IM/IN	0.5 mL
Midazolam (6 yrs)	10 mg/2 mL	5 mg	IM/IN	1 mL
Naloxone	1 mg/mL	2 mg	IV/IO/IM/IN	2 mL
Norepinephrine Drip	Refer to Dilution Chart on back and contact BioTel			
Ondansetron	2 mg/mL	4 mg	IV/IO	2 mL
Ondansetron		1 full 4-mg ODT OR ½ of 8-mg ODT		
Sodium Bicarbonate 8.4%	1 mEq/mL	20 mEq	IV/IO	20 mL

BLUE

5 – 6 years

(41.8 – 52.6 lb)

19 – 23.9 kg

BioTel PEDI-Guide				
Medication Dilution and Drip Instructions				
All medication dilution instructions MUST use the proper START concentration to be accurate!				
MEDICATION NAME	INDICATION (ROUTE)	DILUTION RECIPE	ADMINISTRATION INSTRUCTIONS	
BLUE	Epinephrine Drip	Start concentration: 0.1 mg/mL End concentration: 4 mcg/mL • Add 10 mL (1 mg) to 250 mL NS. • Use 60 gtt/mL set. • Call 780 for IV pump. • Contact BioTel.	2 mcg/min: 30 gtt/min 4 mcg/min: 60 gtt/min 6 mcg/min: 90 gtt/min 8 mcg/min: 120 gtt/min 10 mcg/min: 150 gtt/min	
	Norepinephrine Drip	Start concentration: 2 mg/2 mL End concentration: 8 mcg/mL • Add 2 mL (2 mg) to 250 mL NS. • Use 60 gtt/mL set. • Call 780 for IV pump. • Contact BioTel.	2 mcg/min: 15 gtt/min 4 mcg/min: 30 gtt/min 6 mcg/min: 45 gtt/min 8 mcg/min: 60 gtt/min 10 mcg/min: 75 gtt/min	
	Hydroxocobalamin	IV/IO		• Run 60 gtt/min for 15 min (1/4 vial or 50 mL). • Use 20 gtt/mL set in kit. • Set timer!
	Magnesium Sulfate	Respiratory Distress (IV/IO) TdP w/ pulse (IV/IO) Pulseless TdP (IV/IO)	Start concentration: 5 mg/10 mL End concentration: 10 mg/mL. • Add 2 mL (1 g) to 100 mL NS. Start concentration: 5 mg/10 mL End concentration: 10 mg/mL • Add 2 mL (1 g) to 100 mL NS. Start concentration: 5 mg/10 mL End concentration: 200 mg/mL • Waste 4 mL from 10-mL NS flush. • Replace with 4 mL (2 g) mag sulfate.	• Run 56 gtt/min (84 mL) for 15 min. • Use 10 gtt/mL set. • Set timer! • Push 4.2 mL SLOWLY over 2 min.
5 – 6 years (41.8 – 52.6 lb) 19 – 23.9 kg				

BioTel PEDI-Guide				
Weight (kg): 24 – 29.9		Weight (lb): 53 – 64		
Age: 7 – 9 years		Length: 123 – 131 cm		
Normal Vital Signs:	HR 70 - 120	RR 18 - 30	SBP At least 85	
DEFIBRILLATION: 55 → 110 → 110 - 260 Joules		CARDIOVERSION: 27 → 52 → 100 Joules		
OPA: 80 mm; NPA: 26 Fr	Laryngoscope: 2 Straight	Fluid Bolus (20 mL/kg): 500 mL		
ETT: 6.0 Cuffed; Depth: 17 – 18 cm		King: Size 2.5 Orange; I-Gel: Size 2.5 White		
Medication Administration				
NAME	CONCENTRATION	DOSE	ROUTE	VOLUME
Acetaminophen	325 mg tab	325 mg	PO	1 tab
Adenosine 1st dose	3 mg/mL	2.7 mg	IV/IO	0.9 mL
Adenosine 2nd dose	3 mg/mL	5.4 mg	IV/IO	1.8 mL
Albuterol NEB	2.5 mg/3 mL	5 mg	NEB	6 mL
Amiodarone - Arrest	50 mg/mL	140 mg	IV/IO	2.8 mL
Amiodarone - VT w/ pulse	50 mg/mL	70 mg	IV/IO	1.4 mL
Atropine - Bradycardia	0.1 mg/mL	0.5 mg	IV/IO	5 mL
Calcium Chloride	100 mg/mL	550 mg	IV/IO	5.5 mL slow IVP
Dexamethasone	4 mg/mL	10 mg	IV/IO/IM/PO	2.5 mL
Dextrose 10%	0.1 g/mL	10 g	IV/IO	100 mL
Diphenhydramine	50 mg/mL	25 mg	IV/IO/IM	0.5 mL
Epinephrine Drip	Refer to Dilution Chart on back and contact BioTel			
Epi 1:1000 IM	1 mg/mL	0.25 mg	IM	0.25 mL
Epi 1:10,000 IV	0.1 mg/mL	0.25 mg	IV/IO	2.5 mL
Epi Auto-Injector Junior		0.15 mg	IM	Up to 3 units
Epi 1:1000 NEB - Croup	1 mg/mL	5 mg	NEB	5 mL
Fentanyl	50 mcg/mL	25 mcg	IV/IO/IM/IN	0.5 mL
Glucagon	1 mg/mL	1 mg	IV/IO/IM/IN	1 mL
Glucose Gel	15 g/37.5 mL tube	15 g	BUCCAL	1 tube
Hydroxocobalamin	5 g/200 mL	2.5 g	IV	See back
Ipratropium	0.5 mg/2.5 mL	0.5 mg	NEB	2.5 mL
Lidocaine 2% - IO insertion	20 mg/mL	14 mg	IO	0.7 mL
Magnesium Sulfate	See Dilution Chart	1000 mg	IV/IO	See back
Midazolam	10 mg/2 mL	5 mg	IM/IN	1 mL
Naloxone	1 mg/mL	2 mg	IV/IO/IM/IN	2 mL
Norepinephrine Drip	Refer to Dilution Chart on back and contact BioTel			
Ondansetron	2 mg/mL	4 mg	IV/IO	2 mL
Ondansetron		1 full 4-mg ODT OR ½ of 8-mg ODT		
Sodium Bicarbonate 8.4%	1 mEq/mL	30 mEq	IV/IO	30 mL

ORANGE

7 – 9 years
(53 – 64 lb)
24 – 29.9 kg

BioTel PEDI-Guide			
Medication Dilution and Drip Instructions			
All medication dilution instructions MUST use the proper START concentration to be accurate!			
MEDICATION NAME	INDICATION (ROUTE)	DILUTION RECIPE	ADMINISTRATION INSTRUCTIONS
ORANGE	Epinephrine Drip	IV/IO	Start concentration: 0.1 mg/mL End concentration: 4 mcg/mL • Add 10 mL (1 mg) to 250 mL NS. • Use 60 gtt/mL set. • Call 780 for IV pump. • Contact BioTel.
	Norepinephrine Drip	IV/IO	Start concentration: 2 mg/2 mL End concentration: 8 mcg/mL • Add 2 mL (2 mg) to 250 mL NS. • Use 60 gtt/mL set. • Call 780 for IV pump. • Contact BioTel.
	Hydroxocobalamin	IV/IO	
	Magnesium Sulfate	Respiratory Distress (IV/IO)	Start concentration: 5 mg/10 mL End concentration: 10 mg/mL. • Add 2 mL (1 g) to 100 mL NS.
	TdP w/ pulse (IV/IO)	Start concentration: 5 mg/10 mL End concentration: 10 mg/mL • Add 2 mL (1 g) to 100 mL NS.	• Run 120 gtt/min for 15 min (1/2 vial or 100 mL). • Use 20 gtt/mL set in kit. • Set timer! • Run 67 gtt/min (100 mL) for 15 min. • Use 10 gtt/mL set. • Set timer!
	Pulseless TdP (IV/IO)	Start concentration: 5 mg/10 mL End concentration: 200 mg/mL • Waste 4 mL from 10-mL NS flush. • Replace with 4 mL (2 g) mag sulfate.	• Push 5.2 mL SLOWLY over 2 min.
		24 – 29.9 kg (53 – 64 lb) 7 – 9 years	

BioTel PEDI-Guide				
Weight (kg): 30 – 36.9		Weight (lb): 66 – 81		
Age: 10 – 11 years		Length: 131 – 144 cm		
Normal Vital Signs:	HR 60 - 100	RR 12 - 20	SBP At least 90	
DEFIBRILLATION: 55 → 110 → 110 - 260 Joules		CARDIOVERSION: 27 → 52 → 100 Joules		
OPA: 80 mm; NPA: 26 Fr	Laryngoscope: 3 Straight	Fluid Bolus (20 mL/kg): 700 mL		
ETT: 6.5 Cuffed; Depth: 18.5 – 19.5 cm		King: Size 3 Yellow; I-Gel: Size 3 Yellow		
Medication Administration				
NAME	CONCENTRATION	DOSE	ROUTE	VOLUME
Acetaminophen	325 mg tab	325 mg	PO	1 tab
Adenosine 1st dose	3 mg/mL	3 mg	IV/IO	1 mL
Adenosine 2nd dose	3 mg/mL	6.6 mg	IV/IO	2.2 mL
Albuterol NEB	2.5 mg/3 mL	5 mg	NEB	6 mL
Amiodarone - Arrest	50 mg/mL	160 mg	IV/IO	3.2 mL
Amiodarone - VT w/ pulse	50 mg/mL	80 mg	IV/IO	1.6 mL
Atropine - Bradycardia	0.1 mg/mL	0.5 mg	IV/IO	5 mL
Calcium Chloride	100 mg/mL	650 mg	IV/IO	6.5 mL slow IVP
Dexamethasone	4 mg/mL	10 mg	IV/IO/IM/PO	2.5 mL
Dextrose 10%	0.1 g/mL	12.5 g	IV/IO	125 mL
Diphenhydramine	50 mg/mL	35 mg	IV/IO/IM	0.7 mL
Epinephrine Drip	Refer to Dilution Chart on back and contact BioTel			
Epi 1:1000 IM	1 mg/mL	0.3 mg	IM	0.3 mL
Epi 1:10,000 IV	0.1 mg/mL	0.3 mg	IV/IO	3 mL
Epi Auto-Injector ADULT	1 mg/mL	0.3 mg	IM	Up to 3 units
Epi 1:1000 NEB - Croup	1 mg/mL	5 mg	NEB	5 mL
Fentanyl	50 mcg/mL	35 mcg	IV/IO/IM/IN	0.7 mL
Glucagon	1 mg/mL	1 mg	IV/IO/IM/IN	1 mL
Glucose Gel	15 g/37.5 mL tube	15 g	BUCCAL	1 tube
Hydroxocobalamin	5 g/200 mL	2.5 g	IV	See back
Ipratropium	0.5 mg/2.5 mL	0.5 mg	NEB	2.5 mL
Lidocaine 2% - IO insertion	20 mg/mL	16 mg	IO	0.8 mg
Magnesium Sulfate	See Dilution Chart	1320 mg	IV/IO	See back
Midazolam	10 mg/2 mL	5 mg	IM/IN	1 mL
Naloxone	1 mg/mL	2 mg	IV/IO/IM/IN	2 mL
Norepinephrine Drip	Refer to Dilution Chart on back and contact BioTel			
Ondansetron	2 mg/mL	4 mg	IV/IO	2 mL
Ondansetron		1 full 4-mg ODT OR ½ of 8-mg ODT		
Sodium Bicarbonate 8.4%	1 mEq/mL	35 mEq	IV/IO	35 mL

GREEN

10 – 11 years
(66 – 81 lb)
30 – 36.9 kg

GREEN		BioTel PEDI-Guide			
		Medication Dilution and Drip Instructions			
		All medication dilution instructions MUST use the proper START concentration to be accurate!			
MEDICATION NAME	INDICATION (ROUTE)	DILUTION RECIPE	ADMINISTRATION INSTRUCTIONS		
GREEN	Epinephrine Drip	IV/IO	Start concentration: 0.1 mg/mL End concentration: 4 mcg/mL • Add 10 mL (1 mg) to 250 mL NS. • Use 60 gtt/mL set. • Call 780 for IV pump. • Contact BioTel.	2 mcg/min: 30 gtt/min 4 mcg/min: 60 gtt/min 6 mcg/min: 90 gtt/min 8 mcg/min: 120 gtt/min 10 mcg/min: 150 gtt/min	
	Norepinephrine Drip	IV/IO	Start concentration: 2 mg/2 mL End concentration: 8 mcg/mL • Add 2 mL (2 mg) to 250 mL NS. • Use 60 gtt/mL set. • Call 780 for IV pump. • Contact BioTel.	2 mcg/min: 15 gtt/min 4 mcg/min: 30 gtt/min 6 mcg/min: 45 gtt/min 8 mcg/min: 60 gtt/min 10 mcg/min: 75 gtt/min	
	Hydroxocobalamin	IV/IO		• Run 120 gtt/min for 15 min (1/2 vial or 100 mL). • Use 20 gtt/mL set in kit. • Set timer!	
	Magnesium Sulfate	Respiratory Distress (IV/IO)	Start concentration: 5 mg/10 mL End concentration: 20 mg/mL. • Add 4 mL (2 g) to 100 mL NS.	• Run 44 gtt/min (66 mL) for 15 min. • Use 10 gtt/mL set. • Set timer!	
TdP w/ pulse (IV/IO)		Start concentration: 5 mg/10 mL End concentration: 20 mg/mL. • Add 4 mL (2 g) to 100 mL NS.			
Pulseless TdP (IV/IO)		Start concentration: 5 mg/10 mL End concentration: 200 mg/mL • Waste 4 mL from 10-mL NS flush. • Replace with 4 mL (2 g) mag sulfate.	• Push 6.6 mL SLOWLY over 2 min.		
				10 – 11 years	
				(66 – 81 lb)	
				30 – 36.9 kg	

BioTel PEDI-Guide				
Weight (kg): 37 – 50			Weight (lb): 81.4 – 110	
Age: 12 – 13 years			Length: 131 – 144 cm	
Normal Vital Signs:	HR 60 - 100	RR 12 - 20	SBP At least 100	
DEFIBRILLATION: 75 → 150 → 150 - 360 Joules		CARDIOVERSION: 40 → 80 → 160 Joules		
OPA: 80 mm; NPA: 28 Fr	Laryngoscope: 4 or 5	Fluid Bolus (20 mL/kg): 800 mL		
ETT: 7.0 Cuffed; Depth: 21 – 22.5 cm		King: Size 3 Yellow; I-Gel: Size 3 Yellow		
Medication Administration				
NAME	CONCENTRATION	DOSE	ROUTE	VOLUME
Acetaminophen	325 mg	650 mg	PO	2 tab
Adenosine 1st	3 mg/mL	4.2 mg	IV/IO	1.4 mL
Adenosine 2nd	3 mg/mL	8.4 mg	IV/IO	2.8 mL
Albuterol NEB	2.5 mg/3 mL	5 mg	NEB	6 mL
Amiodarone- Arrest	50 mg/mL	200 mg	IV/IO	4 mL
Amiodarone- VT w/ pulse	50 mg/mL	100 mg	IV/IO	2 mL
Atropine - Bradycardia	0.1 mg/mL	0.5 mg	IV/IO	5 mL
Calcium Chloride	100 mg/mL	800 mg	IV/IO	8 mL slow IVP
Dexamethasone	4 mg/mL	10 mg	IV/IO/IM/PO	2.5 mL
Dextrose 10%	0.1 g/mL	12.5 g	IV/IO	125 mL
Diphenhydramine	50 mg/mL	40 mg	IV/IO/IM	0.8 mL
Epinephrine Drip	Refer to Dilution Chart on back and contact BioTel			
Epi 1:1000 IM	1 mg/mL	0.4 mg	IM	0.4 mL
Epi 1:10,000 IV	0.1 mg/mL	0.4 mg	IV/IO	4 mL
Epi Auto-Injector ADULT	1 mg/mL	0.3 mg	IM	Up to 3 units
Epi 1:1000 NEB - Croup	1 mg/mL	5 mg	NEB	5 mL
Fentanyl	50 mcg/mL	40 mcg	IV/IO/IM/IN	0.8 mL
Glucagon	1 mg/mL	1 mg	IV/IO/IM/IN	1 mL
Glucose Gel	15 g/37.5 mL tube	15 g	BUCCAL	1 tube
Hydroxocobalamin	5 g/200 mL	2.5 g	IV	See back
Ipratropium	0.5 mg/2.5 mL	0.5 mg	NEB	2.5 mL
Lidocaine 2% -IO insertion	20 mg/mL	20 mg	IV/IO	1 mL
Magnesium Sulfate	See Dilution Chart	1600 mg	IV/IO	See back
Midazolam	10 mg/2 mL	10 mg	IM/IN	2 mL
Naloxone	1 mg/mL	2 mg	IV/IO/IM/IN	2 mL
Norepinephrine Drip	Refer to Dilution Chart on back and contact BioTel			
Ondansetron	2 mg/mL	4 mg	IV/IO	2 mL
Ondansetron		1 full 4-mg ODT OR ½ of 8-mg ODT		
Sodium Bicarbonate 8.4%	1 mEq/mL	40 mEq	IV/IO	40 mL

BLACK

12 – 13 years
(81.4 – 110 lb)
37 – 50 kg

BioTel PEDI-Guide			
Medication Dilution and Drip Instructions			
All medication dilution instructions MUST use the proper START concentration to be accurate!			
MEDICATION NAME	INDICATION (ROUTE)	DILUTION RECIPE	ADMINISTRATION INSTRUCTIONS
BLACK	Epinephrine Drip	IV/IO Start concentration: 0.1 mg/mL End concentration: 4 mcg/mL • Add 10 mL (1 mg) to 250 mL NS. • Use 60 gtt/mL set. • Call 780 for IV pump. • Contact BioTel.	2 mcg/min: 30 gtt/min 4 mcg/min: 60 gtt/min 6 mcg/min: 90 gtt/min 8 mcg/min: 120 gtt/min 10 mcg/min: 150 gtt/min
	Norepinephrine Drip	IV/IO Start concentration: 2 mg/2 mL End concentration: 8 mcg/mL • Add 2 mL (2 mg) to 250 mL NS. • Use 60 gtt/mL set. • Call 780 for IV pump. • Contact BioTel.	2 mcg/min: 15 gtt/min 4 mcg/min: 30 gtt/min 6 mcg/min: 45 gtt/min 8 mcg/min: 60 gtt/min 10 mcg/min: 75 gtt/min
	Hydroxocobalamin	IV/IO	• Run 120 gtt/min for 15 min (1/2 vial or 100 mL). • Use 20 gtt/mL set in kit. • Set timer!
	Magnesium Sulfate	Respiratory Distress (IV/IO)	Start concentration: 5 mg/10 mL End concentration: 20 mg/mL. • Add 4 mL (2 g) to 100 mL NS.
TdP w/ pulse (IV/IO)		Start concentration: 5 mg/10 mL End concentration: 20 mg/mL. • Add 4 mL (2 g) to 100 mL NS.	
Pulseless TdP (IV/IO)		Start concentration: 5 mg/10 mL End concentration: 200 mg/mL • Waste 4 mL from 10-mL NS flush. • Replace with 4 mL (2 g) mag sulfate.	• Push 80 mL SLOWLY over 2 min.

12 – 13 years

(81.4 – 110 lb)

37 – 50 kg