

# EMERGENCY MEDICAL CONSULTANTS, INC.

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## PEDIATRIC EMERGENCY REFERENCE CARD

Approximate Age	<1 mo Gray 3 kg	<1 mo Gray 4 kg	1 mo Gray 5 kg	3 mos Pink 6-7 kg	6 mos Red 8-9 kg	1 yr Purple 10-11 kg	2 yr Yellow 12-14 kg	3 yr White 15-18 kg	5 yr Blue 19-22 kg	7 yr Orange 24-28 kg	10 yr Green 30-36 kg
<b>2016 Update</b>											
<b>EMERGENCY MEDS Average Dose</b>											
Activated Charcoal 1 gm/kg 25 gm/120 mL concentration	-	-	-	30 mL 5 gm	40 mL 8 gm	50 mL 10 gm	65 mL 13 gm	80 mL 16 gm	100 mL 20 gm	120 mL 25 gm	120 mL 25 gm
Adenosine 0.1 mg/kg 3 mg/mL concentration	0.1 mL 0.3 mg	0.13 mL 0.4 mg	0.17 mL 0.5 mg	0.2 mL 0.6 mg	0.26 mL 0.7 mg	0.33 mL 1 mg	0.43 mL 1.3 mg	0.53 mL 1.7 mg	0.7 mL 2.1 mg	0.9 mL 2.7 mg	1.1 mL 3.3 mg
Amiodarone 5 mg/kg (Dilute & Push if arrested.) 50 mg/mL concentration (Give over 20-60 min if live pt.)	0.3 mL 15 mg	0.4 mL 20 mg	0.5 mL 25 mg	0.6 mL 32 mg	0.8 mL 42 mg	1 mL 52 mg	1.3 mL 65 mg	1.6 mL 80 mg	2 mL 105 mg	2.6 mL 130 mg	3.3 mL 165 mg
Atropine 0.02 mg/kg 0.1 mg/mL concentration	1 mL 0.1 mg	1 mL 0.1 mg	1 mL 0.1 mg	1.2 mL 0.12 mg	1.6 mL 0.16 mg	2 mL 0.2 mg	2.6 mL 0.26 mg	3.2 mL 0.32 mg	4 mL 0.4 mg	5 mL 0.5 mg	5 mL 0.5 mg
Benadryl 1.5 mg/kg 50 mg/mL concentration	0.09 mL 4.5 mg	0.12 mL 6 mg	0.15 mL 7.5 mg	0.2 mL 9 mg	0.25 mL 12 mg	0.3 mL 15 mg	0.4 mL 19.5 mg	0.5 mL 24 mg	0.6 mL 30 mg	0.8 mL 39 mg	1 mL 50 mg
Calcium Chloride 20 mg/kg 50 mg/mL concentration	1 mL 60 mg	1.5 mL 80 mg	2 mL 100 mg	2.5 mL 120 mg	3 mL 150 mg	4 mL 200 mg	5 mL 260 mg	6.5 mL 320 mg	8 mL 400 mg	10.6 mL 530 mg	13.2 mL 660 mg
Diazepam 0.2 mg/kg (Rectal 0.5 mg/kg) 5 mg/mL concentration	0.12 mL 0.6 mg	0.16 mL 0.8 mg	0.2 mL 1 mg	0.25 mL 1.3 mg	0.3 mL 1.7 mg	0.4 mL 2 mg	0.5 mL 2.6 mg	0.7 mL 3.3 mg	0.8 mL 4.2 mg	1 mL 5.3 mg	1.3 mL 6.6 mg
Dextrose 0.5 gm/kg D10 = 0.125 gm/mL D25 = 0.25 gm/mL	6 mL D10 1.5 gm	8 mL D10 2 gm	10 mL D10 2.5 gm	13 mL D25 3.25 gm	17 mL D25 4.25 gm	21 mL D25 5.25 gm	26 mL D25 6.5 gm	33 mL D25 8.25 gm	42 mL D25 10.5 gm	53 mL D25 13.3 gm	66 mL D25 16.5 gm
Epinephrine 1:10,000 0.01 mg/kg Arrested 0.1 mg/mL concentration	0.3 mL 0.03 mg	0.4 mL 0.04 mg	0.5 mL 0.05 mg	0.6 mL 0.06 mg	0.8 mL 0.08 mg	1 mL 0.1 mg	1.3 mL 0.13 mg	1.6 mL 0.16 mg	2 mL 0.2 mg	2.7 mL 0.27 mg	3.3 mL 0.33 mg
Epi 1:1,000 ET Tube for Arrests 0.1 mg/kg 1mg/mL concentration	-	-	-	0.6 mL 0.6 mg	0.8 mL 0.8 mg	1 mL 1 mg	1.3 mL 1.3 mg	1.6 mL 1.6 mg	2 mL 2 mg	2.7 mL 2.7 mg	3.3 mL 3.3 mg
Epi 1:1,000 (0.01 mg/kg = IM for allergic reaction) 1 mg/mL concentration	0.03 mL 0.03 mg	0.04 mL 0.04 mg	0.05 mL 0.05 mg	0.06 mL 0.06 mg	0.08 mL 0.08 mg	0.1 mL 0.1 mg	0.13 mL 0.13 mg	0.16 mL 0.16 mg	0.2 mL 0.2 mg	0.27 mL 0.27 mg	0.3 mL 0.3 mg
Fentanyl 1 mcg/kg 50mcg/mL concentration	0.06 mL 3 mcg	0.08 mL 4 mcg	0.1 mL 5 mcg	0.12 mL 6 mcg	0.16 mL 8 mcg	0.2 mL 10 mcg	0.26 mL 13 mcg	0.32 mL 16 mcg	0.4 mL 20 mcg	0.52 mL 26 mcg	0.66 mL 33 mcg
Flumazenil 0.01 mg/kg 0.1 mg/mL concentration	0.3 mL 0.03 mg	0.4 mL 0.04 mg	0.5 mL 0.05 mg	0.65 mL 0.065 mg	0.8 mL 0.08 mg	1 mL 0.1 mg	1.2 mL 0.12 mg	1.6 mL 0.16 mg	2 mL 0.2 mg	2 mL 0.2 mg	2 mL 0.2 mg
Furosemide 1 mg/kg 10 mg/mL concentration	0.3 mL 3 mg	0.4 mL 4 mg	0.5 mL 5 mg	0.65 mL 6.5 mg	0.85 mL 8.5 mg	1.1 mL 11 mg	1.3 mL 13 mg	1.7 mL 17 mg	2.1 mL 21 mg	2.7 mL 27 mg	3.3 mL 33 mg
Glucagon 0.5 mg to 1 mg IM 1 mg/mL concentration	0.5 mL 0.5 mg	0.5 mL 0.5 mg	0.5 mL 0.5 mg	0.5 mL 0.5 mg	0.5 mL 0.5 mg	0.5 mL 0.5 mg	0.5 mL 0.5 mg	0.5 mL 0.5 mg	0.5 mL 0.5 mg	1 mL 1 mg	1 mL 1 mg
Lidocaine 1 mg/kg 20 mg/mL concentration	0.2 mL 3 mg	0.25 mL 4 mg	0.3 mL 5 mg	0.4 mL 6.5 mg	0.5 mL 8.5 mg	0.6 mL 10 mg	0.7 mL 13 mg	0.8 mL 17 mg	1 mL 20 mg	1.3 mL 27 mg	1.7 mL 33 mg
Lorazepam 0.1 mg/kg (Ativan) may ↑ for induction 2 mg/mL concentration	0.15 mL 0.3 mg	0.2 mL 0.4 mg	0.25 mL 0.5 mg	0.35 mL 0.7 mg	0.4 mL 0.9 mg	0.5 mL 1 mg	0.65 mL 1.3 mg	0.85 mL 1.7 mg	1.0 mL 2 mg	1.25 mL 2.7 mg	1.65 mL 3.3 mg
Mag Sulfate 50 mg/kg 500 mg/mL concentration	0.3 mL 150 mg	0.4 mL 200 mg	0.5 mL 250 mg	0.6 mL 325 mg	0.8 mL 425 mg	1 mL 525 mg	1.3 mL 650 mg	1.6 mL 820 mg	2 mL 1050 mg	2.6 mL 1325 mg	3.3 mL 1650 mg
Morphine 0.1 mg/kg 10 mg/mL concentration	0.03 mL 0.3 mg	0.04 mL 0.4 mg	0.05 mL 0.5 mg	0.06 mL 0.6 mg	0.08 mL 0.8 mg	0.1 mL 1 mg	0.13 mL 1.3 mg	0.15 mL 1.6 mg	0.2 mL 2 mg	0.25 mL 2.6 mg	0.33 mL 3.3 mg
Midazolam 0.1 mg/kg (Versed) 1 mg/mL concentration (for seizure)	0.3 mL 0.3 mg	0.4 mL 0.4 mg	0.5 mL 0.5 mg	0.6 mL 0.6 mg	0.8 mL 0.8 mg	1 mL 1 mg	1.2 mL 1.2 mg	1.5 mL 1.5 mg	2 mL 2 mg	2.5 mL 2.5 mg	3 mL 3 mg
Naloxone 0.1 mg/kg (may repeat PRN) 0.4 mg/mL concentration	0.75 mL 0.3 mg	1 mL 0.4 mg	1.25 mL 0.5 mg	1.5 mL 0.6 mg	up to 2 mL 0.8 mg	up to 2.5 mL 1 mg	up to 3.25 mL 1.3 mg	up to 4 mL 1.6 mg	up to 5 mL 2 mg	up to 5 mL 2 mg	up to 5 mL 2 mg
Sodium Bicarb 1 mEq/kg 1 mEq/mL concentration	3 mL 3 mEq	4 mL 4 mEq	5 mL 5 mEq	6 mL 6 mEq	8 mL 8 mEq	10 mL 10 mEq	13 mL 13 mEq	16 mL 16 mEq	20 mL 20 mEq	26 mL 26 mEq	33 mL 33 mEq
<b>SEDATION / RSI MEDS</b>											
Etomidate 0.3 mg/kg 2 mg/mL concentration	0.45 mL 0.9 mg	0.6 mL 1.2 mg	0.75 mL 1.5 mg	1 mL 2 mg	1.25 mL 2.5 mg	1.6 mL 3.2 mg	2 mL 4 mg	2.5 mL 5 mg	3.15 mL 6.3 mg	4 mL 8 mg	5 mL 10 mg
Ketamine 2 mg/kg 5 mg/mL concentration	-	-	-	2.6 mL 13 mg	3.4 mL 17 mg	4.2 mL 21 mg	5.2 mL 26 mg	6.6 mL 33 mg	8.4 mL 42 mg	10 mL 50 mg	13.2 mL 66 mg
Midazolam 0.3 mg/kg (Versed) 5 mg/mL concentration	0.18 mL 0.9 mg	0.24 mL 1.2 mg	0.3 mL 1.5 mg	0.36 mL 1.8 mg	0.48 mL 2.4 mg	0.6 mL 3 mg	0.78 mL 3.9 mg	0.96 mL 4.8 mg	1 mL 5 mg	1 mL 5 mg	1 mL 5 mg
Succinylcholine 2 mg/kg 20 mg/mL concentration (premedicate w/ Atropine)	0.3 mL 6 mg	0.4 mL 8 mg	0.5 mL 10 mg	0.6 mL 12 mg	0.8 mL 16 mg	1 mL 20 mg	1.3 mL 26 mg	1.6 mL 32 mg	2 mL 40 mg	2.6 mL 52 mg	3.3 mL 66 mg
Vecuronium 0.1 mg/kg may ↑ for initial paralysis 1 mg/mL concentration	-	-	-	-	0.8 mL 0.8 mg	1 mL 1 mg	1.3 mL 1.3 mg	1.5 mL 1.5 mg	0.21 mL 0.21 mg	0.27 mL 0.27 mg	0.33 mL 0.33 mg

Colors & doses are based on Broselow-Luten System. Some mL doses have been slightly rounded for ease of administration. Doses are based on standard concentrations listed under each medication. These doses are generic and standard at the time of publishing. Check all doses with current text and / or policy. Publisher not responsible for errors.

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<b>INFUSIONS</b>											
Fluid Bolus 20 mL/kg	60 mL	80 mL	100 mL	130 mL	170 mL	210 mL	260 mL	325 mL	420 mL	530 mL	660 mL
Dopamine 2-20 mcg/kg/min *1,600 mcg/mL concen starting dose; titrate up	@ 0.2 mL/hr	@ 0.3 mL/hr	@ 0.4 mL/hr	@ 0.5 mL/hr	@ 0.7 mL/hr	@ 0.8 mL/hr	@ 1.0 mL/hr	@ 1.3 mL/hr	@ 1.6 mL/hr	@ 2.0 mL/hr	@ 2.5 mL/hr
Dobutamine 2-20 mcg/kg/min *2,000 mcg/mL concen starting dose; titrate up	@ 0.2 mL/hr	@ 0.2 mL/hr	@ 0.3 mL/hr	@ 0.4 mL/hr	@ 0.5 mL/hr	@ 0.7 mL/hr	@ 0.8 mL/hr	@ 1.0 mL/hr	@ 1.3 mL/hr	@ 1.6 mL/hr	@ 2.0 mL/hr
Epi Infusion 0.1 - 1. mcg/kg/min *0.1 mg (100mcg) /mL concen starting dose; titrate up	@ 0.4 mL/hr use 50 mcg/mL	@ 0.5 mL/hr use 50 mcg/mL	@ 0.6 mL/hr use 50 mcg/mL	@ 0.8 mL/hr use 50 mcg/mL	@ 0.6 mL/hr use 100 mcg/mL	@ 0.6 mL/hr use 100 mcg/mL	@ 0.8 mL/hr use 100 mcg/mL	@ 1.0 mL/hr use 100 mcg/mL	@ 1.2 mL/hr use 100 mcg/mL	@ 1.6 mL/hr use 100 mcg/mL	@ 2.0 mL/hr use 100 mcg/mL
Norepi 0.1 - 2. mcg/kg/min *0.1 mg (100mcg) /mL concen starting dose; titrate up	@ 0.4 mL/hr use 50 mcg/mL	@ 0.5 mL/hr use 50 mcg/mL	@ 0.6 mL/hr use 50 mcg/mL	@ 0.8 mL/hr use 50 mcg/mL	@ 0.6 mL/hr use 100 mcg/mL	@ 0.6 mL/hr use 100 mcg/mL	@ 0.8 mL/hr use 100 mcg/mL	@ 1.0 mL/hr use 100 mcg/mL	@ 1.2 mL/hr use 100 mcg/mL	@ 1.6 mL/hr use 100 mcg/mL	@ 2.0 mL/hr use 100 mcg/mL
Lidocaine Drip 20-50 mcg/kg/min *4,000 mcg (4mg) /mL concen starting dose; titrate up	@ 0.9 mL/hr	@ 1.2 mL/hr	@ 1.5 mL/hr	@ 2 mL/hr	@ 2.5 mL/hr	@ 3 mL/hr	@ 4 mL/hr	@ 5 mL/hr	@ 7 mL/hr	@ 8 mL/hr	@ 10 mL/hr

Piggyback these small volumes into a patent flowing maintenance IV. The above infusions are calculated for the **lowest starting dose**. Titrate up as needed

\*Dopamine mix 400mg in 250mL D5W. \*Dobutamine mix 500mg in 250mL D5W. \*Epi mix 10mg in 100mL D5W. \*Norepi mix 10mg in 100mL D5W. \*Lidocaine mix 1gm in 250mL D5W.

#### EQUIPMENT / PROCEDURES

	Infant	Infant	Infant	Infant/Child	Infant/Child	Child	Child	Child	Child	Child	Child	Sm Adult
BP Cuff												
Bag-Valve-Mask	Infant/Child	Infant/Child	Infant/Child	Infant/Child	Infant/Child	Child	Child	Child	Child	Child	Child	Adult
Cardioversion 0.5-1 J / kg then up to 2 J / kg	3 / 6 J	4 / 8 J	5 / 10 J	7 / 14 J	9 / 18 J	10 / 20 J	13 / 26 J	16 / 32 J	20 / 40 J	25 / 50 J	32 / 64 J	
Defibrillation 2 J / kg then 4 J / kg	6 / 12 J	8 / 16 J	10 / 20 J	13 / 26 J	17 / 34 J	20 / 40 J	26 / 52 J	33 / 66 J	42 / 84 J	53 / 106 J	66 / 132 J	
ET Tube	3.5 no cuff	3.5 no cuff	3.5 no cuff	3.5 no cuff	3.5 no cuff	4.0 no cuff	4.5 no cuff	5.0 no cuff	5.5 no cuff	6.0 cuffed	6.5 cuffed	
ET Tube Depth	10-10.5 cm	10-10.5 cm	10-10.5 cm	10-10.5 cm	10-10.5 cm	11-12 cm	13.5 cm	14-15 cm	15.5 cm	17-18 cm	18.5-19.5 cm	
IO Needle Size	18 ga	18 ga	18 ga	18 ga	18 or 15	15 ga	15 ga	15 ga	15 ga	15 ga	15 ga	
IV Catheter Size	22-24 ga	22-24 ga	22-24 ga	22-24 ga	22-24 ga	20-24 ga	18-22 ga	18-22 ga	18-22 ga	18-20 ga	18-20 ga	
Laryngoscope Blade	Miller	Miller	Miller	Miller	Miller	Miller	Miller /Mac	Miller / Mac	Miller / Mac	Miller / Mac	Miller / Mac	
Laryngoscope Size	1	1	1	1	1	1	2	2	2	2	3	
LMA Size	1	1	1	1.5	1.5	2	2	2	2 - 2.5	2.5	3	
Nasal Airway	14 Fr	14 Fr	14 Fr	14 Fr	14 Fr	18 Fr	20 Fr	22 Fr	24 Fr	26 Fr	30 Fr	
NG Tube	5 - 8 Fr	5 - 8 Fr	5 - 8 Fr	5 - 8 Fr	5 - 8 Fr	8 - 10 Fr	10 Fr	10 Fr	12 - 14 Fr	14 - 18 Fr	18 Fr	
NRBM O <sub>2</sub> Mask	Pedi	Pedi	Pedi	Pedi	Pedi	Pedi	Pedi	Pedi	Pedi	Pedi	Pedi / Adult	
Oral Airway	50 mm	50 mm	50 mm	50 mm	50 mm	60 mm	60 mm	60 mm	70 mm	80 mm	80 mm	
Sytlette Size	6 Fr	6 Fr	6 Fr	6 Fr	6 Fr	6 Fr	6 Fr	6 Fr	14 Fr	14 Fr	14 Fr	
Suction Catheter	8 Fr	8 Fr	8 Fr	8 Fr	8 Fr	10 Fr	10 Fr	10 Fr	10 Fr	10 Fr	10 - 12 Fr	
Urinary Catheter Size	5 Fr	5 Fr	5 Fr	8 Fr	8 Fr	8 - 10 Fr	10 Fr	10 - 12 Fr	10 - 12 Fr	12 Fr	12 Fr	

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