### TAB 5 GUIDELINE 1

**PEdiatric TABLEs**

<table>
<thead>
<tr>
<th>Age</th>
<th>Pulse (beats/min)</th>
<th>Respirations</th>
<th>Blood Pressure (SBP / DBP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Newborn</td>
<td>120 – 160</td>
<td>30 – 60</td>
<td>74 – 100 / 50 – 68</td>
</tr>
<tr>
<td>Infant</td>
<td>100 – 140</td>
<td>30 – 60</td>
<td>84 – 106 / 56 – 70</td>
</tr>
<tr>
<td>Toddler</td>
<td>80 – 130</td>
<td>24 – 40</td>
<td>98 – 106 / 50 – 70</td>
</tr>
<tr>
<td>Preschool</td>
<td>80 – 120</td>
<td>22 – 34</td>
<td>98 – 112 / 64 – 70</td>
</tr>
<tr>
<td>School age</td>
<td>60 – 100</td>
<td>18 – 30</td>
<td>104 – 124 / 64 – 80</td>
</tr>
<tr>
<td>Adolescent</td>
<td>50 – 90</td>
<td>12 – 18</td>
<td>118 – 132 / 70 – 82</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age</th>
<th>Estimated Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>10 kg</td>
</tr>
<tr>
<td>3</td>
<td>15 kg</td>
</tr>
<tr>
<td>5</td>
<td>20 kg</td>
</tr>
<tr>
<td>7</td>
<td>25 kg</td>
</tr>
<tr>
<td>9</td>
<td>30 kg</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AGE</th>
<th>ORAL AIRWAY</th>
<th>ENDOTRACHEAL TUBE (uncuffed)</th>
<th>SUCTION CATHETER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preemie</td>
<td>00</td>
<td>2.5 - 3.0</td>
<td>5 French</td>
</tr>
<tr>
<td>Newborn</td>
<td>0</td>
<td>3.0 - 3.5</td>
<td>6 French</td>
</tr>
<tr>
<td>6 Months</td>
<td>0-1</td>
<td>3.5</td>
<td>8 French</td>
</tr>
<tr>
<td>18 Months</td>
<td>1</td>
<td>4.0</td>
<td>8 French</td>
</tr>
<tr>
<td>3 Years</td>
<td>2</td>
<td>4.5</td>
<td>8 French</td>
</tr>
<tr>
<td>5 Years</td>
<td>2-3</td>
<td>5.0</td>
<td>10 French</td>
</tr>
<tr>
<td>8 Years</td>
<td>3</td>
<td>6.0 cuffed</td>
<td>10 French</td>
</tr>
<tr>
<td>Older</td>
<td>4</td>
<td>6.5 -7.0 cuffed</td>
<td>12 French</td>
</tr>
</tbody>
</table>
### Weight 3 – 5 kg (Ave 4.0 kg)

<table>
<thead>
<tr>
<th>Vital Signs</th>
<th>IV Catheter (ga)</th>
<th>IO (ga)</th>
<th>Normal Saline Bolus</th>
<th>Defibrillation</th>
<th>Cardiovversion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heart Rate</td>
<td>120-150</td>
<td>18 / 15</td>
<td>60 – 100 ml</td>
<td>8 joules</td>
<td>4 joules</td>
</tr>
<tr>
<td>Respiration</td>
<td>24-48</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BP Systolic</td>
<td>70 (+/-25)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Equipment</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Resuscitation Bag</td>
<td>Infant / Child</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oxygen Mask (NRB)</td>
<td>Pediatric</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oral Airway</td>
<td>50 mm</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Laryngoscope Blade Size</td>
<td>0 – 1 straight</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ET Tube Size</td>
<td>3.5 uncuffed</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ET Tube Insertion Depth</td>
<td>3 Kg</td>
<td>9 – 9.5 cm</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NG Tube</td>
<td>5 – 8 Fr</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suction Catheter</td>
<td>8 Fr</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Defibrillation
- Acetaminophen: 1.8 mL
- Adenosine: 0.3 – 0.5 mg
- Albuterol: 2.5 mg
- Amiodarone: HOLD
- Atropine: 0.10 mg
- Calcium Chloride: 60 – 100 mg
- Diazepam IV: 1.5 – 2.5 gram
- Diazepam Rectal: 1.5 – 2.5 mg

### Weight 6 – 7 kg (Ave 6.5 kg)

<table>
<thead>
<tr>
<th>Vital Signs</th>
<th>IV Catheter (ga)</th>
<th>IO (ga)</th>
<th>Normal Saline Bolus</th>
<th>Defibrillation</th>
<th>Cardiovversion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heart Rate</td>
<td>120 – 125</td>
<td>18 / 15</td>
<td>120 – 140 ml</td>
<td>13 joules</td>
<td>6 joules</td>
</tr>
<tr>
<td>Respiration</td>
<td>24 – 48</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BP Systolic</td>
<td>85 (+/-25)</td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Equipment</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Resuscitation Bag</td>
<td>Infant / Child</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oxygen Mask (NRB)</td>
<td>Pediatric</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oral Airway</td>
<td>50 mm</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Laryngoscope Blade Size</td>
<td>1 straight</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ET Tube Size</td>
<td>3.5 uncuffed</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ET Tube Insertion Depth</td>
<td>10.5 – 11 cm</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NG Tube</td>
<td>5 – 8 Fr</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suction Catheter</td>
<td>8 Fr</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Defibrillation       |                   |         |                     |                |                |
- Acetaminophen: 3 mL
- Adenosine: 0.65 mg
- Albuterol: 1.3 mg
- Amiodarone: HOLD
- Atropine: 0.13 mg
- Calcium Chloride: 130 mg
- Dextrose 25%: 3.25 g
- Diazepam IV / Rectal: 1.3 mg / 3.3 mg

### Weight 8 – 9 kg (Ave 8.5 kg)

<table>
<thead>
<tr>
<th>Vital Signs</th>
<th>IV Catheter (ga)</th>
<th>IO (ga)</th>
<th>Normal Saline Bolus</th>
<th>Defibrillation</th>
<th>Cardioversion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heart Rate</td>
<td>120 – 150</td>
<td>18 / 15</td>
<td>160 – 180 mL</td>
<td>17 joules</td>
<td>8 joules</td>
</tr>
<tr>
<td>Respiration</td>
<td>24 – 32</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BP Systolic</td>
<td>92 (+/-30)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Equipment</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Resuscitation Bag</td>
<td>Infant / Child</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oxygen Mask (NRB)</td>
<td>Pediatric</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oral Airway</td>
<td>50 mm</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Laryngoscope Blade Size</td>
<td>1 straight</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ET Tube Size</td>
<td>3.5 uncuffed</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ET Tube Insertion Depth</td>
<td>10.5 – 11 cm</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NG Tube</td>
<td>5 – 8 Fr</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suction Catheter</td>
<td>8 Fr</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Defibrillation       |                   |         |                     |                |                |
- Acetaminophen: 4 mL
- Adenosine: 0.85 mg
- Albuterol: 1.7 mg
- Amiodarone: 42 mg
- Atropine: 0.17 mg
- Calcium Chloride: 170 mg
- Dextrose 25%: 4.25 g
- Diazepam IV / Rectal: 1.7 mg / 4.2 mg

### Equipment

**Length < 50.5 cm**
- **Length < 50.5 – 66.5 cm**
- **Length ≥ 66.5 cm**

**Vital Signs**
- Heart Rate: 120-150
- Respiration: 24-48
- BP Systolic: 70 (+/-25)

**Defibrillation**
- Acetaminophen: 1.8 mL
- Adenosine: 0.3 – 0.5 mg
- Albuterol: 2.5 mg
- Amiodarone: HOLD
- Atropine: 0.10 mg
- Calcium Chloride: 60 – 100 mg
- Diazepam IV: 1.5 – 2.5 gram
- Diazepam Rectal: 1.5 – 2.5 mg

**Drug Administration**
- Epinephrine: 0.03 – 0.05 mg
- Epinephrine: 0.3 – 0.5 mg
- Epinephrine: 0.06 mg
- Etorphidate: 0.9 – 1.5 mg
- Fentanyl (Sedation): 9 – 15 mcg
- Glucagon: 0.5 mg
- Ipratropium: 500 mcg
- Levobuterol: 0.31 mg
- Lidocaine: 3 – 5 mg
- Magnesium Sulfate: 150 – 250 mg
- Midazolam (Induction): 0.9 – 1.5 mg
- Morphine Sulfate: 0.6 mg
- Naloxone: 0.3 – 0.5 mg
- Sodium Bicarbonate: 3 – 5 mEq
- Succinylcholine: 6 – 10 mg
### Weight 10 – 11 kg (Ave 10.5 kg)

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Vital Signs</th>
<th>Defibrillation</th>
<th>Normal Saline Bolus</th>
<th>IO (ga)</th>
<th>IV Catheter (ga)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length: 14 – 15 cm</td>
<td>Heart Rate: 115 – 120</td>
<td>20 – 24</td>
<td>200 – 220 mL</td>
<td>15</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Respiration: 22 – 30</td>
<td>1st dose: 1 mL</td>
<td>170 mL</td>
<td>300 mg</td>
<td>18 – 24</td>
</tr>
<tr>
<td></td>
<td>BP Systolic: 96 (+/-30)</td>
<td>2nd dose: 2 mL</td>
<td></td>
<td></td>
<td>Heart Rate: 115 – 120</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Acetaminophen: 5 mL</td>
<td></td>
<td></td>
<td>Albuterol: 2.5 mg</td>
</tr>
<tr>
<td></td>
<td>Resuscitation Bag: Child</td>
<td>Adenosine: 1 mg</td>
<td></td>
<td></td>
<td>Amiodarone: 50 mg</td>
</tr>
<tr>
<td></td>
<td>Oxygen Mask (NRB): Pediatric</td>
<td></td>
<td></td>
<td></td>
<td>Atropine: 0.21 mg</td>
</tr>
<tr>
<td></td>
<td>Oral Airway: 60 mm</td>
<td></td>
<td></td>
<td></td>
<td>Calcium Chloride: 210 mg</td>
</tr>
<tr>
<td></td>
<td>Laryngoscope Blade Size: 1 straight</td>
<td></td>
<td></td>
<td></td>
<td>Dextrose 25%: 5.25 grams</td>
</tr>
<tr>
<td></td>
<td>ET Tube Size: 4 uncuffed</td>
<td></td>
<td></td>
<td></td>
<td>Diazepam IV / Rectal: 2 mg / 5 mg</td>
</tr>
<tr>
<td></td>
<td>ET Tube Insertion Depth: 11 – 12 cm</td>
<td></td>
<td></td>
<td></td>
<td>Succinylcholine: 20 mg</td>
</tr>
<tr>
<td></td>
<td>NG Tube: 8 – 10 Fr</td>
<td></td>
<td></td>
<td>Naloxone: 1.5 mg</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Suction Catheter: 10 Fr</td>
<td></td>
<td></td>
<td>Ondansetron: 1 mg</td>
<td></td>
</tr>
</tbody>
</table>

| Dipsopressin 0.5 mg | 0.1 mg |
| Glucagon 0.3 – 1 mg | |
| Epinephrine 1:000 IM 0.1 mg | |
| Etomidate 3.2 mg | |
| Midazolam 5 mg | |
| Magnesium Sulfate 525 mg | |
| Morphine Sulfate 1 mg | |
| Naloxone 1 mg | |
| Ondansetron 1 mg | |
| Sodium Bicarbonate 10 mL | |
| Succinylcholine 20 mg | |

### Weight 12 – 14 Kg (Ave 13 Kg)

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Vital Signs</th>
<th>Defibrillation</th>
<th>Normal Saline Bolus</th>
<th>IO (ga)</th>
<th>IV Catheter (ga)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length: 15 – 17 cm</td>
<td>Heart Rate: 110 – 115</td>
<td>26 joules</td>
<td>240 – 280 mL</td>
<td>15</td>
<td>18 – 24</td>
</tr>
<tr>
<td></td>
<td>Respiration: 20 – 28</td>
<td>Cardioversion: 13 joules</td>
<td></td>
<td></td>
<td>Heart Rate: 110 – 115</td>
</tr>
<tr>
<td></td>
<td>BP Systolic: 100 (+/-30)</td>
<td>1st dose: 1.3 mg</td>
<td></td>
<td></td>
<td>Albuterol: 2.5 mg</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2nd dose: 2.6 mg</td>
<td></td>
<td></td>
<td>Amiodarone: 65 mg</td>
</tr>
<tr>
<td></td>
<td>Resuscitation Bag: Child</td>
<td>Acetaminophen: 6 mL</td>
<td></td>
<td></td>
<td>Atropine: 0.26 mg</td>
</tr>
<tr>
<td></td>
<td>Oxygen Mask (NRB): Pediatric</td>
<td>Adenosine: 1 mg</td>
<td></td>
<td></td>
<td>Calcium Chloride: 260 mg</td>
</tr>
<tr>
<td></td>
<td>Oral Airway: 60 mm</td>
<td>1st dose: 1.3 mg</td>
<td></td>
<td></td>
<td>Dextrose 25%: 6.5 grams</td>
</tr>
<tr>
<td></td>
<td>Laryngoscope Blade Size: 2 straight</td>
<td>2nd dose: 2.6 mg</td>
<td></td>
<td></td>
<td>Diazepam IV / Rectal: 2.6 mg / 6.5 mg</td>
</tr>
<tr>
<td></td>
<td>ET Tube Size: 4.5 uncuffed</td>
<td></td>
<td></td>
<td></td>
<td>Succinylcholine: 26 mg</td>
</tr>
<tr>
<td></td>
<td>ET Tube Insertion Depth: 13.5 cm</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>King LT Airway: Size 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>NG Tube: 10 Fr</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Suction Catheter: 10 Fr</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Dipsopressin 0.5 mg | 0.1 mg |
| Glucagon 0.5 mg | |
| Epinephrine 1:000 IM 0.1 mg | |
| Etomidate 4 mg | |
| Fentanyl (Sedation) 40 mcg | |
| Glucagon 0.5 mg | |
| Ibuprofen 6.5 mL | |
| Ipratropium 500 mcg | |
| Lidoamine 13 mg | |
| Magnesium Sulfate 600 mg | |
| Midazolam 4 mg | |
| Morphine Sulfate 1 mg | |
| Naloxone 1 mg | |
| Ondansetron 1 mg | |
| Sodium Bicarbonate 13 mL | |
| Succinylcholine 26 mg | |

### Weight 15 – 18 kg (Ave 16.5 kg)

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Vital Signs</th>
<th>Defibrillation</th>
<th>Normal Saline Bolus</th>
<th>IO (ga)</th>
<th>IV Catheter (ga)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length: 17 – 19 cm</td>
<td>Heart Rate: 100-115</td>
<td>35 joules</td>
<td>300 – 360 mL</td>
<td>18 / 15</td>
<td>22 – 24</td>
</tr>
<tr>
<td></td>
<td>Respiration: 22-26</td>
<td>Cardioversion: 16 joules</td>
<td></td>
<td></td>
<td>Heart Rate: 100-115</td>
</tr>
<tr>
<td></td>
<td>BP Systolic: 100 (+/-20)</td>
<td>1st dose: 1.7 mg</td>
<td></td>
<td></td>
<td>Albuterol: 3.3 mg</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2nd dose: 3.3 mg</td>
<td></td>
<td></td>
<td>Amiodarone: 80 mg</td>
</tr>
<tr>
<td></td>
<td>Resuscitation Bag: Child</td>
<td></td>
<td></td>
<td></td>
<td>Atropine: 0.33 mg</td>
</tr>
<tr>
<td></td>
<td>Oxygen Mask (NRB): Pediatric</td>
<td></td>
<td></td>
<td></td>
<td>Calcium Chloride: 330 mg</td>
</tr>
<tr>
<td></td>
<td>Oral Airway: 60 mm</td>
<td></td>
<td></td>
<td></td>
<td>Dextrose 25%: 8.25 grams</td>
</tr>
<tr>
<td></td>
<td>Laryngoscope Blade Size: 2 straight</td>
<td></td>
<td></td>
<td></td>
<td>Diazepam IV / Rectal: 3.3 mg / 8 mg</td>
</tr>
<tr>
<td></td>
<td>ET Tube Size: 5.0 uncuffed</td>
<td></td>
<td></td>
<td>Naloxone: 1.5 mg</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ET Tube Insertion Depth: 14 – 15 cm</td>
<td></td>
<td></td>
<td></td>
<td>Ondansetron: 1.5 mg</td>
</tr>
<tr>
<td></td>
<td>King LT Airway: Size 2 – 2.5</td>
<td></td>
<td></td>
<td></td>
<td>Sodium Bicarbonate: 16.5 mL</td>
</tr>
<tr>
<td></td>
<td>NG Tube: 10 Fr</td>
<td></td>
<td></td>
<td></td>
<td>Succinylcholine: 30 mg</td>
</tr>
</tbody>
</table>

| Dipsopressin 0.5 mg | 0.17 mg |
| Glucagon 0.5 mg | |
| Epinephrine 1:10,000 0.17 mg | |
| Etomidate 5 mg | |
| Fentanyl (Sedation) 50 mcg | |
| Epinephrine 1:000 IM 0.17 mg | |
| Ipratropium 500 mcg | |
| Lidoamine 17 mg | |
| Magnesium Sulfate 820 mg | |
| Midazolam (Induction) 5 mg | |
| Morphine Sulfate 1.5 mg | |
| Naloxone 1.5 mg | |
| Ondansetron 1.5 mg | |
| Sodium Bicarbonate 16.5 mL | |
## Weight 19 – 22 kg (Ave 20.75 kg)

### Vital Signs
- Heart Rate: 100
- Respiration: 22-24
- BP Systolic: 100 (+/-15)

### Equipment
- Resuscitation Bag: Child
- Oxygen Mask (NRB): Pediatric
- Oral Airway: 70 mm
- Laryngoscope Blade Size: 2 straight or curved
- ET Tube Size: 5.5 uncuffed
- ET Tube Insertion Depth: 16.5 cm
- King LT Airway: Size 2.5
- NG Tube: 12 – 14 Fr
- Suction Catheter: 10 Fr

### Defibrillation
- Defibrillation: 40 joules
- Cardioversion: 20 joules

### IV Catheter (ga)
- 20 – 24

### IO (ga)
- 15

### Normal Saline Bolus
- 380 – 440 mL

### Drugs
- Acetaminophen: 9.5 mL
- Adenosine: 1st dose 2.1 mg
- 2nd dose 2 mg
- Albuterol: 2.5 mg
- Amiodarone: 105 mg
- Atropine: 0.4 mg
- Calcium Chloride: 420 mg
- Dextrose 25%: 10.5 grams
- Diazepam IV / Rectal: 4.2 mg / 10 mg

### Drugs
- Diphenhydramine: 20 mg
- Epinephrine: 1:10,000
- Epinephrine: 1:000 ETT
- Epinephrine: 1:000 IM
- Etoridate: 3.2 mg
- Fentanyl (Sedation): 63 mcg
- Glucagon: 1 mg
- Ibutprofen: 10 mL
- Ipratropium: 500 mcg
- Lidocaine: 32 mg
- Magnesium Sulfate: 1050 mg
- Midazolam: 6.3 mg
- Morphone Sulfate: 2 mg
- Naloxone: 2 mg
- Ondansetron: 2 mg
- Sodium Bicarbonate: 21 mL
- Succinylcholine: 40 mg

## Weight 24 – 30 Kg (Ave 27 Kg)

### Vital Signs
- Heart Rate: 90
- Respiration: 18-22
- BP Systolic: 10 (+/-15)

### Equipment
- Resuscitation Bag: Child
- Oxygen Mask (NRB): Pediatric
- Oral Airway: 80 mm
- Laryngoscope Blade Size: 2 straight or curved
- ET Tube Size: 6 cuffed
- ET Tube Insertion Depth: 17 – 18 cm
- King LT Airway: Size 3
- NG Tube: 14 – 16 Fr
- Suction Catheter: 10 Fr

### Defibrillation
- Defibrillation: 54 joules
- Cardioversion: 27 joules

### IV Catheter (ga)
- 18 – 20

### IO (ga)
- 15

### Normal Saline Bolus
- 480 – 600 mL

### Drugs
- Acetaminophen: 12.5 mL
- Adenosine: 1st dose 2.7 mg
- 2nd dose 5.4 mg
- Albuterol: 2.5 mg
- Amiodarone: 130 mg
- Atropine: 0.5 mg
- Calcium Chloride: 530 mg
- Dextrose 25%: 13.3 grams
- Diazepam IV / Rectal: 5.3 mg / 8 mg

### Drugs
- Diphenhydramine: 25 mg
- Epinephrine: 1:10,000
- Epinephrine: 1:000 ETT
- Epinephrine: 1:000 IM
- Etoridate: 8 mg
- Fentanyl (Sedation): 80 mcg
- Glucagon: 1 mg
- Ibutprofen: 13.5 mL
- Ipratropium: 500 mcg
- Lidocaine: 40 mg
- Magnesium Sulfate: 1325 mg
- Midazolam: 8 mg
- Morphone Sulfate: 2 mg
- Naloxone: 2.7 mg
- Ondansetron: 2.7 mg
- Sodium Bicarbonate: 27 mL
- Succinylcholine: 53 mg

## Weight 32 – 40 kg (Ave 36 kg)

### Vital Signs
- Heart Rate: 85-90
- Respiration: 16-22
- BP Systolic: 115 (+/-20)

### Equipment
- Resuscitation Bag: Child
- Oxygen Mask (NRB): Pediatric / Adult
- Oral Airway: 80 mm
- Laryngoscope Blade Size: 3 straight or curved
- ET Tube Size: 6.5 cuffed
- ET Tube Insertion Depth: 18.5 – 19.5 cm
- King LT Airway: Size 3
- NG Tube: 16 – 18 Fr
- Suction Catheter: 10 – 12 Fr

### Defibrillation
- Defibrillation: 70 joules
- Cardioversion: 40 joules

### IV Catheter (ga)
- 16 – 20

### IO (ga)
- 15

### Normal Saline Bolus
- 640 – 800 mL

### Drugs
- Acetaminophen: 17 mL
- Adenosine: 1st dose 3.3 mg
- 2nd dose 36.6 mg
- Albuterol: 2.5 mg
- Amiodarone: 165 mg
- Atropine: 0.5 mg
- Calcium Chloride: 660 mg
- Dextrose 25%: 16.5 grams
- Diazepam IV / Rectal: 6.6 mg / 10 mg

### Drugs
- Diphenhydramine: 25 mg
- Epinephrine: 1:10,000
- Epinephrine: 1:000 ETT
- Epinephrine: 1:000 IM
- Etoridate: 10 mg
- Fentanyl (Sedation): 100 mcg
- Glucagon: 1 mg
- Ibutprofen: 18 mL
- Ipratropium: 500 mcg
- Lidocaine: 50 mg
- Magnesium Sulfate: 1650 mg
- Midazolam (Induction): 10 mg
- Morphone Sulfate: 2 mg
- Naloxone: 2 mg
- Ondansetron: 3.5 mg
- Sodium Bicarbonate: 33 mL
- Succinylcholine: 66 mg
### TAB 5 GUIDELINE 2

#### ABDOMINAL PAIN

<table>
<thead>
<tr>
<th>HISTORY</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Age</td>
</tr>
<tr>
<td>• Past medical / surgical history</td>
</tr>
<tr>
<td>• Medications</td>
</tr>
<tr>
<td>• Onset</td>
</tr>
<tr>
<td>• Palliation / Provocation</td>
</tr>
<tr>
<td>• Quality (crampy, constant, sharp, dull, etc)</td>
</tr>
<tr>
<td>• Region / Radiation / Referred</td>
</tr>
<tr>
<td>• Severity (1-10)</td>
</tr>
<tr>
<td>• Time (duration / repetition)</td>
</tr>
<tr>
<td>• Fever</td>
</tr>
<tr>
<td>• Last meal eaten</td>
</tr>
<tr>
<td>• Last bowel movement</td>
</tr>
<tr>
<td>• Menstrual history (pregnancy)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SIGNS / SYMPTOMS</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Pain (location / migration)</td>
</tr>
<tr>
<td>• Tenderness</td>
</tr>
<tr>
<td>• Nausea</td>
</tr>
<tr>
<td>• Vomiting</td>
</tr>
<tr>
<td>• Diarrhea</td>
</tr>
<tr>
<td>• Dysuria</td>
</tr>
<tr>
<td>• Constipation</td>
</tr>
<tr>
<td>• Vaginal bleeding / discharge</td>
</tr>
<tr>
<td>• Pregnancy</td>
</tr>
</tbody>
</table>

**ASSOCIATED SYMPTOMS:**
- Fever, headache, weakness, malaise, myalgias, cough, headache, mental status changes, rash

<table>
<thead>
<tr>
<th>DIFFERENTIAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Pneumonia or Pulmonary embolus</td>
</tr>
<tr>
<td>• Liver (hepatitis, CHF)</td>
</tr>
<tr>
<td>• Peptic ulcer disease / Gastritis</td>
</tr>
<tr>
<td>• Gallbladder / Pancreatitis</td>
</tr>
<tr>
<td>• Kidney stone</td>
</tr>
<tr>
<td>• Appendicitis / Diverticulitis</td>
</tr>
<tr>
<td>• Bladder / Prostate disorder</td>
</tr>
<tr>
<td>• Pelvic (PID, Ectopic pregnancy, Ovarian cyst)</td>
</tr>
<tr>
<td>• Spleen enlargement</td>
</tr>
<tr>
<td>• Bowel obstruction</td>
</tr>
<tr>
<td>• Gastroenteritis (infectious)</td>
</tr>
</tbody>
</table>

**LEGEND**

- EMR
- EMT
- A-EMT
- EMT-P
- MC Order

---

**Universal Patient Care**
- Make NPO

**IV / IO Access**

**Hypotension / Signs of Dehydration**
- NO

**Fluid Bolus**
- 20 mL / Kg NS or LR

**Nausea / Vomiting**
- YES

**SBP < normal for age**
- NO

**Minimum Systolic BP by Age**
- < 1 mo: 60 mmHg
- 1 mo to 10 y: 70 + (2 × age in years)
- ≥ 10 y: 90 mmHg

**YES**

**Zofran 0.1 mg / Kg**
- IV / IO / IN / IM (max 4 mg)

**NO**

**Contact Medical Control**

**Transport to appropriate facility**

**Pediatric Pain Control Guideline**

---

NWO EMS ALS (SVIAS) – Tab 5 – Pediatric Medical Emergency Guidelines – Updated 2017_12_01
# Tab 5 Guideline 3

## Allergic Reaction | Anaphylaxis

### History
- Onset and location
- Insect sting or bite
- Food allergy / exposure
- Medication history / allergy / exposure
- New clothing, soap, detergent
- Past history of reactions
- Past medical history

### Signs / Symptoms
- Itching or hives
- Coughing / wheezing or respiratory distress
- Chest or throat constriction
- Difficulty swallowing
- Hypotension or shock
- Hypotension or shock / Edema
- Abdominal cramps

### Differential
- Urticaria (rash only)
- Anaphylaxis (systemic effect)
- Shock (vascular effect)
- Angioedema (drug induced)
- Aspiration / Airway obstruction
- Vasovagal event
- Asthma
- CHF

### Universal Patient Care
- IV / IO Access
- Cardiac Monitor
- Assess Rhythm
- Hives / Rash Only
  - No Respiratory Component
- Diphenhydramine
  - 1 mg / Kg (max 50 mg)
  - PO / IV / IO / IM / IN
- Reassess Patient
- Patient Improved
- Patient Not Improved

### Respiratory Distress / Shock
- Pulse Oximetry
  - Airway Management
  - Diphenhydramine
    - 1 mg / Kg (max 50 mg)
    - PO / IV / IO / IM / IN
  - EpiPen (Jr) Auto-injector
    - < 30 Kg (66 lbs) and > 15 Kg (33 lbs)
    - Epinephrine 1:1,000
      - 0.01 mg / Kg IM
      - (maximum 0.3 mg)
  - Epinephrine 1:10,000
    - 0.01 mg / Kg IV / IO
    - (maximum 0.3 mg)
  - Epinephrine drip
    - 0.01 – 1 mcg / kg / min IV
  - Albuterol (Wgt < 10 Kg)
    - 1.25 mg nebulized
  - Albuterol (Wgt > 10 Kg)
    - 2.5 mg nebulized
    - (May repeat x 2)
  - Atrovent
    - 0.5 mg nebulized
  - Solu Medrol
    - 1 mg / Kg slow IV / IO
    - (max 125 mg)
  - Contact Medical Control
  - Transport to appropriate facility

### Differential for Use of Epinephrine
- Respiratory Compromise
  - Airway occlusion
  - Breathy difficulty or inadequate breathing with possible wheezing, stridor, or crowing
- Shock
  - Absent or weak pulses
  - Rapid heartbeat
  - Decreased blood pressure [SBP < 70 + (2 x age) mmHg]
  - Deteriorating mental status

### Minimum Systolic BP by Age
- < 1 mo: 60 mmHg
- 1 mo to 10 y: 70 + (2 x age in years)
- ≥ 10 y: 90 mmHg

### Legend
- EMT
- EMT-P
- A-EMT
- EMR
- EMR
- MC Order
- Fluid Bolus
  - 20 mL / Kg NS or LR
- SBP < normal for age
- Pulse Oximetry
  - < 1 mo: 60 mmHg
  - 1 mo to 10 y: 70 + (2 x age in years)
  - ≥ 10 y: 90 mmHg

---

NWO EMS ALS (SVIAS) – Tab 5 – Pediatric Medical Emergency Guidelines – Updated 2017_12_01
SPECIAL CONSIDERATIONS:

1. Patients with allergic reactions can deteriorate quickly. Airway is a prime concern.

2. Epinephrine (via Auto-Injector) should be administered for:
   a. **Respiratory Compromise**
      i. Airway occlusion
      ii. Breathy difficulty or inadequate breathing with possible wheezing, stridor, or crowing
   b. **GI Complaint**
      i. Abdominal cramping, nausea, vomiting
   c. **Shock**
      i. Absent or weak pulses
      ii. Rapid heartbeat
      iii. Decreased blood pressure
      iv. Deteriorating mental status

3. Lethal edema may be localized to the tongue, uvula or other upper airway structures. Examine closely and be prepared to intubate early before swelling occurs. Nasal tracheal intubation may be preferred.

4. Any patient with respiratory symptoms or extensive reaction should receive IV or IM diphenhydramine (Benadryl).
   a. Pediatric Generalized Dosing Guidelines – diphenhydramine (Benadryl)
      i. 2 – 5 years  6.25 mg
      ii. 6 – 11 years 12.5 – 25 mg
      iii. > 12 years  25 – 50 mg

5. If severe reaction with signs | symptoms of shock and / or airway involvement and ALS not available, then administer Epipen Auto-injector for **weight > 30 Kg (66 lbs)**, otherwise use Epipen, Jr for weight **< 30 Kg (66 lbs) and > 15 Kg (33 lbs)**.
**TAB 5 GUIDELINE 4**

**ALERTED MENTAL STATUS**

### HISTORY
- < 16 years of age
- Known diabetic, medic alert tag
- Drugs, drug paraphernalia
- Report of illicit drug use or toxic ingestion
- Past medical history
- Medications
- History of trauma

### SIGNS / SYMPTOMS:
- Decreased mental status
- Change in baseline mental status
- Bizarre behavior
- Hypoglycemia
- Cool, diaphoretic skin
- Hyperglycemia
- Warm, dry skin
- Fruity breath
- Kussmaul respirations
- Signs of dehydration

### DIFFERENTIAL
- Head trauma
- CNS (stroke, tumor, seizure, infection)
- Cardiac (MI, CHF)
- Pulmonary (hypoxia)
- Infection
- Thyroid (hyper / hypo)
- Shock (septic, metabolic, traumatic)
- Diabetes (hyper / hypoglycemia)
- Toxicologic / Electrolyte abnormality
- Acidosis / Alkalosis
- Environmental exposure
- Psychiatric disorder

---

**Universal Patient Care**

**Consider Airway Management**

**Spinal Immobilization**
(if necessary)

**IV / IO Access**

**Check Blood Glucose**

**Glucose < 60**
- Oral Glucose
  - 0.5 Gm / Kg PO
  - (Mental Status?)
- 10% Dextrose
  - 5 – 10 mL / Kg IV / IO
  - Max 100 mL (10 grams)
  - q 3 – 5 minutes
  - D10 not available then
    - 25% Dextrose
    - (> 10 Kg)
    - 2 – 4 mL / Kg IV / IO
- If no IV access
  - Glucagon
    - (0.5 mg < 25 Kg) IN / IM
    - (1 mg > 25 Kg) IN / IM

**Glucose 60 – 250**
- Consider other causes:
  - BRUE
  - Head injury
  - Hypoxia
  - Overdose
  - Stroke

**Cardiac Monitor /
12-Lead ECG**

**Assess Rhythm**

**EKG Interpretation**

**Consider**
- Naloxone
  - 0.1 mg / Kg IN
  - (with respiratory depression)
- 10% Dextrose
  - (< 10 Kg)
  - 5 – 10 mL / Kg IV / IO
- 25% Dextrose
  - (> 10 Kg)
  - 2 – 4 mL / Kg IV / IO
- Glucagon
  - (0.5 mg < 25 Kg) IN / IM
  - (1 mg > 25 Kg) IN / IM
- Naloxone
  - 0.1 mg / Kg IV / IO / IM

**Minimum Systolic BP by Age**
- < 1 mo: 60 mmHg
- 1 mo to 10 y: 70 + (2 × age in years)
- ≥ 10 y: 90 mmHg

---

**Release at Scene (RAS)**

- Refusal of transport
- Adult (caregiver) present
- Blood sugar > 100
- Patient has ability to eat meal
- Patient with history of diabetes
- No history of oral diabetic medications

**Document Treat and Release -or- Transport to appropriate facility**

---

**LEGEND**

- EMT
- EMT-P
- A-EMT
- EMR
- EM Control
### TAB 5 GUIDELINE

#### BEHAVIORAL | EXCITED DELIRIUM

<table>
<thead>
<tr>
<th><strong>HISTORY</strong></th>
<th><strong>SIGNS / SYMPTOMS</strong></th>
<th><strong>DIFFERENTIAL</strong></th>
</tr>
</thead>
</table>
| - < 16 years of age or > 5 years of age
- Situational crisis
- Psychiatric illness / medications
- Injury to self or threats to others
- Medic alert tag
- Substance abuse / overdose
- Diabetes | - Anxiety, agitation, confusion
- Affect change, hallucinations
- Delusional thoughts, bizarre behavior
- Expression of suicidal / homicidal thoughts
- Poor concentration, easily distracted, psychosis
- Combative, violent
- Large pupils / light sensitivity
- Tachycardic / Hypertension | - See Altered Mental Status differential
- Hypoxia
- Alcohol intoxication
- Medication effect / overdose
- Withdrawal syndromes
- Depression
- Bipolar (manic-depressive)
- Schizophrenia, anxiety disorders, etc. |

#### Universal Patient Care

1. **Check Blood Glucose**
   - Glucose ≤ 60
   - Treat suspected medical or trauma problems per appropriate protocol
   - Altered Mental Status
   - Poisoning and Overdose
   - Head Trauma

2. **Remove patient from stressful environment**
   - Verbal techniques
     - (reassurance, calm, establish rapport)

3. **Rapid take-down w/ minimum (4) EMS crew members (If necessary)**

4. **Consider Restraints**
   - (for patient / personnel safety)

5. **IV / IO Access**
   - Fluid Bolus 20 mL / Kg NS or LR

6. **Cardiac Monitor / 12-Lead EKG**
   - Assess Rhythm
   - EKG Interpretation
   - Monitor Respiratory status, consider EtCO₂

7. **Contact Medical Control**

8. **Transport to appropriate facility**

---

### Minimum Systolic BP by Age

- < 1 mo: 60 mmHg
- 1 mo to 10 y: 70 + (2 × age in years)
- ≥ 10 y: 90 mmHg

### Restraints

- No transport in hobble or prone position.
- Do not inhibit patient breathing, ventilations

---

**Oral Glucose**
0.5 Gm / Kg PO (Mental Status?)

**10% Dextrose**
5 – 10 mL / Kg IV / IO
Max 100 ml (10 grams)
q 3 – 5 minutes
- D10 not available then - 25% Dextrose (> 10 Kg)
2 – 4 mL / Kg IV / IO
- If no IV / IO access
  - Glucagon
    - (0.5 mg < 25 Kg) IN / IM
    - (1 mg > 25 Kg) IN / IM

**Ketamine**
4 mg / Kg IM (max 400 mg)
-or- 2 mg / Kg IV (max 200 mg)

**Haloperidol**
0.05 mg / kg (Max 5 mg) IM
(may repeat in 5 min)

**Diphenhydramine**
1 mg / Kg (Max 25 mg) IM / IN

**Midazolam**
0.1 mg / Kg IM / IN
(may repeat q 5 max 10 mg)
SPECIAL CONSIDERATIONS:

1. Excited delirium is an extreme disturbance of consciousness and mental status that occurs in individuals especially when under the influence of stimulants or anti-psychotic medications and it represents an acute LIFE THREATENING MEDICAL EMERGENCY
   a. Combination of delirium, psychomotor agitation, anxiety, hallucinations, speech disturbances, disorientation, violent / bizarre behavior, insensitivity to pain, hyperthermia and increased strength. Potentially life-threatening and associated with use of physical control measures, including physical restraints and Tasers
      i. Need rapid take down, sedation, cooling measures and IV fluid replacement. These patients often suffer respiratory or cardiac arrest once subdued and should be closely monitored and transported by an ALS Unit to closest appropriate facility
   b. Most commonly seen in male subjects with a history of serious mental illness and/or acute or chronic drug abuse, particularly stimulant drugs such as cocaine, crack cocaine, methamphetamine, amphetamines or similar agents
   c. Alcohol withdrawal or head trauma may also contribute to the condition

2. Maintain objectivity during evaluation and treatment. Verbal aggression exhibited by patients can quickly escalate to physical violence. Always proceed with calm, reassuring directions for the patient. If a situation appears threatening, sufficient law enforcement presence may be necessary before patient restraint is attempted
   a. If needing to take the patient down, at minimum, utilize (4) ems crew members / police officers to secure each limb
   b. If a patient suspected of excited delirium suffers cardiac arrest, consider a fluid bolus and sodium bicarbonate early

3. Patients requiring physical restraint should be placed in the lateral recumbent position when possible. Consider your own safety and limitations when physical restraint is required.
   a. Restrained patients should never be left unattended. Continue to evaluate effectiveness of restraints and any compromise that may be caused by the restraint process (i.e., airway, breathing, circulation)
   b. Positional asphyxia – very large ventilation volumes are needed to oxygenate and blow off carbon dioxide overload. They should never be left prone or face down in handcuffs and should never by “hog-tied”

4. Do not overlook the possibility of associated domestic violence or abuse

5. Richmond Agitation-Sedation Scale
a. Validated agitation-sedation scale from age 2 months and older

b. Goal is for RASS between (0) to (-1)

<table>
<thead>
<tr>
<th>Score</th>
<th>Term</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>+ 4</td>
<td>Combative</td>
<td>Overtly combative or violent; immediate danger to staff</td>
</tr>
<tr>
<td>+ 3</td>
<td>Very agitated</td>
<td>Pulls on or removes tube(s) or catheter(s) or has aggressive behavior toward staff</td>
</tr>
<tr>
<td>+ 2</td>
<td>Agitated</td>
<td>Frequent nonpurposeful movement or patient–ventilator dyssynchrony</td>
</tr>
<tr>
<td>+ 1</td>
<td>Restless</td>
<td>Anxious or apprehensive but movements not aggressive or vigorous</td>
</tr>
<tr>
<td>0</td>
<td>Alert and Calm</td>
<td>Spontaneously pays attention to caregiver</td>
</tr>
<tr>
<td>- 1</td>
<td>Drowsy</td>
<td>Not fully alert, but has sustained (more than 10 seconds) awakening, with eye contact, to voice</td>
</tr>
<tr>
<td>- 2</td>
<td>Light Sedation</td>
<td>Briefly (less than 10 seconds) awakens with eye contact to voice</td>
</tr>
<tr>
<td>- 3</td>
<td>Moderate Sedation</td>
<td>Any movement (but no eye contact) to voice</td>
</tr>
<tr>
<td>- 4</td>
<td>Deep Sedation</td>
<td>No response to voice, but any movement to physical stimulation</td>
</tr>
<tr>
<td>- 5</td>
<td>Unarousable</td>
<td>No response to voice or physical stimulation</td>
</tr>
</tbody>
</table>
TAB 5 GUIDELINE 6
BRIEF RESOLVED UNEXPLAINED EVENT (BRUE)

1. Specific information needed
   a. An episode in an infant or child less than (2) two years old which is frightening to the observer and is characterized by one or more of the following:
      i. Apnea (central or obstructive)
      ii. Skin color change: cyanosis, erythema (redness), pallor, plethora (fluid overload)
      iii. Marked change in muscle tone
      iv. Choking or gagging not associated with feeding or a witnessed foreign body aspiration
      v. Seizure-like activity

2. Guideline
   a. Safe scene, universal precautions
   b. ABC (airway, breathing, circulation)
   c. Establish responsiveness (A.V.P.U)
   d. Check Vitals, Pulse Oximeter, Reassure patient
   e. Check Blood Glucose Level
   f. Oxygen by cannula or NRB Mask to keep pulse ox greater than 92% (may have to assist ventilation)
   g. Attach cardiac monitor (monitor lead II); Identify rhythm and treat per guideline; Documentation of rhythm should be attached to run sheet
   h. Consider establishing IV / IO with fluid. Administer 20 ml / kg fluid bolus if necessary.
   i. Contact on-line MEDICAL CONTROL and transport accordingly

SPECIAL CONSIDERATIONS:

1. Most patients will appear stable and exhibit a normal physical examination. This episode may be a sign of an underlying serious illness or injury and further evaluation by medical staff is strongly recommended.

2. Provider must explain the potential risks of refusal to the caretaker on scene.

3. In the event that the legal guardian is not with the patient and transport is being refused, it is recommended that the legal guardian should be contacted

4. Always consider the possibility of abuse in these children
**TAB 5 GUIDELINE 7**
**FOREIGN BODY AIRWAY OBSTRUCTION – CHILD**

<table>
<thead>
<tr>
<th>HISTORY</th>
<th>SIGNS / SYMPTOMS</th>
<th>DIFFERENTIAL</th>
</tr>
</thead>
</table>
| • Events leading up to incident  
  • Trauma  
  • Aspiration  
  • Medication  
  • Allergic reaction | • Anxiety  
  • No air movement  
  • Clutching throat  
  • Unresponsive  
  • Sore throat, fever,  
  • “Hot potato” voice, drooling | • Foreign Body  
  • Infection  
  • Cancer  
  • Trauma  
  • Laryngeal or tracheal fracture  
  • Oropharyngeal laceration |

**LEGEND**
- EMT
- EMT-P
- A-EMT
- EMR
- MC Order

**Universal Patient Care**

**Signs of Airway Obstruction**

**Conscious**

**Airway Obstruction Cleared**

**Perform Abdominal Thrusts**

**Cardiac Arrest Guideline**

**Transport to appropriate facility**

**Mild Airway Obstruction Signs**
- Good air exchange
- Responsive and can cough forcefully
- May wheeze between coughs

**Severe Airway Obstruction Signs**
- Poor or no air exchange
- Weak, ineffective cough or no cough at all
- High-pitched noise while inhaling or no noise at all
- Increased respiratory difficulty
- Possible cyanosis (turning blue)
- Unable to speak or move air
- Clutching the neck with the thumb and fingers
- Unresponsive
SPECIAL CONSIDERATIONS:

1. Use abdominal thrusts (the Heimlich maneuver) to relieve choking in children > 1 year of age. Give each individual thrust with the intent of relieving the obstruction. It may be necessary to repeat the thrust several times to clear the airway.

2. Choking victims initially may be responsive and then may become unresponsive. With a child choking victim who becomes unresponsive, open the airway, remove an object if you see it and begin CPR.

3. For a child victim, every time you open the airway to give breaths, open the victim’s mouth wide and look for the object. If you see an object, remove it with your fingers. If you do not see an object, keep doing CPR.

4. You can tell you have successfully removed an airway obstruction in the unresponsive victim if you:
   a. Feel air movement and see the chest rise when you give breaths
   b. See and remove a foreign body from the victim’s pharynx
TAB 5 GUIDELINE 8
FOREIGN BODY AIRWAY OBSTRUCTION – INFANT

### HISTORY
- Events leading up to incident
- Trauma
- Aspiration
- Medication
- Allergic reaction

### SIGNS / SYMPTOMS
- Anxiety
- No air movement
- Unresponsive
- Fever,
- “Hot potato” voice, drooling

### DIFFERENTIAL
- Foreign Body
- Infection
- Trauma
- Laryngeal or tracheal fracture
- Oropharyngeal laceration

---

**Universal Patient Care**

**Signs of Airway Obstruction**

**Conscious**

**NO**

- Chest Compressions
  - Attempt breaths, if air does not enter rettilt head and reattempt breaths

- Check airway / perform finger sweep if see object

- Airway Obstruction Cleared

**UNRESPONSIVE**

- Perform (5) Back blows / (5) Chest Compression Maneuver

- Airway Obstruction Cleared

**PULSE**

**NO**

- Consider Needle Cricothyrotomy

**YES**

- Unresponsive

- Cardiac Arrest Guideline

- Contact Medical Control

- Transport to appropriate facility

---

### LEGEND

- EMR
- EMT
- A-EMT
- EMT-P
- MC Order

---

**Mild Airway Obstruction Signs**
- Good air exchange
- Responsive and can cough forcefully
- May wheeze between coughs

**Severe Airway Obstruction Signs**
- Poor or no air exchange
- Weak, ineffective cough or no cough at all
- High-pitched noise while inhaling or no noise at all
- Increased respiratory difficulty
- Possible cyanosis (turning blue)
- Unable to speak or move air
- Clutching the neck with the thumb and fingers
- Unresponsive
SPECIAL CONSIDERATIONS:

1. Clearing an object from an infant’s airway requires a combination of back slaps and chest thrusts.
2. Do not perform blind finger sweeps in infants and children because the foreign body may be pushed back into the airway, causing further obstruction or injury.
3. If the victim becomes unresponsive, you will stop giving back slaps and will begin CPR. Chest compressions give effective pressure in the chest and may be able to relieve the obstruction.
## TAB 5 GUIDELINE 9
### HYPOTENSION (SHOCK)

### HISTORY
- < 16 years of age
- Blood loss
- Fluid loss
- Vomiting
- Diarrhea
- Infection

### SIGNS / SYMPTOMS
- Restlessness, confusion, weakness
- Dizziness
- Increased HR, rapid pulse
- Decreased BP
- Pale, cool, clammy skin
- Delayed capillary refill

### DIFFERENTIAL
- Trauma
- Infection
- Dehydration
- Vomiting
- Diarrhea
- Fever
- Congenital heart disease
- Medication or Toxin

---

### LEGEND
- EMR
- EMT
- EMT-P
- A-EMT
- MC Order

---

### Universal Patient Care
- Re-evaluate blood pressure
- Hypotension is defined as a SBP < 70 + (age in years x 2) mmHg

#### IV / IO Access
- Evidence or History of Trauma
- YES

#### Pediatric Trauma Guideline
- Evidence or History of Trauma
  - NO

#### Evidence or History of CHF or requiring PGE1
- NO

#### Cardiogenic Shock Guideline
- Evidence or History of Trauma
- YES

### Minimum Systolic BP by Age
- < 1 mo: 60 mmHg
- 1 mo to 10 y: 70 + (2 × age in years)
- ≥ 10 y: 90 mmHg

### Check Blood Glucose
- Oral Glucose
  - 0.5 Gm / Kg PO
  - (Mental Status?)

- 10% Dextrose
  - 5 – 10 mL / Kg IV / IO
  - Max 100 ml (10 grams)
  - q 3 – 5 minutes

- 25% Dextrose
  - 2 – 4 mL / Kg IV / IO

- If no IV access
  - Glucagon
    - (0.5 mg < 25 Kg) IN / IM
    - (1 mg > 25 Kg) IN / IM

### Glucose < 60
- Contact Medical Control
- Transport to appropriate facility

### Glucose > 60
- Cardiac Monitor / 12-Lead ECG
- Assess Rhythm
- EKG Interpretation

### SBP < normal for age
- YES

### Fluid Bolus
- 20 mL / Kg NS or LR
  - (repeat PRN)

### Consider Norepinephrine
- Initial dose of 0.05 – 0.1 mcg / Kg / min
  - or –

### Dopamine
- 5 – 20 mcg / Kg / min
  - Titrate for SBP > 90 mmHg

### Epinephrine drip
- 0.1 – 1 mcg / kg / min IV / IO

### Solu Medrol
- 1 mg / Kg slow IV / IO
  - (max 125 mg)
SPECIAL CONSIDERATIONS:

1. Dehydration Scale

<table>
<thead>
<tr>
<th>Score</th>
<th>0</th>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>General</td>
<td>Normal</td>
<td>Thirsty, restless, sleepy, irritable</td>
<td>Drowsy, limp, cold, may comatose</td>
</tr>
<tr>
<td>Eye</td>
<td>Normal</td>
<td>Slightly sunken</td>
<td>Deeply sunken</td>
</tr>
<tr>
<td>Tongue</td>
<td>Moist</td>
<td>Sticky</td>
<td>Dry</td>
</tr>
<tr>
<td>Tears</td>
<td>Present</td>
<td>Decreased</td>
<td>Absent Tears</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Score</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>No Dehydration</td>
</tr>
<tr>
<td>1 – 4</td>
<td>Mild to Moderate Dehydration</td>
</tr>
<tr>
<td>5 – 8</td>
<td>Severe Dehydration</td>
</tr>
</tbody>
</table>

2. Maintenance fluid is calculated using the 4-2-1 rule
   a. 1st 10 kg of body weight x 4 ml
   b. 2nd 10 kg of body weight x 2 ml
   c. Remaining kg of body weight x 1 ml
   d. Example for 40 kg person
      i. 10 kg x 4 ml = 40 ml
      ii. 10 kg x 2 ml = 20 ml
      iii. 20 kg x 1 ml = 20 ml
      iv. Total maintenance fluid = 80 ml
TAB 5 GUIDELINE 10
INFANT ABANDONMENT (OPERATION SAFE HAVEN)

Dispatch may receive calls requesting evaluation of an infant (< 30 days old) who has been delivered by parent(s) to any EMS or police station. (Pursuant to ORC 2152.3515 et. Seq., effective 03/24/2009 and local safety service entity agreement).

- EMS provider shall be dispatched to perform any evaluation or intervention necessary to protect the infant’s health or safety, and
- Transport the child to the closest appropriate hospital emergency department.

Emergency Medical Services Workers Obligations to Whom a Child which is Less Than 30 Days Old is Delivered (ORC 2151.3515 et.seq. Effective 03/24/2009)

While acting in their official capacity an EMS provider (EMR, EMT, AEMT or Paramedic) on behalf of the Emergency Services Organization (as defined by 4765.01) that employs the worker or for which the worker provides services, shall take possession of a child who is seventy-two hours old or younger if that child’s parent has voluntarily delivered the child to that person without the parent expressing an intent to return for the child.

Upon taking possession of the child, the Emergency Services Organization shall do all of the following:

1. Perform any act necessary to protect the child’s health or safety;
2. Notify EMS Dispatch that the child has been taken into possession;
3. When forms developed by the Ohio Department of Jobs and Family Service (ODJFS) are available designed to gather medical information concerning the child and the child’s parents, provide such to surrendering parent;
4. If available, offer written materials developed by ODJFS that describe services available to assist parents and newborns;
5. Only if the child appears to have a condition which reasonably indicates physical or mental abuse or neglect-attempt to identify and, if necessary, pursue the person who delivered the child;
EMS Workers Shall Not:

1. Coerce or otherwise try to force the caregiver into revealing the identity of the child’s parents;
2. Pursue or follow the caregiver after the caregiver leaves the place at which the child was delivered;
3. Coerce or otherwise try to force the caregiver / parent not to desert the child;
4. Coerce or otherwise try to force the caregiver / parent to accept the medical information forms promulgated by the ODJFS;
5. Coerce or otherwise try to force caregiver / parent to accept materials promulgated by the ODJFS;

Items (1) and (2) above do not apply to a person who delivers or attempts to deliver a child who has suffered any physical or mental wound, injury, disability, or condition of a nature that reasonably indicates abuse or neglect of the child.
## TAB 5 GUIDELINE 11

### POISONING | OVERDOSE | TOXIC INGESTION

<table>
<thead>
<tr>
<th>HISTORY</th>
<th>SIGNS / SYMPTOMS</th>
<th>DIFFERENTIAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 16 years of age</td>
<td>Mental status changes</td>
<td>Tricyclic antidepressants (TCAs)</td>
</tr>
<tr>
<td>Ingestion or suspected ingestion of a potentially toxic substance</td>
<td>Hypotension / Hypertension</td>
<td>Acetaminophen (Tylenol)</td>
</tr>
<tr>
<td>Substance ingested, route, quantity</td>
<td>Decreased respiratory rate</td>
<td>Depressants</td>
</tr>
<tr>
<td>Time of ingestion</td>
<td>Tachycardia, dysrhythmias</td>
<td>Stimulants</td>
</tr>
<tr>
<td>Reason (suicidal, accidental, criminal)</td>
<td>Seizures</td>
<td>Anticholinergic</td>
</tr>
<tr>
<td>Available medication in home</td>
<td></td>
<td>Cardiac medications</td>
</tr>
<tr>
<td>Past medical history, medications</td>
<td></td>
<td>Solvents, alcohols, cleaning agents</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Insecticides (organophosphates)</td>
</tr>
</tbody>
</table>

### Minimum Systolic BP by Age
- < 1 mo: 60 mmHg
- 1 mo to 10 y: 70 + (2 × age in years)
- ≥ 10 y: 90 mmHg

### Universal Patient Care
- Cardiac Monitor
- IV / IO Access
- Fluid Bolus 20 mL / Kg
- Altered Mental Status
  - Blood Sugar < 60 mg / dl
  - Respiratory Depression
- Beta Blocker
- Calcium Channel Blocker
- CO Poisoning
- Cyanide
- Organophosphate / Nerve Agent (SLUDGEHM)
- Tricyclic Antidepressant (Tachycardia / QRS widening)
- Other

### Contact Medical Control
- Transport to appropriate facility

### Appropriate Guideline

### 10% Dextrose
- 5 – 10 mL / Kg IV / IO
- Max 100 mL (10 grams)
- q 3 – 5 minutes
- D10 not available then –
  - 25% Dextrose (> 10 Kg)
  - 2 – 4 mL / Kg IV / IO

### Glucagon
- (0.5 mg < 25 Kg) IN / IM
- (1 mg > 25 Kg) IN / IM

### Naloxone
- 0.1 mg / Kg IV / IO / IM

### Glucagon 1V / IN / IM
- (0.5mg < 25 Kg)
- (1 mg > 25 Kg)

### Calcium Gluconate (10%)
- 20 mg / Kg slow IV / IO

### Amyl Nitrite
- 0.3 ml in 4 x 4
- Hold q 30 sec / minute

### NRB Mask @ 15 L O2

### CPAP with PEEP @ 5 cm H2O

### Atropine
- 0.02 mg / Kg IV / IO
- (Minimum 0.1 mg)

### Sodium Bicarbonate
- 1 mEq / Kg IV / IO

### Hypotension, Seizures, Ventricular dysrhythmias, or Mental status changes
SPECIAL CONSIDERATIONS:

1. General:
   a. Improve the care of patients with poisonings, and environmental/biochemical terrorism exposures in the pre-hospital setting. Provide for the most timely and appropriate level of care to the patient, including the decision to transport or treat on the scene.
   b. If no immediate life threat or need for transport is identified, EMS personnel may conference the patient/caller with the Poison Center Specialist at the Poison Control Center at 800-222-1222.
      i. The Poison Center Specialist at the State Poison Center will evaluate the exposure and make recommendations regarding the need for on-site treatment and/or hospital transport in a timely manner.
      ii. If the patient is determined to need EMS transport, the poison control center Specialist will contact the receiving hospital and provide information regarding the poisoning, including treatment recommendations. EMS may contact medical control for further instructions or to discuss transport options.
      iii. If the patient is determined not to require EMS transport, personnel will give the phone number of the patient/caller to the Poison Control Center Specialist. The Specialist will initiate a minimum of one follow-up call to the patient/caller to determine the status of patient.
      iv. Minimal information that should be obtained from the patient for the state poison center includes:
         - Name and age of patient
         - Substance(s) involved
         - Time of exposure
         - Any treatment given
         - Signs and symptoms
      v. Minimal information which should be provided to the State Poison Center for mass poisonings, including biochemical terrorism and HazMat, includes:
         - Substance(s) involved
         - Time exposure
         - Signs and symptoms
         - Any treatment given
   c. Do not induce vomiting for
      - Hydrocarbons
      - Strong Acids
      - Strong Base Iodides
      - Silver Nitrate
      - Strychnine
      - Who are not alert
   d. Do not neutralize acids with alkali or Do not neutralize alkali with acids
   e. Product labels and home kits may be misleading and dangerous
f. All empty containers of ingested material should accompany patient to the hospital
g. Do not rely on patient history of ingestion, especially in suicide attempts
h. For blood glucose values < 60mg/dl, administer Dextrose (1-2mL/kg IV).
   i. The following Dextrose concentrations and dosing are recommended:
      1. Pediatrics < 10 kg – Dextrose 10 % give 5 – 10 mL / Kg.
      2. Pediatrics > 10 kg – Dextrose 25 % give 2 – 4 mL / Kg.

2. Maximum drug dosages:
   a. Atropine = 2 mg / dose (minimum 0.1mg)
   b. Calcium Chloride = 1 Gram
   c. Glucagon = 1 mg
   d. Narcan = 2 mg
   e. Sodium Bicarbonate = 50 mEq

3. Overdose / Ingestion concerns:
   a. Acetaminophen: Initial presentation normal or nausea/vomiting. If not detected and
      treated, will cause irreversible liver failure
   b. Anticholinergic: Increased HR, increased temperature, dilated pupils, mental status
      changes
   c. Aspirin: Early signs consist of abdominal pain, vomiting ringing in the ears. Tachypnea
      and altered mental status may occur later. Renal dysfunction, liver failure, and or cerebral
      edema among other things can take place later
   d. Cardiac Medications: Dysrhythmias and mental status changes
   e. Depressants: Decreased HR, decreased BP, decreased temperature, decreased
      respirations, non-specific pupils
   f. Insecticides: Increased or decreased HR, increased secretions, nausea, vomiting, diarrhea,
      pinpoint pupils
   g. Solvents: Nausea, vomiting, and mental status changes
   h. Stimulants: Increased HR increased BP, increased temperature, dilated pupils, and
      seizures
   i. Tricyclics: 4 major areas of toxicity: seizures; dysrhythmias; hypotension; decreased
      mental status or coma; rapid progression from alert mental status to death
<table>
<thead>
<tr>
<th>Condition</th>
<th>Treatment</th>
</tr>
</thead>
</table>
| Carbon Monoxide | • Carbon monoxide is produced from a variety of sources such as vehicles, gasoline engines, camp stoves, lanterns, burning charcoal and wood, gas ranges, heating systems and poorly vented chimneys. Structural fires are another common source of CO exposure.  
• Normal Carbon Monoxide Levels  
  1 – 2 %  
  • Factors which may reduce the reliability of carbon monoxide readings:  
  • Poor peripheral circulation (hypovolemia, hypotension, hypothermia).  
  • Excessive sensor motion.  
  • Fingernail polish (may be removed with finger nail polish remover).  
  • Irregular heart rhythms (atrial fibrillation, SVT, etc.).  
  • Jaundice.  
  • Consider transport to hospital with hyperbaric chamber for potential hyper oxygen therapy. Consult with On-Line Medical Control for diversion approval. |
| Cyanide      | • Any smoke inhalation victim with mental status changes should also be treated for Cyanide Poisoning if medication is available, or if known exposure to Cyanide. Any patient or firefighter that goes into cardiac arrest after exposure to smoke from a fire.  
  • Present history: when last well, progression of present state, prior symptoms such as increase in respirations, convulsions, coma.  
  • Check for bottles and read ingredient label. If patient is in an industrial setting, ask if they use Cyanide.  
  • Principal manifestations of poisoning with these compounds are rapid respirations, blood pressure fall, convulsions and coma; may also cause lightheadedness, vomiting, flushing, headache, drowsiness, hypotension, rapid pulse and unconsciousness.  
  • Check for odor of “BITTER ALMONDS”.  
  • Alternative therapy includes Hydroxocobalamin (70 mg / kg not to exceed a single dose of 5 grams in 200 ml NS / D5W). Administered over 5 minutes. |
| Hydrofluoric Acid | • Skin exposure - 2.5% Calcium Gluconate gel applied to affected area, may be reapplied every 10-15 minutes.  
• Inhalation exposure - 2.5% Calcium Gluconate may be administered by aerosol.  
• Eye exposure - 1% Calcium Gluconate continuous irrigation.  
• EMT or Advanced EMT should continue the therapy initiated by previous EMS providers in regards to dermal or inhalation therapy of Calcium Gluconate. |
|---|---|
| Nerve Agent Exposure / Organophosphate Poisoning | • Symptoms  
• S.L.U.D.G.E: Salivation, Lacrimation, Urination, Defecation, GI distress, Emesis  
• D.U.M.B.B.E.L.S: Diarrhea, Urination, Miosis, Bradycardia, Bronchorrhea, Emesis, Lacrimation, Salivation  
• Mild symptoms:  
  • 1 Duodote  
  • Atropine 1mg IVP every 15 min until heart rate reaches 180  
  • Moderate: Unable to ambulate but still conscious  
  • 1 Duodote  
  • Atropine 2mg IVP every 15min until heart rate reaches 180  
• Severe: Unconscious / seizures  
  • 3 Duodote  
  • Atropine 5mg IVP every 15min until heart rate reaches 180

Do not administer more than three (3) DuoDote Auto-Injectors or three (3) Mark 1 Kits unless definitive medical care is available. The limit of 3 doses is specific to the pralidoxime component of the DuoDote and Mark 1 Kit. If necessary, additional doses of atropine can be administered if the 3 doses of DuoDote or Mark 1 Kit injections do not produce an adequate response.
TAB 5 GUIDELINE 12
POISONING | OVERDOSE | OPIATE

**HISTORY**
- What type of ingestion
- When did ingestion occur
- How Much
- Reason for ingestion
- Actions of bystanders
- Previous psychiatric disorders
- Diseases / Medications: ie depressants
- Medical alert tags

**SIGNS / SYMPTOMS**
- Increased salivation
- Soot or burns in mouth
- Irritation of the eyes
- Sweating and skin burns
- Decreased respiratory rate
- Lung findings (ie edema)
- Delayed capillary refill
- Tachycardia / Arrhythmias
- Seizures

**ENVIRONMENT**
- Acetaminophen
- Anticholinergic
- Aspirin
- Cardiac medications
- Insecticides (organophosphates)
- Solvents, alcohols, cleaning agents
- Stimulants

---

**Universal Patient Care**

**Exposure control**
(PPE = Non-Porous Gloves / Eye Protection / N95 Mask / Gown)

**Ensure crew safety**
Avoid evidence tampering

**Respiratory Rate ≤ 12**

- **YES**
  - Apply Pulse Ox
  - Administer Oxygen for Saturation ≤ 94%
  - Airway Management
  - Check Blood Glucose
  - Glucose ≤ 60
  - Cardiac Monitor / 12-Lead ECG
  - Assess Rhythm
  - IV / IO Access
  - Altered Mental Status
  - Presumed Opiate Overdose
  - Respiratory Rate ≤ 8

- **NO**
  - Position of patient comfort
  - Appropriate Guideline

**10% Dextrose**
5 – 10 mL / Kg IV / IO
Max 100 ml (10 grams)
q 3 – 5 minutes
- D10 not available then –
25% Dextrose (> 10 Kg)
2 – 4 mL / Kg IV / IO

**Glucagon**
(0.5 mg < 25 Kg) IN / IM
(1 mg > 25 Kg) IN / IM

**Naloxone 0.1 mg / Kg IN**
(administer max dose 0.5 mg / dose every 1 – 2 minutes)

**Naloxone 0.1 mg / Kg IV / IO / IM**
(administer max dose 0.5 mg / dose every 1 – 2 minutes)
May repeat to max 8 mg

**Minimum Systolic BP by Age**
- < 1 mo: 60 mmHg
- 1 mo to 10 y: 70 + (2 x age in years)
- ≥ 10 y: 90 mmHg

**SPECIAL CONSIDERATIONS:**
1. The main focus for treatment is to ensure proper respiratory and oxygen saturation status. The goal is “**NOT TO WAKE**” the patient up, but to ensure adequate oxygenation and ventilation. Naloxone administration should be at no more than 0.5 mg aliquots every 1 – 2 minutes. While naloxone is being administered ensure that proper ventilation is being performed with bag-valve mask and oxygen

2. All suspected patients with opiate overdose should be handled using non-porous type gloves (nitrile style, non-latex) and eye protection. Consider wearing N-95 mask and gowns for any patient that has visible powder on body, or if there is visible powder in patient care area

3. All pediatric patients with suspected opiate overdose **MUST BE** transported for continued monitoring and medical

4. Vehicle and Equipment Decontamination
   a. Any concern for opiate contamination within the vehicle or on the equipment should be cleaned using N95 mask with non-porous type gloves (nitrile style, non-latex) and eye protection
   b. Spill Clean Up Instructions
      i. Wear appropriate PPE
      ii. Add one teaspoon full of powder OxiClean™ to 500 mL water
      iii. Shake gently until all powder is in solution
      iv. Completely cover spill with spray
      v. Within 15 minutes, scrub with a paper towel until dry (solution evaporates over time and this decreases the effectiveness of decontamination)
      vi. All PPE (except goggles) and paper towels must be disposed of in a biohazardous waste bin
### TAB 5 GUIDELINE 13
**PSYCHIATRIC PATIENT**

<table>
<thead>
<tr>
<th>HISTORY</th>
<th>SIGNS / SYMPTOMS</th>
<th>DIFFERENTIAL</th>
</tr>
</thead>
</table>
| • Situational crisis  
• Psychiatric illness / medications  
• Injury to self or threats to others  
• Medic alert tag  
• Substance abuse / overdose  
• Diabetes | • Anxiety, agitation, confusion  
• Affect change, hallucinations  
• Delusional thoughts, bizarre behavior  
• Expression of suicidal / homicidal thoughts  
• Poor concentration, easily distracted, psychosis  
• Combative, violent | • See Altered Mental Status differential  
• Hypoxia  
• Alcohol intoxication  
• Medication effect / overdose  
• Withdrawal syndromes  
• Depression  
• Bipolar (manic-depressive)  
• Schizophrenia, anxiety disorders, etc. |

#### Universal Patient Care
- Remove patient from stressful environment

#### Patient having anxiety attack
- Consider **Midazolam**
  - 0.1 mg / kg IM / IN (may repeat q 5 max 5 mg)
  - or: Alternative Benzodiazepine Equivalent
- Consider **Haldol**
  - 0.05 mg / kg IM (Age 6 – 12) max 5 mg
  - 5 mg IM (Age > 12)

#### Patient Agitated / Aggressive
- **Oral Glucose**
  - 0.5 Gm / Kg PO (Mental Status?)

#### Midazolam
- 0.1 mg / kg IM / IN (may repeat q 5 max 5 mg)
- or: Alternative Benzodiazepine Equivalent

#### Haldol
- 0.05 mg / kg IM (Age 6 – 12)
- 5 mg IM (Age > 12)

#### Check Blood Glucose
- Glucose ≤ 60

#### Contact Medical Control
- Transport to appropriate facility

#### Minimum Systolic BP by Age
- < 1 mo: 60 mmHg
- 1 mo to 10 y: 70 + (2 × age in years)
- ≥ 10 y: 90 mmHg

### LEGEND
- EMR
- EMT
- A-EMT
- EMT-P
- MC Order

**HISTORY**
- Situational crisis
- Psychiatric illness / medications
- Injury to self or threats to others
- Medic alert tag
- Substance abuse / overdose
- Diabetes

**SIGNS / SYMPTOMS**
- Anxiety, agitation, confusion
- Affect change, hallucinations
- Delusional thoughts, bizarre behavior
- Expression of suicidal / homicidal thoughts
- Poor concentration, easily distracted, psychosis
- Combative, violent

**DIFFERENTIAL**
- See Altered Mental Status differential
- Hypoxia
- Alcohol intoxication
- Medication effect / overdose
- Withdrawal syndromes
- Depression
- Bipolar (manic-depressive)
- Schizophrenia, anxiety disorders, etc.
SPECIAL CONSIDERATIONS:

1. Richmond Agitation-Sedation Scale
   a. Validated agitation-sedation scale from age 2 months and older
   b. Goal is for RASS between (0) to (-1)

<table>
<thead>
<tr>
<th>Score</th>
<th>Term</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>+ 4</td>
<td>Combative</td>
<td>Overtly combative or violent; immediate danger to staff</td>
</tr>
<tr>
<td>+ 3</td>
<td>Very agitated</td>
<td>Pulls on or removes tube(s) or catheter(s) or has aggressive behavior toward staff</td>
</tr>
<tr>
<td>+ 2</td>
<td>Agitated</td>
<td>Frequent nonpurposeful movement or patient–ventilator dyssynchrony</td>
</tr>
<tr>
<td>+ 1</td>
<td>Restless</td>
<td>Anxious or apprehensive but movements not aggressive or vigorous</td>
</tr>
<tr>
<td>0</td>
<td>Alert and Calm</td>
<td>Spontaneously pays attention to caregiver</td>
</tr>
<tr>
<td>- 1</td>
<td>Drowsy</td>
<td>Not fully alert, but has sustained (more than 10 seconds) awakening, with eye contact, to voice</td>
</tr>
<tr>
<td>- 2</td>
<td>Light Sedation</td>
<td>Briefly (less than 10 seconds) awakens with eye contact to voice</td>
</tr>
<tr>
<td>- 3</td>
<td>Moderate Sedation</td>
<td>Any movement (but no eye contact) to voice</td>
</tr>
<tr>
<td>- 4</td>
<td>Deep Sedation</td>
<td>No response to voice, but any movement to physical stimulation</td>
</tr>
<tr>
<td>- 5</td>
<td>Unarousable</td>
<td>No response to voice or physical stimulation</td>
</tr>
</tbody>
</table>

2. Mental Health Holds (Pink Slip)
   a. If a patient has an isolated mental health complaint (e.g. suicidality), and does not have a medical complaint or need specific medical intervention, then that patient may be appropriately transported by law enforcement according to their guidelines.
   b. If a patient has a psychiatric complaint with associated illness or injury (e.g. overdose, altered mental status, chest pain, etc), then the patient should be transported by EMS.
   c. If a patient with a psychiatric complaint is intoxicated or otherwise lacks decision making capacity for any other reason, than no Mental Health Hold is needed and such a patient should be brought to an emergency department for evaluation and stabilization with implied consent.
   d. If EMS is called to evaluate a patient with an isolated psychiatric complaint who is not intoxicated, or otherwise lacking decision making capacity, and who refuses treatment or transport, and law enforcement are not willing to transport patient, then EMS should contact MEDICAL CONTROL.
i. If there is a reasonable concern for suicidal or homicidal ideation, or grave disability from another mental health condition, then **MEDICAL CONTROL** may give a verbal order placing the patient on a Mental Health Hold and direct EMS personnel to transport the patient against his or her will in accordance with State of Ohio statutes.

ii. The physician’s name, and time and date of the Mental Health Hold must be recorded on the PCR. Effort should be made to obtain consent for transport from the patient, and to preserve the patient’s dignity throughout the process.

e. A patient being transported on a Mental Health Hold may be transported to any appropriate receiving emergency department
TAB 5 GUIDELINE 14
RESPIRATORY DISTRESS

HISTORY
• < 16 years of age
• Time of onset
• Possibility of foreign body
• Medical history
• Medications
• Fever or respiratory infection
• Other sick siblings
• History of trauma

SIGNS / SYMPTOMS
• Wheezing or stridor
• Respiratory retractions
• Increased heart rate
• Altered level of consciousness
• Anxious appearance

DIFFERENTIAL
• Asthma
• Aspiration
• Foreign body
• Infection
  • Pneumonia
  • Croup
  • Epiglottitis
• Congenital heart disease
• Medication or toxin
• Trauma

LEGEND
EMR
EMT
A-EMT
EMT-P
MC Order

Universal Patient Care

YES
Respiratory Insufficiency

NO
Position of patient comfort

Airway Management

Pulse Oximetry
Cardiac Monitor
Assess Rhythm

Wheezing
Age < 18 months with 1st wheeze

Albuterol 1.25 mg nebulized
Wgt < 10 Kg
Albuterol 2.5 mg nebulized
(May repeat x 2)

IV / IO Access

Severe symptoms
• Hypoxia despite O2
• Severe retractions
• Cyanosis
• Altered LOC

Nebulized Epi (1:1000)
0.25 mL / Kg with 2 mL NS

Minimum Systolic BP by Age
• < 1 mo: 60 mmHg
• 1 mo to 10 y: 70 + (2 × age in years)
• ≥ 10 y: 90 mmHg

Wheezing
Age > 18 months or history of wheeze

Albuterol 2.5 mg nebulized
(May repeat x 2)
Wgt > 10 Kg

Atrovent 0.25 mg nebulized
1st or 2nd albuterol treatment
(children age 5 - 12)

Atrovent 0.5 mg nebulized
(children age > 12)

IV / IO Access

Severe symptoms
• Stridor at rest
• Severe retractions
• Cyanosis
• Altered LOC

Prednisone 2 mg / Kg PO
-or-
Solu Medrol 1 mg / Kg IV / IO

Consider Epinephrine (1:1000)
0.01 mg / Kg IM
(maximum 0.3 mg / dose)

Contact Medical Control
Transport to appropriate facility

Stridor / Croup

3 mL Normal Saline
Nebulized -or-
Epinephrine (1:1000)
0.25 mL / Kg nebulized
(maximum 5 ml) -or-
Racemic Epi 0.5 ml with 3 ml
Normal Saline nebulized

IV / IO Access

Severe symptoms
• Stridor at rest
• Severe retractions
• Cyanosis
• Altered LOC

Epinephrine (1:1000)
0.01 mg / Kg IM
(maximum 0.3 mg / dose)

Solu Medrol 1 mg / Kg IV / IO
-or- Prednisone 2 mg / Kg PO

NWO EMS ALS (SVIAS) – Tab 5 – Pediatric Medical Emergency Guidelines – Updated 2017_12_01 Page 32
SPECIAL CONSIDERATIONS:

1. Do not force a child into a position. They will protect their airway by their body position.

2. Upper airway obstruction and stridor are usually due to croup, viral disease with inflammation, edema, or narrowing of the larynx, trachea or bronchioles. Croup usually affects infants and toddlers (< 2 years of age). Most children with croup present with a history of cold-type symptoms followed by the development of a barking or “seal” cough, stridor and various levels of respiratory distress.

3. Wheezing is the hallmark of lower airway obstruction. Decreased unequal or absent breath sounds also can occur. The respiratory rate is generally rapid (although when expiration becomes prolonged, the rate may fall). Bronchiolitis, asthma, and foreign body obstruction should be strongly considered. Bronchiolitis is a lower airway obstruction from viral illness with wheezing in the toddler or infant under the age of 2 years.

4. Atrovent (Ipratropium bromide)
   a. **Give with either the 1st or 2nd albuterol treatment. The combination treatment of albuterol and atrovent should only be administered once.**
   b. **Do not give to children age < 5**

5. With respiratory distress of sudden onset, think of foreign body airway aspiration. The mouth is a major sensory organ for children. The paramedic must anticipate infants and children placing a multitude of obstructive hazards in their airway.

6. Total airway obstructions that cannot be cleared by conventional methods may require surgical needle cricothyrotomy in emergency situations.

7. Epiglottitis typically affects children > 2 years of age. It is bacterial, with fever, rapid onset, possible stridor, patient wants to sit up to keep airway open, and drooling is common. Airway manipulation and patient agitation may lead to total airway obstruction and worsening of the patient’s condition. IV attempts, which may increase patient agitation, are strongly discouraged.

8. If children with croup, Epiglottitis or laryngeal edema present in respiratory arrest, it is usually due to exhaustion or airway obstruction. Ventilation by bag-valve mask may be difficult due to airway edema. Epiglottitis and croup can become total airway obstructions very quickly.
### TAB 5 GUIDELINE 15
#### SEIZURE

**HISTORY**
- Fever
- Prior history of seizures
- Seizure medications
- Reported seizure activity
- History of recent head trauma
- Congenital abnormality

**SIGNS / SYMPTOMS**
- Observed seizure activity
- Altered mental status
- Hot, dry skin or elevated body temperature

**DIFFERENTIAL**
- Infection / Fever
- Head trauma
- Medication or toxin
- Hypoxia or respiratory failure
- Hypoglycemia
- Metabolic abnormality / acidosis
- Tumor

**LEGEND**
- EMT
- EMT-P
- MC Order
- A-EMT
- EMR

**Oral Glucose**
- 0.5 Gm / Kg PO (Mental Status?)

**10% Dextrose**
- 5 – 10 mL / Kg IV / IO
- Max 100 ml (10 grams)
- q 3 – 5 minutes
- D10 not available then -
  **25% Dextrose (> 10 Kg)**
  - 2 – 4 mL / Kg IV / IO

If no IV access
**Glucagon**
- (0.5 mg ≤ 25 Kg) IN / IM
- (1 mg > 25 Kg) IN / IM

**Universal Patient Care**
- Consider Spinal Immobilization
- Airway Management
- Check Blood Glucose

**IV / IO Access**
- Febrile
  - Tympanic temperature measurement

**Febrile**
- Cooling Measures
- Cardiac Monitor / 12-Lead EKG
- Assess Rhythm
- EKG Interpretation

**Active Seizure**

**Focused History / Physical Exam**
- Evidence of shock or trauma?
- Consider
- Fluid Bolus 20 mL / Kg IV / IO
- Appropriate Guideline

**Midozalam**
- 0.1 mg / Kg IV / IO
- 0.2 mg / Kg IN / IM
  - (Repeat PRN)

**Diazepam**
- 0.2 mg / Kg IV / IO / IM
  - (Repeat PRN)

**Uncontrolled with Benzodiazepine**
- Keppra 20 mg / Kg IV / IO
  - (max 1 Gram)

**Minimum Systolic BP by Age**
- < 1 mo: 60 mmHg
- 1 mo to 10 y: 70 + (2 × age in years)
- ≥ 10 y: 90 mmHg
SPECIAL CONSIDERATIONS:

1. If actively seizing patient is encountered, move hazardous material away from the patient. Protect the patient’s head from injury. Remember to always immediately check for pulses after seizure activity stops.

2. Trauma to the tongue during seizure activity is unlikely to cause serious problems. Attempt to force anything into the patient’s airway may cause complete obstruction.

3. If febrile, remove clothing and sponge with room temperature water. Do not delay transport for cooling measures. Removal of clothing may be all that is necessary.

4. Unlike the adult with a diagnosis of Epilepsy, a child who has had a seizure usually requires transport. Do not be falsely reassured by a child who appears to return to normal status quickly.

5. Seizures in children may not always present tonic-clonic (generalized) in nature. Unusual gaze/eye movement, unresponsiveness, or localized twitching may be the only clue. Parents or caregivers are usually very sensitive to the abnormality and potential seriousness of the child’s presentation.

6. The diagnosis of “febrile seizures” can be difficult to make in the field. Other causes must be excluded. Temperature measurements (tympanic thermometer) should be acquired with suspicion of fever.

7. Status epilepticus is defined as two or more successive seizures without a period of consciousness or recovery. This is a true emergency requiring rapid airway control, treatment, and transport. Grand Mal seizures (generalized) are associated with loss of consciousness, incontinence, and tongue trauma. Focal seizures (petit mal) effect only a part of the body and are not usually associated with a loss of consciousness. Jacksonian seizures are seizures that start as a focal seizure and become generalized.

8. If evidence or suspicion of trauma, full c-spine immobilization is required.

9. The following Dextrose concentrations and dosing are recommended:
   a. Pediatrics < 10 kg – Dextrose 10% give 5 – 10 mL / Kg
   b. Pediatrics > 10 kg – Dextrose 25% give 2 – 4 mL / Kg
## TAB 5 GUIDELINE 16

### SEPSIS

#### HISTORY
- Fever
- Infection
- Medications
- Pregnancy
- Fluid loss - vomiting, diarrhea
- History of poor oral intake

#### SIGNS / SYMPTOMS
- Fever
- Restlessness, confusion
- Weakness, dizziness
- Weak, rapid pulse
- Pale, cool, clammy skin
- Delayed capillary refill
- Hypotension

#### DIFFERENTIAL
- Shock
- Hypovolemia
- Cardiogenic
- Septic
- Neurogenic
- Anaphylactic
- Bacterial, viral or fungal infection

### LEGEND

- EMT
- EMT-P
- A-EMT
- EMT-P
- MC Order

### HISTORY

- **Fever**
- **Infection**
- **Medications**
- **Pregnancy**
- **Fluid loss - vomiting, diarrhea**
- **History of poor oral intake**

### SIGNS / SYMPTOMS

- **Fever**
- **Restlessness, confusion**
- **Weakness, dizziness**
- **Weak, rapid pulse**
- **Pale, cool, clammy skin**
- **Delayed capillary refill**
- **Hypotension**

### DIFFERENTIAL

- **Shock**
- **Hypovolemia**
- **Cardiogenic**
- **Septic**
- **Neurogenic**
- **Anaphylactic**
- **Bacterial, viral or fungal infection**

### Universal Patient Care

#### SIRS Criteria
- Temp > 38.5°C or < 36°C
- Tachycardia (or bradycardia if < 1 yo)
- Tachypnea or Intubated

#### Consider Airway Management

#### Check Blood Glucose

- **IV / IO Access**
- **SBP < normal for age**

#### Glucose ≤ 60

- **Consider Airway Management**
- **Check Blood Glucose**

#### Glucose > 60

- **Tachycardia > normal for age**
- **Fluid maintenance**

#### Fluid Bolus 20 ml / kg

- **lactated ringers**

- **Norepinephrine**
  - 0.05 / kg / min IV / IO
  - (max 30 mcg / min)

- **Epinephrine drip**
  - 0.1 – 1 mcg / kg / min IV / IO

- **Solu Medrol**
  - 1 mg / kg
  - IV / IO (max 125 mg)

#### NO

- **Transport to appropriate facility**
- **Contact Alternative Guidelines**
- **Observe and Reassess**

### Minimum Systolic BP by Age

- < 1 yo: 60 mmHg
- 1 yo to 10 y: 70 + (2 × age in years)
- ≥ 10 y: 90 mmHg

### For interfacility septic patient transports, delay transport until antibiotics have been initiated, or initiate antibiotics enroute

### Contact Medical Control

### Transport to appropriate facility
SPECIAL CONSIDERATIONS:

1. Sepsis is a vasodilatory shock. Patients have relative volume depletion. Aggressive fluid resuscitation is the mainstay of treatment.

2. Acute sepsis management should be initiated as soon as possible and completed within 6 hours. If patient is > 6 hours from presentation contact medical control for direction.

3. Patients with sepsis require aggressive therapy including IV fluids (lactated ringer is the fluid of choice), antibiotic administration and if necessary vasopressors and airway management.

4. Patient should receive at minimum 20 ml / kg fluid bolus before initiation of vasopressors.

5. **Maintenance fluid is calculated using the 4-2-1 rule**
   a. 1st 10 kg of body weight x 4 ml
   b. 2nd 10 kg of body weight x 2 ml
   c. Remaining kg of body weight x 1 ml
   d. Example for 80 kg person
      i. 10 kg x 4 ml = 40 ml
      ii. 10 kg x 2 ml = 20 ml
      iii. 60 kg x 1 ml = 60 ml
      iv. Total maintenance fluid = 120 ml

6. Epinephrine
   a. Drip
      i. Mix 1 mg epinephrine (1:10,000 or 1:1000 concentration) in 250 ml bag normal saline or D5W to give 4:1 concentration, mix in 500 ml bag normal saline or D5W to give 2:1 concentration. Titrate 0.01 – 1 mcg /kg / min.
TAB 5 GUIDELINE 17
SUSPECTED ABUSE | NEGLECT

**HISTORY**
- Events leading up to call
- Has individual gone to the bathroom, showered
- History of trauma

**SIGNS / SYMPTOMS**
- Bruising to extremities
- Vaginal injury
- Withdrawal from caregiver / EMS provider

**DIFFERENTIAL**
- Sexual abuse
- Neglect
- Traumatic injuries

---

**Universal Patient Care**

Ensure scene safety and offender is not near the victim

**Consider Spinal Immobilization**

Airway Management

Provide appropriate emergency medical treatment for all injuries found

Be calm and assuring with sensitivity toward the patient

DO NOT make unnecessary physical contact with the patient

**Concern to Physical Abuse**

Make Patient NPO

Assess for psychological characteristics of abuse

Assess for physical abuse

Assess for signs of neglect

Document careful physical exam and any comments made by victim, family, bystanders

** Concern to Sexual Abuse**

Make Patient NPO

Discourage patient going to bathroom

Don’t allow patient to change clothes or wash

**Contact Medical Control**

Transport to appropriate facility, severely injured patients should be transported to trauma center

Report suspected case of child abuse, neglect or exploitation to Children Services (855-642-4453)

**To Be Transported to Trauma Center**

Stabbing
Choking
Electrocution
Burn

---

**Minimum Systolic BP by Age**

- < 1 mo: 60 mmHg
- 1 mo to 10 y: 70 + (2 × age in years)
- ≥ 10 y: 90 mmHg

---

**LEGEND**

EMR
EMT
A-EMT
EMT-P
MC Order

---

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SPECIAL CONSIDERATIONS:

1. Reporting concern of abuse, neglect or exploitation
   a. Per Ohio Revised Codes (ORC) 2151.421 and 5101.61 EMS and Fire personnel are REQUIRED to report abuse, neglect or exploitation of adult (elderly) or child (under the age of 18)
   b. Report suspected child abuse, neglect or exploitation to Ohio’s Public Children Service Agencies for your respective county or free hotline at 855-642-4453
   c. Report suspected elderly abuse, neglect or exploitation to Ohio’s Adult Protective Services for your respective county or free hotline at 855-644-6277

2. If possible, have a witness the same gender as the victim present at all times

3. Wrap a plastic sheet around the victim if possible

4. DO NOT inspect genitals unless evidence of uncontrolled hemorrhage, trauma, or severe pain is present

5. DO NOT allow patient to shower or douche

6. Collect patient’s clothing when possible
   a. Place clothing in plastic sheet or separate plastic/paper bags with ID labels and found location
   b. Leave all sheets placed in plastic/paper bag with patient at facility
   c. Notify all staff of clothing samples
**TAB 5 GUIDELINE 18**

**VOMITING AND DIARRHEA**

### HISTORY
- Age < 16
- Time of last meal
- Last bowel movement/emesis
- Improvement or worsening with food or activity
- Duration of problem
- Other sick contacts
- Past medical history
- Medications
- Menstrual history (pregnancy)
- Travel history
- Bloody emesis / diarrhea

### SIGNS / SYMPTOMS
- Pain
- Character of pain
- Distention
- Constipation
- Diarrhea
- Anorexia
- Radiation

**Associated symptoms:** (Helpful to localize source)
- Fever, headache, blurred vision, weakness, malaise, cough, headache, dysuria, mental status changes, rash

### DIFFERENTIAL
- CNS
- Myocardial infarction
- Drugs (NSAID's, antibiotics, narcotics, chemotherapy)
- GI or renal disorders
- Diabetic ketoacidosis
- Gynecologic disease
- Infections (pneumonia, influenza)
- Electrolyte abnormalities
- Food or toxin induced
- Medication or substance abuse
- Pregnancy
- Psychological

**LEGEND**
- EMR
- EMT
- A-EMT
- EMT-P
- MC Order

---

10% Dextrose
5 – 10 mL / Kg IV / IO
Max 100 ml (10 grams)
q 3 – 5 minutes
- D10 not available then -
25% Dextrose (> 10 Kg)
2 – 4 mL / Kg IV / IO
Glucagon
(0.5 mg < 25 Kg) IN / IM
(1 mg > 25 Kg) IN / IM
(If no IV access)
Fluid Bolus
20 mL / Kg PRN
SBP < normal for age
Consider Hypotension
Guidelines

**Minimum Systolic BP by Age**
- < 1 mo: 60 mmHg
- 1 mo to 10 y: 70 + (2 x age in years)
- ≥ 10 y: 90 mmHg

Universal Patient Care
- Make NPO

IV / IO Access
- Glucose ≤ 60
  - Check Blood Glucose
- Glucose > 250
  - Fluid Bolus
    - 20 mL / Kg NS or LR

Symptomatic Hypotension
- Vomiting / Severe Nausea
- YES
  - Zofran 0.1 mg / Kg
    - IV / IO / IN / IM (max 4 mg)
- NO
  - Monitor and Reassess throughout transport

Contact Medical Control
- Transport to appropriate facility

---

**HISTORY**

**SIGNS / SYMPTOMS**

**DIFFERENTIAL**

**LEGEND**

---

NWO EMS ALS (SVIAS) – Tab 5 – Pediatric Medical Emergency Guidelines – Updated 2017_12_01
SPECIAL CONSIDERATIONS:

1. Complete assessment and physical exam including evaluation of mental status, skin, HEENT, neck, heart, lungs, abdomen, back, extremities and neuro.
2. Frequent re-assessments are needed to monitor vascular status.
3. For severe nausea and/or vomiting administer Zofran 0.1mg / Kg not to exceed 4 mg.
4. The following Dextrose concentrations and dosing are recommended:
   a. Pediatrics < 10 kg – Dextrose 10 % give 5 – 10 mL / Kg
   b. Pediatrics > 10 kg – Dextrose 25 % give 2 – 4 mL / Kg
TAB 5 GUIDELINE 19

CHILDREN WITH SPECIAL HEALTHCARE NEEDS

1. EMS providers are encouraged to know which children in a given area have special needs and to keep a logbook for potential problems related to these children.
   - This will allow for easier reference and treatment for the patient.

2. Parents and caretakers are usually trained in emergency management and can be of assistance to EMS personnel. Listen carefully to the caregiver and follow his / her guidance regarding the child’s treatment.

3. Treat the ABC’s first. Treat the child, not the equipment. If the emergency is due to an equipment malfunction, manage the child appropriately using your own equipment.

4. Children formerly cared for in hospitals or chronic care facilities are often cared for in homes by parents or other caretakers. These children may have self-limiting or chronic diseases.
   - There are multitudes of underlying medical conditions that may categorize children as having special needs.
   - Many are often unstable and may frequently involve the EMS system for evaluation, stabilization, and transport.
   - Special needs children include technology-assisted children such as those with tracheostomy tubes with or without assisted ventilation, children with gastrostomy tubes, and children with indwelling central lines. The most serious complications are related to tracheostomy problems.

5. Children with Special Healthcare Needs (CSHCN) have many allergies.
   - Children with spina bifida are often allergic to latex. Before treating a patient, ask the caregivers if the children are allergic to latex or have any other allergies. Stock latex-free equipment. (Some regularly used equipment that contains latex includes gloves, oxygen masks, IV tubing BVM, blood pressure cuff, IV catheters, etc.)

6. Children with chronic illnesses often have different physical development from well children.
   - Their baseline vital signs may differ from normal standards. Ask the caregiver if the child normally has abnormal vital signs. (i.e. a fast heart rate or a low pulse oximeter reading)
   - The size and developmental level may be different from age-based norms and length based tapes used to calculate drug dosages.

7. Some CSHCN may have sensory deficits (i.e. they may be hearing impaired or blind) yet may have age-appropriate cognitive abilities. Follow the caregivers’ lead in talking to and comforting a child during treatment and transport. Do not assume that a CSHCN is developmentally delayed.
8. When moving a special needs child, a slow careful transfer with two or more people is preferable. Do not try to straighten or unnecessarily manipulate contracted extremities as it may cause injury or pain to the child. Certain medical conditions will require special care. Again, consult the child’s caregiver.

9. Caregivers of CSHCN often carry “go bags” or diaper bags that contain supplies to use with the child’s medical technologies and additional equipment such as extra tracheostomy tubes, adapters for feeding tubes, suction catheters, etc. Before leaving the scene, ask the caregivers if they have a “go bag” and carry it with you.

10. Caregivers may also carry a brief medical information form or card. The child may be enrolled in a medical alert program whereby emergency personnel can get quick access to the child’s medical history. Ask the caregivers if they have an emergency information form or some other form of medical information for their child.

11. Caregivers of CSHCN often prefer that their child be transported to the hospital where the child is regularly followed or the “home” hospital. When making the decision as to where to transport a CSHCN, take into account: local protocols, the child’s condition, capabilities of the local hospital, caregivers’ request, ability to transport to certain locations.
# TAB 5 GUIDELINE 20
## PEDIATRIC PAIN CONTROL GUIDELINE

### HISTORY
- < 16 years of age
- Location
- Duration
- Severity (1-10)
- Past medical history
- Medications
- Drug allergies

### SIGNS / SYMPTOMS
- Severity (pain scale)
- Quality (sharp, dull, etc)
- Radiation
- Relation to movement, respiration
- Increased with palpation of area

### DIFFERENTIAL
- Per specific protocol
- Musculoskeletal
- Visceral (abdominal)
- cardiac
- Pleural / Respiratory
- Neurogenic
- Renal (colic)

### Universal Patient Care
- Patient care according to Guideline based on Specific Complaint

- Pain Severity ≥ 6 (FACES Scale)
- Indication for IV / IM / IN Medication

### Distraction Techniques

#### Ibuprofen
- 10 mg / Kg PO
- (Max 800 mg)

#### Tylenol
- 15 mg / Kg PO
- (Max 1000 mg)

### Minimum Systolic BP by Age
- < 1 mo: 60 mmHg
- 1 mo to 10 y: 70 + (2 × age in years)
- ≥ 10 y: 90 mmHg

### Contact Medical Control
- Transport to appropriate facility

---

### LEGEND
- EMR
- EMT
- A-EMT
- EMT-P
- MC Order

### Muscle Spasms Consider

#### Valium
- 0.2 mg/kg IV / IM
- (Maximum dose 0.6 mg/kg within 8 hours)
- -or-
- Alternative Benzodiazepine equivalent

### Itching

#### Diphenhydramine
- 1 mg / Kg IV / IO / IN / IM

### Nausea / Vomiting

#### Zofran
- 0.1 mg / Kg IV / IO
- (Maximum 4 mg)
SPECIAL CONSIDERATIONS:

1. This guideline will be utilized without MEDICAL CONTROL orders for pediatric patients under the age of 16 years for treatment of pain from isolated extremity fractures, dislocations, burns and treatment of cancer related pain. Appropriate documentation and signed releases are required for treat and release situations. PO medications with minimal oral fluids only if surgical / sedation procedures should be necessary for definitive care.

2. Guideline for safe use of analgesics:
   a. Be aware of the effects of combining drugs: Adding one CNS depressant or hemodynamic depressant to another can create unpredictable changes.
   b. Don’t forget about medication allergies: Adding IV analgesics on top of recently taken oral sedatives, analgesics or muscle relaxants may cause unpredictable additive effects as well.
   c. Know your pain management goal: Your goal may actually be different for different types of patients (Reduction of pain vs. removal of pain).
   d. Give a complete report to ED staff: Drugs given, time, results, and adverse effects.

3. Pain medications:
   a. Fentanyl 1 mcg / kg IV / IM (Max 50 mcg on first dose), may repeat 0.5 mcg / kg IV times one (1) additional dose after ten (10) minutes.
   b. Fentanyl 2 mcg / kg (Max 50 mcg on first dose) split between each nostril via Nasal-Mucosal Atomizer Device. May repeat in ten (10) minutes. If vitals are stable
   c. If fentanyl is not available:
      i. Morphine 0.1 mg / kg IV q 15 minutes prn pain. (Maximum 10 mg)
      ii. Hydromorphone (Dilaudid) 0.015 mg / kg IV / IM may repeat in ten (10) minutes PRN. (Maximum 1 mg)

4. Pain scores can be quantified with the
   a. Wong-Baker Faces Pain Scale
      i. Designed for children aged 3 years and older)

   b. FLACC Scale
i. Designed for children mild to severe cognitive impairment and in pre-verbal children including infants

ii. Gives a 0 – 10 based score

<table>
<thead>
<tr>
<th>CATEGORIES</th>
<th>SCORING</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
</tr>
<tr>
<td>FACE</td>
<td>No particular expression or smile</td>
</tr>
<tr>
<td>LEGS</td>
<td>Normal position or relaxed</td>
</tr>
<tr>
<td>ACTIVITY</td>
<td>Lying quietly, normal position, moves easily</td>
</tr>
<tr>
<td>CRY</td>
<td>No cry (awake or asleep)</td>
</tr>
<tr>
<td>CONSOLABILITY</td>
<td>Content, relaxed</td>
</tr>
</tbody>
</table>

5. Oral ibuprofen or Ketoralac (Toradol) should be avoided in any patient with an acute fracture