



MICHIGAN

Medication Emergency Dosing  
and Intervention Cards

MI-MEDIC

Michigan Department of  
Community Health

Crime Victims, EMS & Trauma Systems Division

*Based on Michigan State EMS Protocols*



# MI-MEDIC



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- MI-MEDIC was developed by Western Michigan University Homer Stryker M.D. School of Medicine's Center for EMS, Disaster, and Operational Medicine. Comments on these cards should be sent to [MI-MEDIC@med.wmich.edu](mailto:MI-MEDIC@med.wmich.edu).
- **FREE REQUIRED TUTORIAL please go to: [AmericanCME .com](http://AmericanCME.com) (CE available)**



# MI-MEDIC Instructions



- **Pediatric Patients ( $\leq 14$  years old)**
  - Determine proper card to use (see back)
  - Select desired medication or intervention
  - Assure medication concentration is as specified
  - Administer volume of medication as directed
- **Adult Patients ( $> 14$  years old) – Black Cards**
  - Select desired medication or intervention
  - Assure medication concentration is as specified
  - Administer volume of medication as directed
- Some medications should be diluted as described.
- When possible, confirm medication dose and volume to be delivered with colleague
- Contact Medical Control for questions or concerns
- Note: Protocols are dynamic and regularly change. EMS personnel must be familiar with the most current set of approved protocols. More recent protocol revisions may supersede the information on these cards.



# MI-MEDIC Instructions



## Determining Proper Pediatric Card

Select the proper pediatric card to be used based on the following order:

1. If patient's actual weight is known, use card for that weight (do not confuse pounds and kilograms)
2. If patient's weight is not known, use approved length-based pediatric resuscitation tape to determine color of card
  - Measure from top of head to bottom of heel
3. If resuscitation tape not available, use patient's age to determine color of card
  - Estimate age if not known



# 3-5 kg (6-11 lbs) / 0-2 Months (Gray)

## CARDIAC RESUSCITATION



<u>Resuscitation Medication</u> <sup>1</sup>		<u>Dose</u>	<u>Volume</u>
Epinephrine 1:10,000 (1mg/10mL prefill) IV/IO q 3-5 min in arrest/brady <sup>5</sup>		0.05 mg	<b>0.5 mL</b>
Amiodarone (150mg/3mL) IV/IO for shock resistant V-Fib		25 mg	<b>0.5 mL</b>
*Lidocaine (100mg/5mL) IV/IO for wide-complex tachycardia		5 mg	<b>0.25 mL</b>
Atropine (1 mg/10mL) IV/IO for bradycardia unresponsive to Epi <sup>5</sup>		0.1 mg	<b>1 mL</b>
*Adenosine <sup>3</sup> (6mg/2mL) IV/IO 1 <sup>st</sup> Dose ( <b>Diluted</b> ) <sup>4</sup> for SVT <sup>3</sup>		0.5 mg	<b>0.5 mL<sup>4</sup></b>
*Adenosine <sup>3</sup> (6mg/2mL) IV/IO 2 <sup>nd</sup> Dose ( <b>Diluted</b> ) <sup>4</sup> for SVT <sup>3</sup>		1.0 mg	<b>1 mL<sup>4</sup></b>
<u>Electrical Therapy</u>		<u>Initial</u> <sup>2</sup>	<u>Repeat</u> <sup>2</sup>
Defibrillation (Prefer ped pads/Adult pads anterior/posterior)		<b>10 J</b>	<b>20 J</b>
*Synchronized Cardioversion <sup>3</sup> for unstable tachycardias		<b>5 J</b>	<b>10 J</b>
<u>Equipment</u>	OPA: <b>50mm</b> NPA: <b>14F</b> BVM: <b>Infant</b> Laryngoscope: <b>0-1 (straight)</b> ET Tube: <b>2.5 (cuffed)</b> ET Depth: <b>9-10 cm</b> <u>No ETI unless unable to ventilate</u>		
<u>Fluid Bolus</u>	Normal Saline <b>100 mL IV/IO</b> – May repeat x1 PRN ( <b>100 mL x1</b> )		

**\*CONTACT MEDICAL CONTROL** <sup>1</sup>Must confirm medication concentration is as specified  
<sup>2</sup>May adjust to closest available energy setting <sup>3</sup>SVT usually has HR >220  
<sup>4</sup>Dilute 2 ml of Adenosine with 4 mL NSS to produce 1 mg/mL <sup>5</sup>CPR if HR<60 after O<sub>2</sub>



# 3-5 kg (6-11 lbs) / 0-2 Months (Gray) CONDITIONS / MEDICATIONS



**Assessment**      **Normal Vitals:** HR: 100-180, RR: 30-60, SBP: 60-100.  
**Development:** Flexed position when prone. Inhibited grasp reflex

<u>Condition</u>	<u>Medication</u> <sup>1</sup>	<u>Dose</u>	<u>Volume</u>	<u>Medication</u> <sup>1</sup>	<u>Dose</u>	<u>Volume</u>
<b>Bronchospasm</b> <b>Anaphylaxis</b>	Albuterol Neb (2.5 mg/3 mL) +/- *Ipratropium Bromide (0.5 mg/2.5 mL) if wheezing	2.5 mg +/- 0.25 mg	<b>3 mL</b> +/- <b>1.25 mL*</b>	Epinephrine 1:1000 IM (1 mg/1 mL) <u>or</u> 1 EpiPen Jr IM	0.05 mg	<b>0.05 mL</b> <b>IM<sup>5</sup></b>
	Diphenhydramine IM/IV/IO (50 mg/mL) Dilute with 4 mL NSS = 10 mg/mL <sup>4</sup>	5 mg	<b>0.5 mL<sup>2</sup></b> <b>(diluted)</b>	Solumedrol IV/IO (125 mg/2 mL) Dilute with 3 mL NSS = 25 mg/mL	12.5 mg	<b>0.5 mL<sup>2</sup></b> <b>(diluted)</b>
<b>Seizure</b>	Midazolam IM (5 mg/1 mL) <b>Give 1<sup>st</sup> if no IV</b>	0.5 mg	<b>0.1 mL</b> <b>IM</b>	*Diazepam PR (10 mg/2 mL)	2 mg	<b>0.4 mL</b> <b>PR</b>
	*Midazolam IV <b>slow</b> (5 mg/1 mL) Dilute with 4 mL NSS = 1 mg/mL	0.3 mg	<b>0.3 mL<sup>2</sup></b> <b>(diluted)</b>	*Diazepam IV <b>slow</b> (10 mg/2 mL) Dilute with 8 mL NSS = 1 mg/mL	0.4 mg	<b>0.4 mL<sup>2</sup></b> <b>(diluted)</b>
<b>Hypoglycemia</b> (<40 mg/dL)	12.5 mL D50 diluted with 37.5 mL NSS to make D12.5	2.5 g	<b>20 mL<sup>2</sup></b> <b>(diluted)</b>	*Glucagon IM (1 mg/mL)	0.5 mg	<b>0.5 mL</b> <b>IM</b>
<b>Pain Control</b>	*Fentanyl IV (100 mcg/2 mL) Dilute with 8 mL NSS = 10 mcg/mL	5 mcg	<b>0.5 mL<sup>2</sup></b> <b>(diluted)</b>	*Morphine IV/IM/IO (10 mg/mL) Dilute with 9 mL NSS = 1 mg/1 mL	0.25 mg	<b>.25 mL<sup>2</sup></b> <b>(diluted)</b>
	*Fentanyl IN (100 mcg/2 mL)	10 mcg	<b>0.2 mL</b> <b>IN<sup>3</sup></b>			
<b>Narcotic OD</b>	Naloxone IV/IM (2 mg/2 mL)	0.5 mg	<b>0.5 mL</b>	*Naloxone IN (2 mg/2 mL)	0.5 mg	<b>0.5 mL<sup>3</sup></b>
<b>Fluid Bolus</b>	Normal Saline <b>100 mL IV/IO</b> – May repeat x1 PRN ( <b>100 mL x1</b> )					

\*Per local MCA protocol    <sup>1</sup>Must confirm medication concentration is as specified    <sup>2</sup>Volume after dilution with Normal Saline  
<sup>3</sup>Divide dose equally between both nostrils    <sup>4</sup>For anaphylaxis only    <sup>5</sup>For severe symptoms only



# 6-7 kg (13-15 lbs) / 3-6 Months (Pink)

## CARDIAC RESUSCITATION



<u>Resuscitation Medication</u> <sup>1</sup>	<u>Dose</u>	<u>Volume</u>
Epinephrine 1:10,000 (1mg/10mL prefill) IV/IO q 3-5 min for arrest/brady <sup>5</sup>	0.1 mg	<b>1 mL</b>
Amiodarone (150mg/3mL) IV/IO for shock resistant V-Fib	35 mg	<b>0.7 mL</b>
*Lidocaine (100mg/5mL) IV/IO for wide-complex tachycardia	8 mg	<b>0.4 mL</b>
Atropine (1 mg/10mL) IV/IO for bradycardia unresponsive to Epi <sup>5</sup>	0.15 mg	<b>1.5 mL</b>
*Adenosine <sup>3</sup> (6mg/2mL) IV/IO 1 <sup>st</sup> Dose ( <b>Diluted</b> ) <sup>4</sup> for SVT <sup>3</sup>	0.7 mg	<b>0.7 mL<sup>4</sup></b>
*Adenosine <sup>3</sup> (6mg/2mL) IV/IO 2 <sup>nd</sup> Dose ( <b>Diluted</b> ) <sup>4</sup> for SVT <sup>4</sup>	1.4 mg	<b>1.4 mL<sup>4</sup></b>
<u>Electrical Therapy</u>	<u>Initial</u> <sup>2</sup>	<u>Repeat</u> <sup>2</sup>
Defibrillation (Prefer ped pads/Adult pads anterior/posterior)	<b>15 J</b>	<b>30 J</b>
*Synchronized Cardioversion <sup>3</sup> for unstable tachycardias	<b>10 J</b>	<b>15 J</b>
<u>Equipment</u>	OPA: <b>50mm</b> NPA: <b>14F</b> BVM: <b>Infant</b> Laryngoscope: <b>1 (straight)</b> ET Tube: <b>3.0 (cuffed)</b> ET Depth: <b>10.5 cm</b> <u>No ETI unless unable to ventilate</u>	
<u>Fluid Bolus</u>	Normal Saline <b>130 mL IV/IO</b> – May repeat x1 PRN ( <b>130 mL x1</b> )	

**\*CONTACT MEDICAL CONTROL** <sup>1</sup>Must confirm medication concentration is as specified  
<sup>2</sup>May adjust to closest available energy setting <sup>3</sup>SVT usually has HR >220  
<sup>4</sup>Dilute 2 ml of Adenosine with 4 mL NSS to produce 1 mg/mL <sup>5</sup>CPR if HR<60 after O<sub>2</sub>



# 6-7 kg (13-15 lbs) / 3-6 Months (Pink) CONDITIONS / MEDICATIONS



## Assessment

**Normal Vitals:** HR: 100-180, RR: 30-45, SBP: 65-100, BG >50 mg/dl

**Development:** (6 months) Rolls from front to back, back to side. Carries object to mouth

<u>Condition</u>	<u>Medication</u> <sup>1</sup>	<u>Dose</u>	<u>Volume</u>	<u>Medication</u> <sup>1</sup>	<u>Dose</u>	<u>Volume</u>
<b>Bronchospasm Anaphylaxis</b>	Albuterol Neb (2.5 mg/3 mL) +/- *Ipratropium Bromide (0.5 mg/2.5 mL) if wheezing	2.5 mg +/- 0.25 mg	<b>3 mL</b> +/- <b>1.25 mL*</b>	Epinephrine 1:1000 IM (1 mg/1 mL) <u>or</u> 1 EpiPen Jr IM	0.1 mg	<b>0.1 mL</b> <b>IM<sup>5</sup></b>
	Diphenhydramine IM/IV/IO (50 mg/mL) Dilute with 4 mL NSS = 10 mg/mL <sup>4</sup>	10 mg	<b>1 mL<sup>2</sup></b> <b>(diluted)</b>	Solumedrol IV/IO (125 mg/2 mL) Dilute with 3 mL NSS = 25 mg/mL	12.5 mg	<b>0.5 mL<sup>2</sup></b> <b>(diluted)</b>
<b>Seizure</b>	Midazolam IM (5 mg/1 mL) <b>Give 1<sup>st</sup> if no IV</b>	1 mg	<b>0.2 mL</b> <b>IM</b>	*Diazepam PR (10 mg/2 mL)	3 mg	<b>0.6 mL</b> <b>PR</b>
	*Midazolam IV <b>slow</b> (5 mg/1 mL) Dilute with 4 mL NSS = 1 mg/mL	0.4 mg	<b>0.4 mL<sup>2</sup></b> <b>(diluted)</b>	*Diazepam IV <b>slow</b> (10 mg/2 mL) Dilute with 8 mL NSS = 1 mg/mL	0.6 mg	<b>0.6 mL<sup>2</sup></b> <b>(diluted)</b>
<b>Hypoglycemia</b> (<40 mg/dL)	Dextrose 25% Slow IV Dilute D50 1:1 with NSS	3.25 g	<b>13 mL</b> <b>(D25)</b>	*Glucagon IM (1 mg/mL)	0.5 mg	<b>0.5 mL</b> <b>IM</b>
<b>Pain Control</b>	*Fentanyl IV (100 mcg/2 mL) Dilute with 8 mL NSS = 10 mcg/mL	7 mcg	<b>0.7 mL<sup>2</sup></b> <b>(diluted)</b>	*Morphine IV/IM/IO (10 mg/mL) Dilute with 9 mL NSS = 1 mg/1 mL	0.3 mg	<b>0.3 mL<sup>2</sup></b> <b>(diluted)</b>
	*Fentanyl IN (100 mcg/2 mL)	15 mcg	<b>0.3 mL</b> <b>IN<sup>3</sup></b>			
<b>Narcotic OD</b>	Naloxone IV/IM (2 mg/2 mL)	0.7 mg	<b>0.7 mL</b>	*Naloxone IN (2 mg/2 mL)	0.7 mg	<b>0.7 mL<sup>3</sup></b>
<b>Fluid Bolus</b>	Normal Saline <b>130 mL IV/IO</b> – May repeat x1 PRN ( <b>130 mL x1</b> )					

\*Per local MCA protocol <sup>1</sup>Must confirm medication concentration is as specified <sup>2</sup>Volume after dilution with Normal Saline

<sup>3</sup>Divide dose equally between both nostrils <sup>4</sup>For anaphylaxis only <sup>5</sup>For severe symptoms only





# 8-9 kg (17-20 lbs) / 7-10 Months (Red) CARDIAC RESUSCITATION



<u>Resuscitation Medication</u> <sup>1</sup>	<u>Dose</u>	<u>Volume</u>
Epinephrine 1:10,000 (1mg/10mL prefill) q 3-5 min for arrest/brady <sup>5</sup>	0.1 mg	<b>1 mL</b>
Amiodarone (150mg/3mL) for shock resistant V-Fib	50 mg	<b>1 mL</b>
*Lidocaine (100mg/5mL) for wide-complex tachycardia	10 mg	<b>0.5 mL</b>
Atropine (1 mg/10mL) for bradycardia unresponsive to Epi <sup>5</sup>	0.2 mg	<b>2 mL</b>
*Adenosine <sup>3</sup> (6mg/2mL) 1 <sup>st</sup> Dose ( <b>Diluted</b> ) <sup>4</sup> for SVT <sup>3</sup>	1 mg	<b>1 mL<sup>4</sup></b>
*Adenosine <sup>3</sup> (6mg/2mL) 2 <sup>nd</sup> Dose ( <b>Diluted</b> ) <sup>4</sup> for SVT <sup>3</sup>	2 mg	<b>2 mL<sup>4</sup></b>
<u>Electrical Therapy</u>	<u>Initial</u> <sup>2</sup>	<u>Repeat</u> <sup>2</sup>
Defibrillation (Prefer ped pads/Adult pads anterior/posterior)	<b>20 J</b>	<b>40 J</b>
*Synchronized Cardioversion <sup>3</sup> for unstable tachycardias	<b>10 J</b>	<b>20 J</b>

<u>Equipment</u>	OPA: <b>50mm</b> NPA: <b>14F</b> BVM: <b>Infant</b> Laryngoscope: <b>1 (straight)</b> ET Tube: <b>3.0</b> (cuffed) ET Depth: <b>11 cm</b> <i>No ETI unless unable to ventilate</i>
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<u>Fluid Bolus</u>	Normal Saline <b>170 mL IV/IO</b> – May repeat x1 PRN ( <b>170 mL x1</b> )
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**\*CONTACT MEDICAL CONTROL** <sup>1</sup>Must confirm medication concentration is as specified  
<sup>2</sup>May adjust to closest available energy setting <sup>3</sup>SVT usually has HR >220  
<sup>4</sup>Dilute 2 ml of Adenosine with 4 mL NSS to produce 1 mg/mL <sup>5</sup>CPR if HR<60 after O<sub>2</sub>



# 8-9 kg (17-20 lbs) / 7-10 Months (Red) CONDITIONS / MEDICATIONS



## Assessment

**Normal Vitals:** HR: 100-180, RR: 25-35, SBP: 70-110

**Development:** (9 months) Sits steady, creeps or crawls. Holds objects in both hands, bangs together.

Condition	Medication <sup>1</sup>	Dose	Volume	Medication <sup>1</sup>	Dose	Volume
Bronchospasm Anaphylaxis	Albuterol Neb (2.5 mg/3 mL) +/- *Ipratropium Bromide (0.5 mg/2.5 mL) if wheezing	2.5 mg +/- 0.25 mg	<b>3 mL</b> +/- <b>1.25 mL*</b>	Epinephrine 1:1000 IM (1 mg/1 mL) <u>or</u> 1 EpiPen Jr IM	0.1 mg	<b>0.1 mL</b> <b>IM<sup>5</sup></b>
	Diphenhydramine IM/IV/IO (50 mg/mL) Dilute with 4 mL NSS = 10 mg/mL <sup>4</sup>	10 mg	<b>1 mL<sup>2</sup></b> <b>(diluted)</b>	Solumedrol IV/IO (125 mg/2 mL) Dilute with 3 mL NSS = 25 mg/mL	17.5 mg	<b>0.7 mL<sup>2</sup></b> <b>(diluted)</b>
Seizure	Midazolam IM (5 mg/1 mL) <b>Give 1<sup>st</sup> if no IV</b>	1 mg	<b>0.2 mL</b> <b>IM</b>	*Diazepam PR (10 mg/2 mL)	4 mg	<b>0.8 mL</b> <b>PR</b>
	*Midazolam IV <b>slow</b> (5 mg/1 mL) Dilute with 4 mL NSS = 1 mg/mL	0.5 mg	<b>0.5 mL<sup>2</sup></b> <b>(diluted)</b>	*Diazepam IV <b>slow</b> (10 mg/2 mL) Dilute with 8 mL NSS = 1 mg/mL	0.8 mg	<b>0.8 mL<sup>2</sup></b> <b>(diluted)</b>
Hypoglycemia (<40 mg/dL)	Dextrose 25% Slow IV Dilute D50 1:1 with NSS	4.25 g	<b>17 mL</b> <b>(D25)</b>	*Glucagon IM (1 mg/mL)	0.5 mg	<b>0.5 mL</b> <b>IM</b>
Pain Control	*Fentanyl IV (100 mcg/2 mL) Dilute with 8 mL NSS = 10 mcg/mL	10 mcg	<b>1 mL<sup>2</sup></b> <b>(diluted)</b>	*Morphine IV/IM/IO (10 mg/mL) Dilute with 9 mL NSS = 1 mg/1 mL	0.4 mg	<b>0.4 mL<sup>2</sup></b> <b>(diluted)</b>
	*Fentanyl IN (100 mcg/2 mL)	20 mcg	<b>0.4 mL</b> <b>IN<sup>3</sup></b>			
Narcotic OD	Naloxone IV/IM (2 mg/2 mL)	1 mg	<b>1 mL</b>	*Naloxone IN (2 mg/2 mL)	1 mg	<b>1 mL<sup>3</sup></b>
Fluid Bolus	Normal Saline <b>170 mL IV/IO</b> – May repeat x1 PRN ( <b>170 mL x1</b> )					

\*Per local MCA protocol <sup>1</sup>Must confirm medication concentration is as specified <sup>2</sup>Volume after dilution with Normal Saline  
<sup>3</sup>Divide dose equally between both nostrils <sup>4</sup>For anaphylaxis only <sup>5</sup>For severe symptoms only



10-11 kg (22-24 lbs) / 11-18 Months (Purple)

# CARDIAC RESUSCITATION



<u>Resuscitation Medication</u> <sup>1</sup>		<u>Dose</u>	<u>Volume</u>
Epinephrine 1:10,000 (1mg/10mL prefill) q 3-5 min for arrest/brady <sup>5</sup>		0.1 mg	1 mL
Amiodarone (150mg/3mL) for shock resistant V-Fib		50 mg	1 mL
*Lidocaine (100mg/5mL) for wide-complex tachycardia		10 mg	0.5 mL
Atropine (1 mg/10mL) for bradycardia unresponsive to Epi <sup>5</sup>		0.2 mg	2 mL
*Adenosine <sup>3</sup> (6mg/2mL) 1 <sup>st</sup> Dose ( <b>Diluted</b> ) <sup>4</sup> for SVT <sup>3</sup>		1 mg	1 mL <sup>4</sup>
*Adenosine <sup>3</sup> (6mg/2mL) 2 <sup>nd</sup> Dose ( <b>Diluted</b> ) <sup>4</sup> for SVT <sup>3</sup>		2 mg	2 mL <sup>4</sup>
<u>Electrical Therapy</u>		<u>Initial</u> <sup>2</sup>	<u>Repeat</u> <sup>2</sup>
Defibrillation (Prefer ped pads/Adult pads anterior/posterior)		20 J	40 J
*Synchronized Cardioversion <sup>3</sup> for unstable tachycardias		10 J	20 J
<u>Equipment</u>	OPA: <b>60mm</b> NPA: <b>18F</b> BVM: <b>Child</b> Laryngoscope: <b>1 (straight)</b> ET Tube: <b>3.5 (cuffed)</b> ET Depth: <b>12.0 cm</b> <u>No ETI unless unable to ventilate</u>		
<u>Fluid Bolus</u>	Normal Saline <b>200 mL IV/IO</b> – May repeat x1 PRN ( <b>200 mL x1</b> )		

\*CONTACT MEDICAL CONTROL <sup>1</sup>Must confirm medication concentration is as specified  
<sup>2</sup>May adjust to closest available energy setting <sup>3</sup>SVT usually has HR >220  
<sup>4</sup>Dilute 2 ml of Adenosine with 4 mL NSS to produce 1 mg/mL <sup>5</sup>CPR if HR<60 after O<sub>2</sub>



# 10-11 kg (22-24 lbs) / 11-18 Months (Purple) CONDITIONS / MEDICATIONS



**Assessment**      **Normal Vitals:** HR: 80-160, RR: 20-30, SBP: 72-110.      **Development:** (12 mos) Cruises well. Bangs 2 blocks together. (15-18 mos) Pushes and pulls toys. Uses cup well. Some spoon agility.

<u>Condition</u>	<u>Medication</u> <sup>1</sup>	<u>Dose</u>	<u>Volume</u>	<u>Medication</u> <sup>1</sup>	<u>Dose</u>	<u>Volume</u>
<b>Bronchospasm Anaphylaxis</b>	Albuterol Neb (2.5 mg/3 mL) +/- *Ipratropium Bromide (0.5 mg/2.5 mL) if wheezing	2.5 mg +/- 0.5 mg	<b>3 mL</b> +/- <b>2.5 mL*</b>	Epinephrine 1:1000 IM (1 mg/1 mL) <u>or</u> 1 EpiPen Jr IM	0.1 mg	<b>0.1 mL</b> <b>IM<sup>5</sup></b>
	Diphenhydramine IM/IV/IO (50 mg/mL) Dilute with 4 mL NSS = 10 mg/mL	15 mg	<b>1.5 mL<sup>2</sup></b> <b>(diluted)</b>	Solumedrol IV/IO (125 mg/2 mL) Dilute with 3 mL NSS = 25 mg/mL	20 mg	<b>0.8 mL<sup>2</sup></b> <b>(diluted)</b>
<b>Seizure</b>	Midazolam IM (5 mg/1 mL) <b>Give 1<sup>st</sup> if no IV</b>	1 mg	<b>0.2 mL</b> <b>IM</b>	*Diazepam PR (10 mg/2 mL)	5 mg	<b>1 mL</b> <b>PR</b>
	*Midazolam IV <b>slow</b> (5 mg/1 mL) Dilute with 4 mL NSS = 1 mg/mL	0.5 mg	<b>0.5 mL<sup>2</sup></b> <b>(diluted)</b>	*Diazepam IV <b>slow</b> (10 mg/2 mL) Dilute with 8 mL NSS = 1 mg/mL	1 mg	<b>1 mL<sup>2</sup></b> <b>(diluted)</b>
<b>Hypoglycemia</b> (<60 mg/dL)	Dextrose 25% Slow IV Dilute D50 1:1 with NSS	5.25 g	<b>21 mL</b> <b>(D25)</b>	*Glucagon IM (1 mg/mL)	0.5 mg	<b>0.5 mL</b> <b>IM</b>
<b>Pain Control</b>	*Fentanyl IV (100 mcg/2 mL) Dilute with 8 mL NSS = 10 mcg/mL	10 mcg	<b>1 mL<sup>2</sup></b> <b>(diluted)</b>	*Morphine IV/IM/IO (10 mg/mL) Dilute with 9 mL NSS = 1 mg/1 mL	0.5 mg	<b>0.5 mL<sup>2</sup></b> <b>(diluted)</b>
	*Fentanyl IN (100 mcg/2 mL)	20 mcg	<b>0.4 mL</b> <b>IN<sup>3</sup></b>			
<b>Narcotic OD</b>	Naloxone IV/IM (2 mg/2 mL)	1 mg	<b>1 mL</b>	*Naloxone IN (2 mg/2 mL)	1 mg	<b>1 mL<sup>3</sup></b>
<b>Fluid Bolus</b>	Normal Saline <b>200 mL IV/IO</b> – May repeat x1 PRN ( <b>200 mL x1</b> )					

\*Per local MCA protocol    <sup>1</sup>Must confirm medication concentration is as specified    <sup>2</sup>Volume after dilution with Normal Saline  
<sup>3</sup>Divide dose equally between both nostrils    <sup>4</sup>For anaphylaxis only    <sup>5</sup>For severe symptoms only



# 12-14 kg (26-31 lbs) / 19-35 months (Yellow) CARDIAC RESUSCITATION



<u>Resuscitation Medication</u> <sup>1</sup>		<u>Dose</u>	<u>Volume</u>
Epinephrine 1:10,000 (1mg/10mL prefill) q 3-5 min for arrest/brady <sup>5</sup>		0.15 mg	1.5 mL
Amiodarone (150mg/3mL) for shock resistant V-Fib		75 mg	1.5 mL
*Lidocaine (100mg/5mL) for wide-complex tachycardia		14 mg	0.7 mL
Atropine (1 mg/10mL) for bradycardia unresponsive to Epi <sup>5</sup>		0.25 mg	2.5 mL
*Adenosine <sup>3</sup> (6mg/2mL) 1 <sup>st</sup> Dose ( <b>Diluted</b> ) <sup>4</sup> for SVT <sup>3</sup>		1.5 mg	1.5 mL <sup>4</sup>
*Adenosine <sup>3</sup> (6mg/2mL) 2 <sup>nd</sup> Dose ( <b>Diluted</b> ) <sup>4</sup> for SVT <sup>3</sup>		3 mg	3 mL <sup>4</sup>
<u>Electrical Therapy</u>		<u>Initial</u> <sup>2</sup>	<u>Repeat</u> <sup>2</sup>
Defibrillation (Prefer ped pads/Adult pads anterior/posterior)		25 J	50 J
*Synchronized Cardioversion <sup>3</sup> for unstable tachycardias		15 J	30 J
<u>Equipment</u>	OPA: <b>60mm</b> NPA: <b>20F</b> BVM: <b>Child</b> Laryngoscope: <b>2 (straight/curved)</b> ET Tube: <b>4.0 (cuffed)</b> ET Depth: <b>13 cm</b> <u>No ETI unless unable to ventilate</u>		
<u>Fluid Bolus</u>	Normal Saline <b>250 mL IV/IO</b> – May repeat x1 PRN ( <b>250 mL x1</b> )		

**\*CONTACT MEDICAL CONTROL** <sup>1</sup>Must confirm medication concentration is as specified  
<sup>2</sup>May adjust to closest available energy setting <sup>3</sup>SVT usually has HR >220  
<sup>4</sup>Dilute 2 ml of Adenosine with 4 mL NSS to produce 1 mg/mL <sup>5</sup>CPR if HR<60 after O<sub>2</sub>



12-14 kg (26-31 lbs) / 19-35 Months (Yellow)

# CONDITIONS / MEDICATIONS



## Assessment

**Normal Vitals:** HR: 80-130, RR: 20-30, SBP: 74-110.

**Development:** (2 years) Runs well with wide stance. Turns door knob. Unscrews lid.

<u>Condition</u>	<u>Medication</u> <sup>1</sup>	<u>Dose</u>	<u>Volume</u>		<u>Medication</u> <sup>1</sup>	<u>Dose</u>	<u>Volume</u>
<b>Bronchospasm Anaphylaxis</b>	Albuterol Neb (2.5 mg/3 mL) +/- *Ipratropium Bromide (0.5 mg/2.5 mL) if wheezing	2.5 mg +/- 0.5 mg	<b>3 mL</b> +/- <b>2.5 mL*</b>		Epinephrine 1:1000 IM (1 mg/1 mL) <u>or</u> 1 EpiPen Jr IM	0.15 mg	<b>0.15 mL</b> <b>IM<sup>5</sup></b>
	Diphenhydramine IM/IV/IO (50 mg/mL) Dilute with 4 mL NSS = 10 mg/mL	15 mg	<b>1.5 mL<sup>2</sup></b> <b>(diluted)</b>		Solumedrol IV/IO (125 mg/2 mL) Dilute with 3 mL NSS = 25 mg/mL	25 mg	<b>1 mL<sup>2</sup></b> <b>(diluted)</b>
<b>Seizure</b>	Midazolam IM (5 mg/1 mL) <b>Give 1<sup>st</sup> if no IV</b>	1.5 mg	<b>0.3 mL</b> <b>IM</b>		*Diazepam PR (10 mg/2 mL)	6.5 mg	<b>1.3 mL</b> <b>PR</b>
	*Midazolam IV <b>slow</b> (5 mg/1 mL) Dilute with 4 mL NSS = 1 mg/mL	0.7 mg	<b>0.7 mL<sup>2</sup></b> <b>(diluted)</b>		*Diazepam IV <b>slow</b> (10 mg/2 mL) Dilute with 8 mL NSS = 1 mg/mL	0.6 mg	<b>0.6 mL<sup>2</sup></b> <b>(diluted)</b>
<b>Hypoglycemia</b> (<60 mg/dL)	Dextrose 25% Slow IV Dilute D50 1:1 with NSS	6.5 g	<b>26 mL</b> <b>(D25)</b>		*Glucagon IM (1 mg/mL)	0.5 mg	<b>0.5 mL</b>
<b>Pain Control</b>	*Fentanyl IV (100 mcg/2 mL) Dilute with 8 mL NSS = 10 mcg/mL	15 mcg	<b>1.5 mL<sup>2</sup></b> <b>(diluted)</b>		*Morphine IV/IM/IO (10 mg/mL) Dilute with 9 mL NSS = 1 mg/1 mL	0.6 mg	<b>0.6 mL<sup>2</sup></b> <b>(diluted)</b>
	*Fentanyl IN (100 mcg/2 mL)	30 mcg	<b>0.6 mL</b> <b>IN<sup>3</sup></b>				
<b>Narcotic OD</b>	Naloxone IV/IM (2 mg/2 mL)	1.3 mg	<b>1.3 mL</b>		*Naloxone IN (2 mg/2 mL)	1.3 mg	<b>1.3 mL<sup>3</sup></b>
<b>Fluid Bolus</b>	Normal Saline <b>250 mL IV/IO</b> – May repeat x1 PRN ( <b>250 mL x1</b> )						

\*Per local MCA protocol <sup>1</sup>Must confirm medication concentration is as specified <sup>2</sup>Volume after dilution with Normal Saline

<sup>3</sup>Divide dose equally between both nostrils <sup>4</sup>For anaphylaxis only <sup>5</sup>For severe symptoms only



# 15-18 kg (33-40 lbs) / 3-4 Years (White)

## CARDIAC RESUSCITATION



<u>Resuscitation Medication</u> <sup>1</sup>	<u>Dose</u>	<u>Volume</u>
Epinephrine 1:10,000 (1mg/10mL prefill) q 3-5 min for arrest/brady <sup>5</sup>	0.2 mg	<b>2 mL</b>
Amiodarone (150mg/3mL) for shock resistant V-Fib	100 mg	<b>2 mL</b>
*Lidocaine (100mg/5mL) for wide-complex tachycardia	20 mg	<b>1 mL</b>
Atropine (1 mg/10mL) for bradycardia unresponsive to Epi <sup>5</sup>	0.35 mg	<b>3.5 mL</b>
*Adenosine <sup>3</sup> (6mg/2mL) 1 <sup>st</sup> Dose ( <b>Diluted</b> ) <sup>4</sup> for SVT <sup>3</sup>	2 mg	<b>2 mL<sup>4</sup></b>
*Adenosine <sup>3</sup> (6mg/2mL) 2 <sup>nd</sup> Dose ( <b>Diluted</b> ) <sup>4</sup> for SVT <sup>3</sup>	4 mg	<b>4 mL<sup>4</sup></b>
<u>Electrical Therapy</u>	<u>Initial</u> <sup>2</sup>	<u>Repeat</u> <sup>2</sup>
Defibrillation (Prefer ped pads/Adult pads anterior/posterior)	<b>40 J</b>	<b>80 J</b>
*Synchronized Cardioversion <sup>3</sup> for unstable tachycardias	<b>20 J</b>	<b>40 J</b>
<u>Equipment</u>	OPA: <b>60mm</b> NPA: <b>22F</b> BVM: <b>Child</b> Laryngoscope: <b>2 (straight/curved)</b> ET Tube: <b>4.5 (cuffed)</b> ET Depth: <b>15.0 cm</b> <u>No ETI unless unable to ventilate</u>	
<u>Fluid Bolus</u>	Normal Saline <b>300 mL IV/IO</b> – May repeat x1 PRN ( <b>300 mL x1</b> )	

**\*CONTACT MEDICAL CONTROL** <sup>1</sup>Must confirm medication concentration is as specified

<sup>2</sup>May adjust to closest available energy setting <sup>3</sup>SVT usually has HR >220

<sup>4</sup>Dilute 2 ml of Adenosine with 4 mL NSS to produce 1 mg/mL <sup>5</sup>CPR if HR<60 after O<sub>2</sub>



# 15-18 kg (33-40 lbs) / 3-4 Years (White) CONDITIONS / MEDICATIONS



## Assessment

**Normal Vitals:** HR: 80-120, RR: 20-30, SBP: 76-110.

**Development:** (3 years) Climbs stairs alternating feet. Copies circles and cross.

<u>Condition</u>	<u>Medication<sup>1</sup></u>	<u>Dose</u>	<u>Volume</u>	<u>Medication<sup>1</sup></u>	<u>Dose</u>	<u>Volume</u>
<b>Bronchospasm Anaphylaxis</b>	Albuterol Neb (2.5 mg/3 mL) + Ipratropium Bromide (0.5 mg/2.5 mL) if wheezing	2.5 mg +/- 0.5 mg	<b>3 mL</b> +/- <b>2.5 mL*</b>	Epinephrine 1:1000 IM (1 mg/1 mL) <u>or</u> 1 EpiPen Jr IM	0.15 mg	<b>0.15 mL</b> <b>IM<sup>5</sup></b>
	Diphenhydramine IM/IV/IO (50 mg/mL) Dilute with 4 mL NSS = 10 mg/mL <sup>4</sup>	20 mg	<b>2 mL<sup>2</sup></b> <b>(diluted)</b>	Solumedrol IV/IO (125 mg/2 mL) Do not dilute	~31 mg	<b>0.5 mL</b>
<b>Seizure</b>	Midazolam IM (5 mg/1 mL) <b>Give 1<sup>st</sup> if no IV</b>	1.5 mg	<b>0.3 mL</b> <b>IM</b>	*Diazepam PR (10 mg/2 mL)	8 mg	<b>1.6 mL</b> <b>PR</b>
	*Midazolam IV <b>slow</b> (5 mg/1 mL) Dilute with 4 mL NSS = 1 mg/mL	1 mg	<b>1 mL<sup>2</sup></b> <b>(diluted)</b>	*Diazepam IV <b>slow</b> (10 mg/2 mL) Dilute with 8 mL NSS = 1 mg/mL	1.6 mg	<b>1.6 mL<sup>2</sup></b> <b>(diluted)</b>
<b>Hypoglycemia</b> (<60 mg/dL)	Dextrose 25% Slow IV Dilute D50 1:1 with NSS	8.25 g	<b>33 mL</b> <b>(D25)</b>	*Glucagon IM (1 mg/mL)	0.5 mg	<b>0.5 mL</b> <b>IM</b>
<b>Pain Control</b>	*Fentanyl IV (100 mcg/2 mL) Dilute with 8 mL NSS = 10 mcg/mL	15 mcg	<b>1.5 mL<sup>2</sup></b> <b>(diluted)</b>	*Morphine IV/IM/IO (10 mg/mL) Dilute with 9 mL NSS = 1 mg/1 mL	0.8 mg	<b>0.8 mL<sup>2</sup></b> <b>(diluted)</b>
	*Fentanyl IN (100 mcg/2 mL)	30 mcg	<b>0.6 mL</b> <b>IN<sup>3</sup></b>			
<b>Narcotic OD</b>	Naloxone IV/IM (2 mg/2 mL)	1.6 mg	<b>1.6 mL</b>	*Naloxone IN (2 mg/2 mL)	1.6 mg	<b>1.6 mL<sup>3</sup></b>
<b>Fluid Bolus</b>	Normal Saline <b>300 mL IV/IO</b> – May repeat x1 PRN ( <b>300 mL x1</b> )					

\*Per local MCA protocol <sup>1</sup>Must confirm medication concentration is as specified <sup>2</sup>Volume after dilution with Normal Saline

<sup>3</sup>Divide dose equally between both nostrils <sup>4</sup>For anaphylaxis only <sup>5</sup>For severe symptoms only





# 19-22 kg (42-49 lbs) / 5-6 Years (Blue)

## CARDIAC RESUSCITATION



<u>Resuscitation Medication</u> <sup>1</sup>	<u>Dose</u>	<u>Volume</u>
Epinephrine 1:10,000 (1mg/10mL prefill) q 3-5 min for arrest/brady <sup>4</sup>	0.2 mg	<b>2 mL</b>
Amiodarone (150mg/3mL) for shock resistant V-Fib	100 mg	<b>2 mL</b>
*Lidocaine (100mg/5mL) for wide-complex tachycardia	20 mg	<b>1 mL</b>
Atropine (1 mg/10mL) for bradycardia unresponsive to Epi <sup>4</sup>	0.4 mg	<b>4 mL</b>
*Adenosine <sup>3</sup> (6mg/2mL) – 1 <sup>st</sup> Dose (10 mL NSS flush) for SVT <sup>3</sup>	2.1 mg	<b>0.7 mL</b>
*Adenosine <sup>3</sup> (6mg/2mL) – 2 <sup>nd</sup> Dose (10 mL NSS flush) for SVT <sup>3</sup>	4.2 mg	<b>1.4 mL</b>
<u>Electrical Therapy</u>	<u>Initial</u> <sup>2</sup>	<u>Repeat</u> <sup>2</sup>
Defibrillation (Prefer ped pads/Adult pads anterior/posterior)	<b>40 J</b>	<b>80 J</b>
*Synchronized Cardioversion <sup>3</sup> for unstable tachycardias	<b>20 J</b>	<b>40 J</b>
<u>Equipment</u>	OPA: <b>70mm</b> NPA: <b>24F</b> BVM: <b>Child</b> Laryngoscope: <b>2 (curved/straight)</b> ET Tube: <b>5.0</b> (cuffed) ET Depth: <b>16 cm</b> <u>No ETI unless unable to ventilate</u>	
<u>Fluid Bolus</u>	Normal Saline <b>400 mL IV/IO</b> – May repeat x1 PRN ( <b>400 mL x1</b> )	

**\*CONTACT MEDICAL CONTROL** <sup>1</sup>Must confirm medication concentration is as specified  
<sup>2</sup>May adjust to closest available energy setting <sup>3</sup>SVT usually has HR >220  
<sup>4</sup>CPR if HR < 60 after O<sub>2</sub>



# 19-22 kg (42-49 lbs) / 5-6 Years (Blue) CONDITIONS / MEDICATIONS



**Assessment**      **Normal Vitals:** HR: 70-110, RR: 18-24, SBP: 80-110  
**Development:** (5 years) Skips alternating feet. Copies some letters.

<u>Condition</u>	<u>Medication</u> <sup>1</sup>	<u>Dose</u>	<u>Volume</u>	<u>Medication</u> <sup>1</sup>	<u>Dose</u>	<u>Volume</u>
<b>Bronchospasm</b> <b>Anaphylaxis</b>	Albuterol Neb (2.5 mg/3 mL) +/- *Ipratropium Bromide (0.5 mg/2.5 mL) if wheezing	2.5 mg +/- 0.5 mg	<b>3 mL</b> +/- <b>2.5 mL*</b>	Epinephrine 1:1000 IM (1 mg/1 mL) <u>or</u> 1 EpiPen Jr IM	0.15 mg	<b>0.15 mL</b> <b>IM<sup>5</sup></b>
	Diphenhydramine IM/IV/IO (50 mg/mL) Dilute with 4 mL NSS = 10 mg/mL <sup>4</sup>	25 mg	<b>2.5 mL<sup>2</sup></b> <b>(diluted)</b>	Solumedrol IV/IO (125 mg/2 mL) Do not dilute	~44 mg	<b>0.7 mL</b>
<b>Seizure</b>	Midazolam IM (5 mg/1 mL) <b>Give 1<sup>st</sup> if no IV</b>	2 mg	<b>0.4 mL</b> <b>IM</b>	*Diazepam PR (10 mg/2 mL)	10 mg	<b>2 mL</b> <b>PR</b>
	*Midazolam IV <b>slow</b> (5 mg/1 mL) Dilute with 4 mL NSS = 1 mg/mL	1 mg	<b>1 mL<sup>2</sup></b> <b>(diluted)</b>	*Diazepam IV <b>slow</b> (10 mg/2 mL) Dilute with 8 mL NSS = 1 mg/mL	2 mg	<b>2 mL<sup>2</sup></b> <b>(diluted)</b>
<b>Hypoglycemia</b> (<60 mg/dL)	Dextrose 25% Slow IV Dilute D50 1:1 with NSS	10.5 g	<b>42 mL</b> <b>(D25)</b>	*Glucagon IM (1 mg/mL)	1 mg	<b>1 mL</b> <b>IM</b>
<b>Pain Control</b>	*Fentanyl IV (100 mcg/2 mL) Dilute with 8 mL NSS = 10 mcg/mL	20 mcg	<b>2 mL<sup>2</sup></b> <b>(diluted)</b>	*Morphine IV/IM/IO (10 mg/mL) Dilute with 9 mL NSS = 1 mg/1 mL	1 mg	<b>1 mL<sup>2</sup></b> <b>(diluted)</b>
	*Fentanyl IN (100 mcg/2 mL)	40 mcg	<b>0.8 mL IN<sup>3</sup></b>			
<b>Narcotic OD</b>	Naloxone IV/IM (2 mg/2 mL)	2 mg	<b>2 mL</b>	*Naloxone IN (2 mg/2 mL)	2 mg	<b>2 mL<sup>3</sup></b>
<b>Fluid Bolus</b>	Normal Saline <b>400 mL IV/IO</b> – May repeat x1 PRN ( <b>400 mL x1</b> )					

\*Per local MCA protocol    <sup>1</sup>Must confirm medication concentration is as specified    <sup>2</sup>Volume after dilution with Normal Saline  
<sup>3</sup>Divide dose equally between both nostrils    <sup>4</sup>For anaphylaxis only    <sup>5</sup>For severe symptoms only



# 24-28 kg (53-62 lbs) / 7-9 Years (Orange) CARDIAC RESUSCITATION



<u>Resuscitation Medication</u> <sup>1</sup>		<u>Dose</u>	<u>Volume</u>
Epinephrine 1:10,000 (1mg/10mL prefill) q 3-5 min for arrest/brady <sup>4</sup>		.3 mg	<b>3 mL</b>
Amiodarone (150mg/3mL) for shock resistant V-Fib		125 mg	<b>2.5 mL</b>
*Lidocaine (100mg/5mL) for wide-complex tachycardia		30 mg	<b>1.5 mL</b>
Atropine (1 mg/10mL) for bradycardia unresponsive to Epi <sup>4</sup>		0.5 mg	<b>5 mL</b>
*Adenosine <sup>3</sup> (6mg/2mL) – 1 <sup>st</sup> Dose (10 mL NSS flush) for SVT		3 mg	<b>1 mL</b>
*Adenosine <sup>3</sup> (6mg/2mL) – 2 <sup>nd</sup> Dose (10 mL NSS flush) for SVT		6 mg	<b>2 mL</b>
<u>Electrical Therapy</u>		<u>Initial</u> <sup>2</sup>	<u>Repeat</u> <sup>2</sup>
Defibrillation (Prefer ped pads/Adult pads anterior/posterior)		<b>50 J</b>	<b>100 J</b>
*Synchronized Cardioversion <sup>3</sup> for unstable tachycardias		<b>25 J</b>	<b>50 J</b>
<u>Equipment</u>	OPA: <b>80mm</b> NPA: <b>26F</b> BVM: <b>Child</b> Laryngoscope: <b>2-3 (curved/straight)</b> ET Tube: <b>5.5 (cuffed)</b> ET Depth: <b>18 cm</b> <u>No ETI unless unable to ventilate</u>		
<u>Fluid Bolus</u>	Normal Saline <b>500 mL IV/IO</b> – May repeat x1 PRN ( <b>500 mL x1</b> )		

**\*CONTACT MEDICAL CONTROL** <sup>1</sup>Must confirm medication concentration is as specified  
<sup>2</sup>May adjust to closest available energy setting <sup>3</sup>SVT usually has HR >220  
<sup>4</sup>CPR if HR <60 after O<sub>2</sub>



# 24-28 kg (53-62 lbs) / 7-9 Years (Orange) CONDITIONS / MEDICATIONS



**Assessment**      **Normal Vitals:** HR: 70-110, RR: 18-22, SBP: 80-110

<u>Condition</u>	<u>Medication</u> <sup>1</sup>	<u>Dose</u>	<u>Volume</u>	<u>Medication</u> <sup>1</sup>	<u>Dose</u>	<u>Volume</u>
<b>Bronchospasm Anaphylaxis</b>	Albuterol Neb (2.5 mg/3 mL) +/- *Ipratropium Bromide (0.5 mg/2.5 mL) if wheezing	2.5 mg +/- 0.5 mg	<b>3 mL</b> +/- <b>2.5 mL*</b>	Epinephrine 1:1000 IM (1 mg/1 mL) <u>or</u> 1 EpiPen Jr IM	0.15 mg	<b>0.15 mL</b> <b>IM<sup>5</sup></b>
	Diphenhydramine IM/IV/IO (50 mg/mL) Dilute with 4 mL NSS = 10 mg/mL <sup>4</sup>	35 mg	<b>3.5 mL<sup>2</sup></b> <b>(diluted)</b>	Solumedrol IV/IO (125 mg/2 mL) Do not dilute	50 mg	<b>0.8 mL</b>
<b>Seizure</b>	Midazolam IM (5 mg/1 mL) <b>Give 1<sup>st</sup> if no IV</b>	2.5 mg	<b>0.5 mL</b> <b>IM</b>	*Diazepam PR (10 mg/2 mL)	10 mg	<b>2 mL</b> <b>PR</b>
	*Midazolam IV <b>slow</b> (5 mg/1 mL) Dilute with 4 mL NSS = 1 mg/mL	1.4 mg	<b>1.4 mL<sup>2</sup></b> <b>(diluted)</b>	*Diazepam IV <b>slow</b> (10 mg/2 mL) Dilute with 8 mL NSS = 1 mg/mL	2.5 mg	<b>2.5 mL<sup>2</sup></b> <b>(diluted)</b>
<b>Hypoglycemia</b> (<60 mg/dL)	Dextrose 50% Slow IV	12.5 g	<b>25 mL</b> <b>(D50)</b>	*Glucagon IM (1 mg/mL)	1 mg	<b>1 mL</b> <b>IM</b>
<b>Pain Control</b>	*Fentanyl IV (100 mcg/2 mL) Dilute with 8 mL NSS = 10 mcg/mL	25 mcg	<b>2.5 mL<sup>2</sup></b> <b>(diluted)</b>	*Morphine IV/IM/IO (10 mg/mL) Dilute with 9 mL NSS = 1 mg/1 mL	1.5 mg	<b>1.5 mL<sup>2</sup></b> <b>(diluted)</b>
	*Fentanyl IN (100 mcg/2 mL)	50 mcg	<b>1 mL IN<sup>3</sup></b>			
<b>Narcotic OD</b>	Naloxone IV/IM (2 mg/2 mL)	2 mg	<b>2 mL</b>	*Naloxone IN (2 mg/2 mL)	2 mg	<b>2 mL</b>
<b>Fluid Bolus</b>	Normal Saline <b>500 mL IV/IO</b> – May repeat x1 PRN ( <b>500 mL x1</b> )					

**\*Per local MCA protocol    <sup>1</sup>Must confirm medication concentration is as specified    <sup>2</sup>Volume after dilution with Normal Saline  
<sup>3</sup>Divide dose equally between both nostrils    <sup>4</sup>For anaphylaxis only    <sup>5</sup>For severe symptoms only**



# 30-36 kg (66-79 lbs) / 10-12 Years (Green) CARDIAC RESUSCITATION



<u>Resuscitation Medication</u> <sup>1</sup>	<u>Dose</u>	<u>Volume</u>
Epinephrine 1:10,000 (1mg/10mL prefill) q 3-5 min for arrest/brady <sup>4</sup>	0.3 mg	<b>3 mL</b>
Amiodarone (150mg/3mL) for shock resistant V-Fib	150 mg	<b>3 mL</b>
*Lidocaine (100mg/5mL) for wide-complex tachycardia	30 mg	<b>1.5 mL</b>
Atropine (1 mg/10mL) for bradycardia unresponsive to Epi <sup>4</sup>	0.5 mg	<b>5 mL</b>
*Adenosine <sup>3</sup> (6mg/2mL) – 1 <sup>st</sup> Dose (10 mL NSS flush) for SVT	3 mg	<b>1 mL</b>
*Adenosine <sup>3</sup> (6mg/2mL) – 2 <sup>nd</sup> Dose (10 mL NSS flush) for SVT	6 mg	<b>2 mL</b>
<u>Electrical Therapy</u>	<u>Initial</u> <sup>2</sup>	<u>Repeat</u> <sup>2</sup>
Defibrillation (Prefer ped pads/Adult pads anterior/posterior)	<b>65 J</b>	<b>130 J</b>
*Synchronized Cardioversion <sup>3</sup> for unstable tachycardias	<b>30 J</b>	<b>60 J</b>

<u>Equipment</u>	OPA: <b>80mm</b> NPA: <b>30F</b> BVM: <b>Adult</b> Laryngoscope: <b>2-3 (curved/straight)</b> ET Tube: <b>6.0</b> (cuffed) ET Depth: <b>19.5 cm</b> <u>No ETI unless unable to ventilate</u>
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<u>Fluid Bolus</u>	Normal Saline <b>700 mL IV/IO</b> – May repeat x1 PRN ( <b>700 mL x1</b> )
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**\*CONTACT MEDICAL CONTROL** <sup>1</sup>Must confirm medication concentration is as specified  
<sup>2</sup>May adjust to closest available energy setting <sup>3</sup>SVT usually has HR >220  
<sup>4</sup>CPR if HR < 60 after O<sub>2</sub>



# 30-36 kg (66-79 lbs) / 10-12 Years (Green) CONDITIONS / MEDICATIONS



**Assessment**      **Normal Vitals:** HR: 70-110, RR: 16-20, SBP: 90-120

<u>Condition</u>	<u>Medication</u> <sup>1</sup>	<u>Dose</u>	<u>Volume</u>	<u>Medication</u> <sup>1</sup>	<u>Dose</u>	<u>Volume</u>
<b>Bronchospasm Anaphylaxis</b>	Albuterol Neb (2.5 mg/3 mL) +/- *Ipratropium Bromide (0.5 mg/2.5 mL) if wheezing	2.5 mg +/- 0.5 mg	<b>3 mL</b> +/- <b>2.5 mL*</b>	Epinephrine 1:1000 IM (1 mg/1 mL) <u>or</u> 1 EpiPen (adult) IM	0.3 mg	<b>0.3 mL</b> <b>IM<sup>5</sup></b>
	Diphenhydramine IM/IV/IO (50 mg/mL) Dilute with 4 mL NSS = 10 mg/mL <sup>4</sup>	40 mg	<b>4 mL<sup>2</sup></b> <b>(diluted)</b>	Solumedrol IV/IO (125 mg/2 mL) Do not dilute	62.5 mg	<b>1 mL</b>
<b>Seizure</b>	Midazolam IM (5 mg/1 mL) <b>Give 1<sup>st</sup> if no IV</b>	3 mg	<b>0.6 mL</b> <b>IM</b>	*Diazepam PR (10 mg/2 mL)	10 mg	<b>2 mL</b> <b>PR</b>
	*Midazolam IV <b>slow</b> (5 mg/1 mL) Dilute with 4 mL NSS = 1 mg/mL	2 mg	<b>2 mL<sup>2</sup></b> <b>(diluted)</b>	*Diazepam IV <b>slow</b> (10 mg/2 mL) Dilute with 8 mL NSS = 1 mg/mL	3.3 mg	<b>3.3 mL<sup>2</sup></b> <b>(diluted)</b>
<b>Hypoglycemia</b> (<60 mg/dL)	Dextrose 50% Slow IV	15 g	<b>30 mL</b> <b>(D50)</b>	*Glucagon IM (1 mg/mL)	1 mg	<b>1 mL</b> <b>IM</b>
<b>Pain Control</b>	*Fentanyl IV (100 mcg/2 mL) Dilute with 8 mL NSS = 10 mcg/mL	30 mcg	<b>3 mL<sup>2</sup></b> <b>(diluted)</b>	*Morphine IV/IM/IO (10 mg/mL) Dilute with 9 mL NSS = 1 mg/1 mL	2 mg	<b>2 mL<sup>2</sup></b> <b>(diluted)</b>
	*Fentanyl IN (100 mcg/2 mL)	60 mcg	<b>1.2 mL</b> <b>IN<sup>3</sup></b>	*Morphine IM (10 mg/mL)	2 mg	<b>0.2 mL</b>
<b>Narcotic OD</b>	Naloxone IV/IM (2 mg/2 mL)	2 mg	<b>2 mL</b>	*Naloxone IN (2 mg/2 mL)	2 mg	<b>2 mL<sup>3</sup></b>
<b>Fluid Bolus</b>	Normal Saline <b>700 mL IV/IO</b> – May repeat x1 PRN ( <b>700 mL x1</b> )					

<sup>1</sup>Must confirm medication concentration is as specified    <sup>2</sup>Volume after dilution with Normal Saline

<sup>3</sup>Divide dose equally between both nostrils    <sup>4</sup>For anaphylaxis only    <sup>5</sup>For severe symptoms only



Adult / >14 Years (Black)



# CARDIAC RESUSCITATION

<u>Resuscitation Medication</u> <sup>1</sup>	<u>Dose</u>	<u>Volume</u>
Epinephrine 1:10,000 (1mg/10mL prefill) IV/IO q 3-5 min for arrest	1 mg	10 mL
*Vasopressin (20 units/mL) IV/IO may give in place of 2 <sup>nd</sup> Epi dose	40 units	2 mL
Amiodarone (150mg/3mL) IV/IO for shock resistant V-Fib	300 mg	6 mL
*Lidocaine (100mg/5mL) IV for stable wide-complex tachycardia	100 mg	5 mL
*Amiodarone <sup>2</sup> (150 mg/3mL) IV for stable wide complex tachy	150 mg	100 mL <sup>2</sup>
Atropine (1 mg/10mL) IV/IO for bradycardia, q 3-5 min to 3 mg max	0.5 mg	5 mL
Adenosine (6mg/2mL) IV – 1 <sup>st</sup> Dose <sup>4</sup> (10 mL NSS flush) for SVT	6 mg	2 mL <sup>4</sup>
<u>Electrical Therapy</u>	<u>Initial</u> <sup>3</sup>	<u>Repeat</u> <sup>3</sup>
V-Fib or Pulseless V-Tach: Defibrillation	120-200 J	≥120-200 J
Unstable, reg wide tachy: Synchronized Cardioversion	100 J	200 J
Unstable, irregular tachy: Synchronized Cardioversion	120-200 J	≥120-200 J
<b><u>Fluid Bolus</u></b>	Normal Saline 1000 mL, repeat PRN	

\*Per local MCA protocol <sup>1</sup>Must confirm med concentration is as specified <sup>2</sup>Add to 100 mL NSS, run over 10 minutes <sup>3</sup>Based on biphasic, use manufacture’s recommended energy <sup>4</sup>Double for 2<sup>nd</sup> dose



# ADULT / >14 Years (Black) CONDITIONS / MEDICATIONS



**Assessment**      **Normal Vitals:** HR: 60-100, RR: 12-20, SBP: 100-140,

<u>Condition</u>	<u>Medication</u> <sup>1</sup>	<u>Dose</u>	<u>Volume</u>	<u>Medication</u> <sup>1</sup>	<u>Dose</u>	<u>Volume</u>
<b>Respiratory Distress with Wheezing or Anaphylaxis</b>	Albuterol Neb (2.5 mg/3 mL) +/- *Ipratropium Bromide (0.5 mg/2.5 mL) if wheezing	2.5 mg +/- 0.5 mg	<b>3 mL +/- 2.5 mL*</b>	Epinephrine 1:1000 IM (1 mg/1 mL) <u>or</u> 1 EpiPen (adult) IM	0.3 mg	<b>0.3 mL IM<sup>5</sup></b>
	Diphenhydramine <sup>4</sup> IM/IV/IO (50 mg/mL)	50 mg	<b>1 mL<sup>4</sup></b>	Solumedrol IV/IO (125 mg/2 mL)	125 mg	<b>2 mL</b>
<b>Seizure</b>	Midazolam IM (5 mg/1 mL) <b>Give 1<sup>st</sup> if no IV</b>	10 mg	<b>2 mL IM</b>	*Diazepam PR (10 mg/2 mL)	10 mg	<b>2 mL PR</b>
	*Midazolam IV <b>slow</b> (5 mg/1 mL) Dilute with 4 mL NSS = 1 mg/mL	5 mg	<b>5 mL<sup>2</sup> (diluted)</b>	*Diazepam IV <b>slow</b> until seizure stops (10 mg/2 mL)	10 mg	<b>2 mL</b>
<b>Hypoglycemia</b>	Dextrose 50% Slow IV	25G	<b>50 mL (D50)</b>	Glucagon IM (1 mg/mL)	1 mg	<b>1 mL IM</b>
<b>Pain Control</b>	*Fentanyl IV/IO/IM (100 mcg/2 mL). Dilute with 8 mL NSS = 10 mcg/mL	100 mcg	<b>10 mL<sup>2</sup> (diluted)</b>	*Morphine IV/IO (10 mg/mL) Dilute with 9 mL NSS = 1 mg/1 mL	2-5 mg	<b>2-5 mL<sup>2</sup> (diluted)</b>
	*Fentanyl IN (100 mcg/2 mL)	200 mcg	<b>2+2 mL IN</b>	*Morphine IM (10 mg/mL)	2-5 mg	<b>0.2-0.5 mL IM</b>
<b>Narcotic OD</b>	Naloxone IV/IM (2 mg/2 mL)	2 mg	<b>2 mL</b>	*Naloxone IN (2 mg/2 mL)	2 mg	<b>2 mL</b>
<b>Fluid Bolus</b>	Normal Saline <b>1000 mL IV/IO</b> – May repeat PRN ( <b>1000 mL x1</b> )					

**\*Per local MCA protocol    <sup>1</sup>Must confirm medication concentration is as specified    <sup>2</sup>Volume after dilution with Normal Saline  
<sup>4</sup>For anaphylaxis only    <sup>5</sup>For severe symptoms only**





