



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



- MI-MEDIC is provided by the Michigan Department of Community Health (MDCH), Division of Crime Victims, EMS, and Trauma Systems, EMS for Children Program.
- This project was supported with funding from the U. S. Department of Health and Human Services (HHS) Health Resources and Services Administration (HRSA), EMS For Children State Partnership Program and MDCH Office of Public Health Preparedness. Its contents are solely the responsibility of the authors and do not necessarily represent the official views of HRSA.
- 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> )		
<b>*CONTACT MEDICAL CONTROL</b> <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>			



# 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 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> )		
<b>*CONTACT MEDICAL CONTROL</b> <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>			



# 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 (cuffed)</b> ET Depth: <b>11 cm</b> <i>No ETI unless unable to ventilate</i>		
<u>Fluid Bolus</u>	Normal Saline <b>170 mL IV/IO</b> – May repeat x1 PRN ( <b>170 mL x1</b> )		
<p><b>*CONTACT MEDICAL CONTROL</b> <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 &gt;220  <sup>4</sup>Dilute 2 ml of Adenosine with 4 mL NSS to produce 1 mg/mL <sup>5</sup>CPR if HR&lt;60 after O<sub>2</sub></p>			



# 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.

<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	17.5 mg	<b>0.7 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)	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>
<b>Hypoglycemia</b> (<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>
<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	0.4 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>			
<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>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> )		
* <b>CONTACT MEDICAL CONTROL</b> <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<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 +/- 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 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> (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> (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 IM</b>	*Diazepam PR (10 mg/2 mL)	5 mg	<b>1 mL 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> (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> (diluted)</b>
<b>Hypoglycemia</b> (<60 mg/dL)	Dextrose 25% Slow IV Dilute D50 1:1 with NSS	5.25 g	<b>21 mL (D25)</b>	*Glucagon IM (1 mg/mL)	0.5 mg	<b>0.5 mL 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> (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> (diluted)</b>
	*Fentanyl IN (100 mcg/2 mL)	20 mcg	<b>0.2 mL 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



**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	<b>1.5 mL</b>
Amiodarone (150mg/3mL) for shock resistant V-Fib		75 mg	<b>1.5 mL</b>
*Lidocaine (100mg/5mL) for wide-complex tachycardia		14 mg	<b>0.7 mL</b>
Atropine (1 mg/10mL) for bradycardia unresponsive to Epi <sup>5</sup>		0.25 mg	<b>2.5 mL</b>
*Adenosine <sup>3</sup> (6mg/2mL) 1 <sup>st</sup> Dose ( <b>Diluted</b> ) <sup>4</sup> for SVT <sup>3</sup>		1.5 mg	<b>1.5 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>		3 mg	<b>3 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>25 J</b>	<b>50 J</b>
*Synchronized Cardioversion <sup>3</sup> for unstable tachycardias		<b>15 J</b>	<b>30 J</b>
<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> <i>No ETI unless unable to ventilate</i>		
<u>Fluid Bolus</u>	Normal Saline <b>250 mL IV/IO</b> – May repeat x1 PRN ( <b>250 mL x1</b> )		
<p><b>*CONTACT MEDICAL CONTROL</b> <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 &gt;220  <sup>4</sup>Dilute 2 ml of Adenosine with 4 mL NSS to produce 1 mg/mL <sup>5</sup>CPR if HR&lt;60 after O<sub>2</sub></p>			



# 12-14 kg (26-31 lbs) / 15-35 months (tellow) 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> )		
* <b>CONTACT MEDICAL CONTROL</b> <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> )		
<p><b>*CONTACT MEDICAL CONTROL</b> <sup>1</sup>Must confirm medication concentration is as specified</p> <p><sup>2</sup>May adjust to closest available energy setting <sup>3</sup>SVT usually has HR &gt;220</p> <p><sup>4</sup>CPR if HR&lt;60 after O<sub>2</sub></p>			



# 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 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> )		
<p><b>*CONTACT MEDICAL CONTROL</b> <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 &gt;220  <sup>4</sup>CPR if HR &lt;60 after O<sub>2</sub></p>			



# 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> <i>No ETI unless unable to ventilate</i>		
<u>Fluid Bolus</u>	Normal Saline <b>700 mL IV/IO</b> – May repeat x1 PRN ( <b>700 mL x1</b> )		
* <b>CONTACT MEDICAL CONTROL</b> <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<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 (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
<u>Fluid Bolus</u>	Normal Saline 1000 mL, repeat PRN	
<p>*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</p>		





# 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





