



# **CENTRAL EAST**

**PREHOSPITAL CARE PROGRAM**

# **5.4**

**CLINICAL POCKETBOOK**



Page 6

As always, this guide is intended to support the ALS PCS and is for reference only. Refer to the current Medical Directives for all treatment decisions. If there are inconsistencies between this reference guide and the current directives always refer to the Medical Directives.

For questions, comments, or suggestions for improvements, please contact us at:

**Website** (follow 'contact us' link):

[www.cepcp.ca](http://www.cepcp.ca)

**Administration Office**

1690 Dersan St. 4<sup>th</sup> floor  
Pickering, Ontario  
L1V2P8

**Mailing Address**

Central East Prehospital Care Program  
Lakeridge Health  
1 Hospital Court  
Oshawa, ON L1G 2B9

**Phone:** 905-433-4370

**Fax:** 905-721-4734

**Toll Free:** 1-866-423-8820

# How to Use This Pocketbook (Digital Edition)

Welcome to the **Primary Care Paramedic Pocketbook (2025 Edition)**. This resource was designed with input from active paramedics, and instructional designers to help you make fast, safe, and confident clinical decisions in the field. This guide is optimized for rapid access and clarity.

## Purpose

This digital reference supports **clinical decision-making, dosing accuracy, and provincial compliance** with the ALS PCS and local CEPCP directives. It is not a substitute for medical judgment or the original medical directives.

## Human Factors-Informed Design

This pocketbook follows best practices from **human factors engineering, cognitive ergonomics**, and **clinical usability**, including:

- Alphabetical ordering for fast search
- Chunked information to align with working memory limits (5–7 items per section)
- Critical information presented first (e.g., Indications → Clinical Parameters → Contraindications → Doses)

## How to Use This Pocketbook

This pocketbook is designed for rapid, intuitive use in dynamic clinical environments. To enhance findability and reduce cognitive load, content is organized into **clearly labeled sections based on clinical presentation or treatment need**. The following **categories are listed in alphabetical order**:

- **Adrenal**
- **Airway and Allergy**

- **Analgesia**
- **Cardiac Arrest and ROSC**
- **Cardiogenic**
- **Childbirth**
- **Intravenous (IV)**
- **Hypoglycemia, Opioid, Seizure**
- **Nausea and Vomiting**
- **CBRNE**
- **Special Events**

Within each category, **Medical Directives are also listed alphabetically**, ensuring you can quickly locate the relevant directives, medications, and procedures. This layout supports both novice and experienced providers by simplifying access to critical information during high-stress situations.

Whether you're referencing the digital version or a printed copy, this structure helps streamline decision-making and reduce delays in care.

### **Online Use Tips**

This pocketbook is best used in a **PDF reader with clickable links**. You can:

- Use **Ctrl+F** or **Command+F** to find any directive by keyword (e.g., “hypoglycemia”)
- Click links in the **Table of Contents** to jump directly to the section
- Use bookmarks or collapsible headings to navigate long sections
- View on a **tablet in portrait mode** for optimal one-hand use

### **Quick Reference Layout**

Each directive follows a standardized structure:

1. Indications
2. Clinical Parameters
3. Contraindications
4. Medication / Procedure

5. Dosing (Adult and Pediatric)
6. Patch Requirements
7. Clinical Notes or Decision Tips

### **Safety Enhancements**

- High-risk medications clearly labeled (e.g., Ketamine, Dopamine)
- Treat-and-Discharge directives include decision checklists
- Patch Failure protocols and documentation reminders included
- Pediatric dosing tables are weight-based and include simplified charts
- We've tried to separate directives using **bookmarks**, **dividers**, and by ensuring most **tables fit on a single page**. At times, this is not always feasible, but efforts were made to prioritize readability and navigation

### **Feedback & Versioning**

We welcome suggestions or improvements. Please contact:

**Email:** [cepcp@cepcp.ca](mailto:cepcp@cepcp.ca)

**Website:** [www.cepcp.ca/contact](http://www.cepcp.ca/contact).

This version is **5.4 – Updated for 2025**. Always refer to the most current version posted online or distributed by CEPCP.

[Click Here For The Clinical Notes](#)

# Adrenal Issues

# Suspected Adrenal Crisis

## Indications

Patient with primary adrenal failure who has signs of an adrenal crisis

## Clinical Parameters

Paramedics are presented with a vial of Hydrocortisone for the identified patient **AND** no allergy or sensitivity to Hydrocortisone **AND** any of the following:

- Age-related hypoglycemia, or
- GI symptoms (vomiting, diarrhea, abdominal pain), or
- Syncope, or
- Temperature  $\geq 38^{\circ}\text{C}$  or suspected / hx of fever, or
- Altered LOA, or
- Age related hypotension, or
- Age related tachycardia

## All Doses

Medication	Initial Dose	Q	Repeat	Max doses
<b>Hydrocortisone</b> IM / IV / CVAD	2 mg/kg Max 100 mg	N/A	N/A	1 dose



## Notes:

### To use the ACT-O-VIAL®:

1. Press down on plastic top to force diluent into the lower compartment
2. Gently agitate to effect solution
3. Remove plastic tab covering center of stopper
4. Sterilize top of stopper with alcohol
5. Insert needle through center of stopper and withdraw the appropriate dose / volume

## Spot for your notes

# Airway and Allergy

# Bronchoconstriction

## Indications

Respiratory distress **AND** Suspected bronchoconstriction

## Clinical Parameters

No allergy or sensitivity to any medication considered

### Dexamethasone

- Not currently on PO or parenteral steroids
- Patient has history of asthma **OR** COPD **OR** 20 pack-year history of smoking

### EPINEPHrine (High-Risk Medication)

- BVM ventilation is required
- Must have a history of asthma

### Salbutamol

- N/A

## All doses

Medication	Weight	Initial Dose	Q	Repeat	Max doses
Salbutamol MDI	< 25 kg	600 mcg	5-15 mins	600 mcg	3 doses
Salbutamol NEB	< 25 kg	2.5 mg	5-15 mins	2.5 mg	3 doses
Salbutamol MDI	≥ 25 kg	800 mcg	5-15 mins	800 mcg	3 doses
Salbutamol NEB	≥ 25 kg	5 mg	5-15 mins	5 mg	3 doses

**All doses**

Medication	Initial Dose	Maximum Single Dose	Q	Repeat	Max doses
<b>EPINEPHrine</b> 1:1000 IM	0.01 mg/kg	0.5 mg	N/A	N/A	1 dose

\*EPINEPHrine may be rounded to the nearest 0.05 mg

**All doses**

Medication	Initial Dose	Maximum Single Dose	Q	Repeat	Max doses
<b>Dexamethasone</b> PO / IM / IV <b>PO is the preferred route</b> <b>IM/IV routes should be reserved for patients that cannot tolerate PO.</b>	0.5 mg/kg	8 mg	N/A	N/A	1 dose

## Dexamethasone Dosing Chart

**Dose 0.5mg/kg - Max 8mg – Max # of Doses 1**

**Route PO/IM/IV**

**Patients ≥16kg receive the Max Dose**

<b>KG</b>	<b>Dose</b>	<b>Concentration 10mg/ml Volume</b>	<b>Concentration 100mg/10ml Volume</b>
1	0.5mg	0.5ml	0.05ml
2	1.0mg	1.0ml	0.1ml
3	1.5mg	1.5ml	0.15ml
4	2.0mg	2.0ml	0.2ml
5	2.5mg	2.5ml	0.25ml
6	3.0mg	3.0ml	0.3ml
7	3.5mg	3.5ml	0.35ml
8	4.0mg	4.0ml	0.4ml
9	4.5mg	4.5ml	0.45ml
10	5.0mg	5.0ml	0.5ml
11	5.5mg	5.5ml	0.55ml
12	6.0mg	6.0ml	0.6ml
13	6.5mg	6.5ml	0.65ml
14	7.0mg	7.0ml	0.7ml
15	7.5mg	7.5ml	0.75ml
≥16	8.0mg	8.0ml	0.8ml



**NOTES: Proper assembly of the BVM and the MDI aerosol chamber. The MDI must be in an upright position to be administered correctly.**

**Spot for your notes**

# Continuous Positive Airway Pressure (CPAP)-Auxiliary

## Indications

Severe respiratory distress **AND**  
Signs and/or symptoms of acute pulmonary edema (of any origin) **OR**  
COPD exacerbation

## Clinical Parameters

- Able to sit upright and cooperate
- Respiratory rate  $\geq 28$  breaths/minutes
- $\text{SpO}_2 < 90\%$  OR accessory muscle use
- $\text{SBP} \geq 100$
- Not asthma exacerbation
- Stable or protected airway
- Not suspected pneumothorax
- No major trauma or burns to the head or torso
- No tracheostomy

### Adult Doses ( $\geq 18$ years of age)

Initial setting	Titration increment	Titration interval	Max setting
5 cm H <sub>2</sub> O	2.5 cm H <sub>2</sub> O	5 min	15 cm H <sub>2</sub> O

If the device has adjustable FiO<sub>2</sub>, start at the lower setting and only increase if SpO<sub>2</sub> remains < 92% despite treatment and / or CPAP pressure of 10 cmH<sub>2</sub>O

- 8l/min=5 cmH<sub>2</sub>O
- 10l/min=8 cmH<sub>2</sub>O (accepted titration for the CPAP model)
- 12l/min=10 cmH<sub>2</sub>O
- 15lmin= 15 cmH<sub>2</sub>O

### Spot for your notes



# Croup

## Indications

Current history of upper respiratory tract infection **AND**  
Barking cough or recent history of barking cough

## Clinical Parameters

≥ 6 months to < 8 years old

No allergy or sensitivity to medications being considered

### EPINEPHrine (High-Risk Medication)

- Patient **must have stridor** at rest
- No allergy or sensitivity to EPINEPHrine
- Heart rate less than 200 beats per minute

### Dexamethasone

- Unaltered LOA
- Can be administered for mild, moderate, and severe croup
- No steroids received within the last 48 hours
- Able to tolerate oral medications

## Pediatric doses

Medication	Weight	Initial Dose	Max Single Dose	Repeat	Max
EPINEPHrine [1 mg/ml] NEB	< 10 kg	2.5 mg (2.5 ml)	2.5 mg	N/A	1 dose
EPINEPHrine [1 mg/ml] NEB	≥ 10 kg	5 mg (5 ml)	5 mg	N/A	1 dose
Dexamethasone PO	N/A	0.5 mg/kg	8 mg	N/A	1 dose

# Advanced Airway and Tracheostomy Suctioning and Reinsertion

## Indications

Patient with an endotracheal, SGA (with gastric suction port) or tracheostomy tube

**AND** The airway is obstructed or increased secretions are present

## Clinical Parameters

### Emergency Tracheostomy Reinsertion

- Patient with an existing tracheostomy where the inner and/or outer cannula(s) have been removed from the airway **AND**
- Respiratory distress **AND**
- Inability to adequately ventilate **AND**
- Paramedics are presented with a tracheostomy cannula for the identified patient
- Must be able to properly landmark or visualize

### Suctioning through SGA Gastric Port (if available)

- Known or suspected gastric secretions or emesis following placement of SGA
- Persistent difficult ventilation despite other efforts to improve ventilation

Consider Suctioning (ETT/Tracheostomy)					
Patient	Initial Suction pressure	Max single dose	Q	Repeat	Max doses
<b>Infant</b> < 1 year	60 – 100 mmHg	10 seconds	1 min	Same as initial	N/A
<b>Child</b> ≥ 1 year to < 12 years	100 – 120 mmHg	10 seconds	1 min	Same as initial	N/A
<b>Adult</b> ≥ 12 years	100 – 150 mmHg	10 seconds	1 min	Same as initial	N/A

Suctioning through SGA Gastric Port					
Patient	Initial Suction pressure	Max single dose	Q	Repeat	Max doses
<b>Infant</b> < 1 year	60 – 100 mmHg	Until fluid disappears or after 15 seconds of no fluid return	N/A	Same as initial	N/A
<b>Child</b> ≥ 1 year to < 12 years	100 – 120 mmHg	Until fluid disappears or after 15 seconds of no fluid return	N/A	Same as initial	N/A
<b>Adult</b> ≥ 12 years	100 – 150 mmHg	Until fluid disappears or after 15 seconds of no fluid return	N/A	Same as initial	N/A

I-Gel size	Suction Catheter Size
1	N/A
1.5	10
2	12
2.5	12
3	12
4	12
5	14

# Endotracheal and Tracheostomy Suctioning

## Indications

Patient with an ETT or trach tube **AND**  
The airway is obstructed, or increased secretions are present

## Clinical Parameters

### Emergency Tracheostomy Reinsertion

- Patient with an existing tracheostomy where the inner and/or outer cannula(s) have been removed from the airway **AND**
- Respiratory distress **AND**
- Inability to adequately ventilate **AND**
- Paramedics are presented with a tracheostomy cannula for the identified patient.
- Paramedics must have the ability to landmark or visualize

## Suction

Patient	Initial Suction Pressure	Q	Repeat	Max doses
Infant	60 – 100 mmHg	1 min	Same as initial	N/A
Child	100 – 120 mmHg	1 min	Same as initial	N/A
Adult	100 – 150 mmHg	1 min	Same as initial	N/A

# Moderate to Severe Allergic Reaction

## Indications

Exposure to a probable allergen **AND**  
Signs and/or symptoms of a moderate to severe allergic reaction  
(including anaphylaxis)

## Clinical Parameters

No allergy or sensitivity to any medication  
Consider EPINEPHrine use for  
anaphylaxis

### DiphenhydrAMINE

- Weight must be  $\geq 25$  kg

## Adult Doses

Medication	Initial Dose	Q	Repeat	Max doses
<b>EPINEPHrine [1 mg/ml]</b> <b>IM ONLY***</b>	0.01 mg/kg Max 0.5 mg (0.5ml)	Min 5 min	same as initial	2 doses
<b>DiphenhydrAMINE</b> IV / IM	50 mg if $\geq 50$ kg 25 mg if 25-49 kg	N/A	N/A	1 dose

## Pediatric Doses

Medication	Initial Dose	Q	Repeat	Max doses
<b>EPINEPHrine [1 mg/ml]</b> <b>IM ONLY ***</b>	0.01 mg/kg Max 0.5 mg	Min 5 min	same as initial	2 doses
<b>DiphenhydrAMINE</b> IV / IM	25 mg if 25-49 kg	N/A	N/A	1 dose

## Spot for your notes

**EPINEPHrine Dosing Chart-IM only\*\*\*\***

<b>Weight (kg)</b>	<b>Dose (mg)</b>	<b>Volume (mL) to Administer that is rounded</b>
<b>4</b>	0.04	0.05
<b>6</b>	0.06	0.05
<b>8</b>	0.08	0.10
<b>10</b>	0.10	0.10
<b>12</b>	0.12	0.10
<b>14</b>	0.14	0.15
<b>16</b>	0.16	0.15
<b>18</b>	0.18	0.20
<b>20</b>	0.20	0.20
<b>22</b>	0.22	0.20
<b>24</b>	0.24	0.25
<b>26</b>	0.26	0.25
<b>28</b>	0.28	0.30
<b>30</b>	0.30	0.30
<b>32</b>	0.32	0.30
<b>34</b>	0.34	0.35
<b>36</b>	0.36	0.35
<b>38</b>	0.38	0.40
<b>40</b>	0.40	0.40
<b>42</b>	0.42	0.40
<b>44</b>	0.44	0.45
<b>46</b>	0.46	0.45
<b>48</b>	0.48	0.50
<b>50</b>	0.50	0.50



# Supraglottic Airway

## Indications

Need for ventilatory assistance **OR** airway control **AND**  
Other airway management is ineffective

## Clinical Parameters

- Absent gag reflex
- No airway obstruction by foreign object
- No known esophageal disease (i.e., varices)
- No trauma to the oropharynx
- No caustic ingestion

Confirmation Methods	Primary	Secondary
Confirm advanced airway placement	ETCO <sub>2</sub> (waveform capnography) <b>must</b> be used if available.	<ul style="list-style-type: none"><li>• ETCO<sub>2</sub> (non-waveform capnography)</li><li>• Auscultation</li><li>• Chest rise</li></ul>

**Maximum 2 attempts.**

### King LT Reference

Size	Colour	Patient	Amount of air in Cuff
0	Clear	< 5 kg	10 ml
1	White	5 – 12 kg	20 ml
2	Green	12 – 25 kg	25 – 35 ml
2.5	Orange	25 – 35 kg	30 – 40 ml
3	Yellow	4 – 5 ft tall	45 – 60 ml
4	Red	5 – 6 ft tall	60 – 80 ml
5	Purple	≥ 6 ft tall	70 – 90 ml

### iGel Reference

Size	Colour	Patient
1	Pink	< 5 kg
1.5	Blue	5 – 12 kg
2	Grey	12 – 25 kg
2.5	White	25 – 35 kg
3	Yellow	30 – 60 kg
4	Green	60 – 90 kg
5	Orange	90 + kg

# Analgesia

## Indications

Pain

Medication	Clinical Parameters	Contraindications
Acetaminophen	<ul style="list-style-type: none"><li>• <math>\geq 12</math> years old</li><li>• Unaltered</li></ul>	<ul style="list-style-type: none"><li>• Acetaminophen use within previous 4 hours</li><li>• Allergy or sensitivity to acetaminophen</li><li>• Active vomiting</li><li>• Hx of liver disease</li><li>• Suspected ischemic chest pain</li><li>• Unable to tolerate oral medication</li></ul>
Ibuprofen	<ul style="list-style-type: none"><li>• <math>\geq 12</math> years old</li><li>• Unaltered</li></ul>	<ul style="list-style-type: none"><li>• NSAID use within previous 6 hours</li><li>• Allergy or sensitivity to ASA or NSAIDs</li><li>• Current active bleeding</li><li>• Patient on anticoagulation therapy (not anti-platelet therapy)</li><li>• Hx of peptic ulcer disease or GI bleed</li><li>• If asthmatic, no prior use of ASA or other NSAIDs</li><li>• Active vomiting</li><li>• Known renal impairment</li><li>• CVA or TBI in the previous 24 hours</li></ul>

		<ul style="list-style-type: none"> <li>• Unable to tolerate oral medication</li> <li>• Suspected Ischemic chest pain</li> <li>• Pregnant</li> </ul>
<b>Ketorolac</b>	<ul style="list-style-type: none"> <li>• <b>≥ 12 years old</b> <ul style="list-style-type: none"> <li>• Unaltered</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• NSAID use within previous 6 hours</li> <li>• Current active bleeding</li> <li>• Allergy or sensitivity to ASA or NSAIDs</li> <li>• Patient on anticoagulation therapy (not anti-platelet therapy)</li> <li>• If asthmatic, no prior use of ASA or other NSAIDs</li> <li>• Hx of peptic ulcer disease or GI bleed</li> <li>• Known renal impairment</li> <li>• Suspected ischemic chest pain</li> <li>• Pregnant</li> <li>• CVA or TBI in the previous 24 hours</li> </ul>

## Adult Doses

Medication	Age	Initial Dose	Max Single Dose	Q	Max Cumulative Dose	Max Doses
Acetaminophen PO	≥ 18	960-1000 mg	1000 mg	N/A	N/A	1
Ibuprofen PO	≥ 12	400 mg	400 mg	N/A	N/A	1
Ketorolac IM / IV	≥ 12	10-15 mg	15 mg	N/A	N/A	1

# Cardiogenic

# Acute Cardiogenic Pulmonary Edema

## Indications

Moderate to severe respiratory distress **AND** Suspected acute cardiogenic pulmonary edema

## Clinical Parameters

- No allergy or sensitivity
- No \*phosphodiesterase inhibitors in the past 48 hours
- If SBP < 140 mmHg patient must have prior Nitroglycerin use or an IV established

## Vital Sign Parameters

- HR 60 – 159 bpm
- SBP ≥ 100 mmHg
- SBP drops no more than 1/3 of the initial reading

## Adult Doses (≥ 18 years of age)

Medication	Initial Dose	Q	Repeat	Max
<b>Nitroglycerin SL</b> SBP 100 – 139 mmHg WITH an IV or History of use	0.4 mg	5 min	0.4 mg	6 doses
<b>Nitroglycerin SL</b> SBP ≥ 140 mmHg and <b>NO</b> History or IV	0.4 mg	5 min	0.4 mg	6 doses
<b>Nitroglycerin SL</b> SBP ≥ 140 mmHg <b>WITH</b> History or IV	0.8 mg	5 min	0.8 mg	6 doses



# Cardiac Ischemia

## Indications

Suspected cardiac ischemia

## Clinical Parameters

### Nitroglycerin:

- Prior Nitroglycerin use and/or IV established
- HR 60 – 159 beats per minute
- SBP  $\geq$  100 mmHg; Discontinue if SBP drops more than 1/3 of the initial reading
- No \*phosphodiesterase inhibitor use in past 48 hours
- No right ventricular MI (no ST elevation in V4R in the setting of ST elevation in II, III and aVF).

### ASA Indications:

- Unaltered LOA
- Age  $\geq$  18 years old
- Able to chew and Swallow

### ASA Contraindications:

- No prior use of ASA if asthmatic
- No allergy to ASA or NSAIDs
- No current, active bleeding
- No CVA or TBI in past 24 hrs

## Adult Doses ( $\geq 18$ years of age)

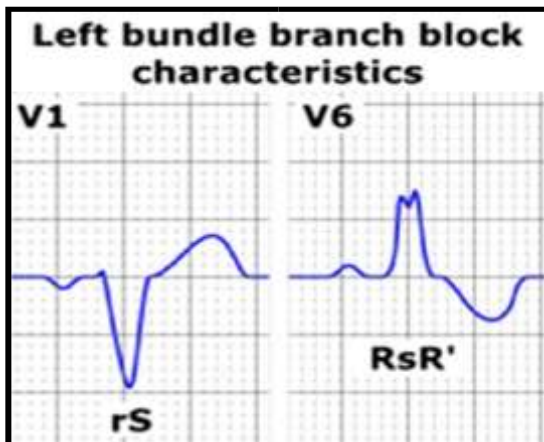
Medication	Initial Dose	Q	Repeat	Max dose
<b>Nitroglycerin SL</b> <b>(Non-STEMI)</b>	0.4 mg	5 min	0.4 mg	<b>6 doses</b>
<b>Nitroglycerin SL</b> <b>(STEMI)</b>	0.4 mg	5 min	0.4 mg	<b>3 doses</b>
<b>ASA PO</b>	160 - 162 mg	N/A	N/A	160 - 162 mg

## Common Imitators of AMI

Interpreting ST segment elevation is not possible in the following rhythms (not a complete list – other imitators exist)

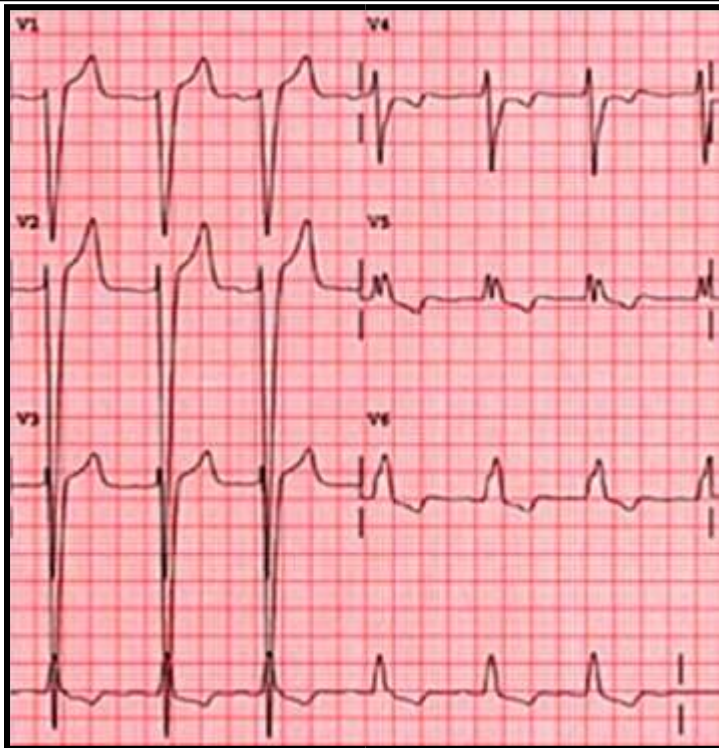
### LBBB

- Characterized by a supraventricular rhythm (identified by the presence of P waves and a 1:1 occurrence with QRS waves) & a wide ( $> 120$  ms) QRS complex.
- A LBBB will have a -ve terminal deflection in V1 and typically a secondary R wave in V6 (seen as a notched complex seen as RsR' below). A STEMI cannot be determined in the field in the presence of a LBBB.
- A RBBB will have a +ve terminal deflection in V1 typically with a notched complex & a slurred or prolonged S wave in V6. A RBBB does not preclude the ability to interpret a STEMI in the field.



### **Ventricular Paced Rhythm**

- A pacer spike is typically seen immediately preceding the QRS complex which will be wide.
- Pacer detect may need to be activated on the cardiac monitor
- Electrical capture is the presence of a QRS following the pacer spike.
- Mechanical capture is the presence of a pulse matching the electrical rate of the paced rhythm.



### **LVH (Left Ventricular Hypertrophy)**

Look at the RS complex in either V1 or V2 and count the small boxes of the -ve deflection

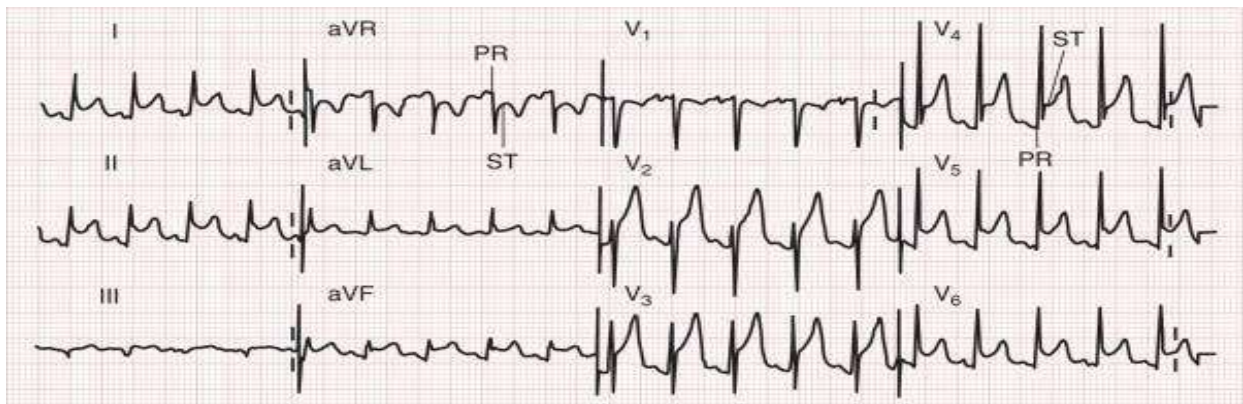
Then do the same with either V5 or V6, counting the small boxes of the +ve deflection

Add the two numbers together, if they equal 35 mm's or greater, it is likely LVH.

A STEMI cannot be determined in the field in the presence of LVH

### **Pericarditis**

- A condition in which inflammation of the pericardial sac produces electrical abnormalities in the 12 lead ECG
- Men aged 20 – 50 years of age are most susceptible
- Often produces “global” ST elevation, or elevation in leads that are not anatomically contiguous and that is not consistent with the patient's clinical presentation
- A STEMI cannot be determined in the field in the presence of pericarditis



**Space for Notes:**

--

# Cardiogenic Shock

## Indications

STEMI positive 12-lead **AND**  
Cardiogenic Shock

## Clinical Parameters

SBP < 90 mmHg

### Bolus:

- No fluid overload-acute cardiogenic pulmonary edema

## Adult Doses (≥ 18 years of age)

Medication	Initial Dose	Q	Repeat	Max
<b>Bolus</b> IV /	10 ml/kg	Reassess every 250 ml	N/A	1,000 ml

# Tachydysrhythmia

## Indications

Symptomatic tachydysrhythmia

## Clinical Parameters

No allergy or sensitivity to any medication considered

### Valsalva

- SBP  $\geq$  100 mmHg
- Unaltered LOA
- Use for regular narrow complex tachycardia  $\geq$  150 bpm
- Not for sinus tachycardia, A-fib, or A-flutter

## Adult Doses ( $\geq$ 18 years of age)

Procedure	Initial Dose	Duration	Max dose
Valsalva (REVERT)	1 attempt	60 Seconds	2 attempts

# Tachydysrhythmia Treat and Discharge – IF AUTHORIZED

## Indications

An ACP may **treat and discharge** a patient experiencing a tachydysrhythmia under these criteria

**AND**

if authorized to use this Medical Directive

## Considerations for Treat and Discharge

The patient must meet all of the following criteria:

- ❑ The patient is  $\geq 18$  AND  $< 65$  years old,
- ❑ Patient must have a prior history of SVT,
- ❑ The patient presented with narrow complex and regular rhythm Supraventricular Tachycardia (SVT),
- ❑ The patient must have only had a single SVT episode in the past 24 hours,
- ❑ The patient has returned to normal sinus rhythm (NSR) either spontaneously, with a valsalva maneuver or with Adenosine treatment by paramedics and is now asymptomatic,
- ❑ The patient has returned to their normal level of consciousness,
- ❑ A complete set of vital signs are within expected normal ranges with a HR  $< 100$  bpm and the patient remains in NSR for at least 15 minutes post conversion,

**AND.....(continued on next page)**

## Considerations for Treat and Discharge

### AND....

- The patient was not treated with electrical cardioversion by paramedics,
- The patient is not pregnant,
- The SVT must not be related to alcohol or substance abuse or withdrawal,
- The patient has no fever or preceding illness,

In addition to the above criteria, **if all of the following** requirements have been met, the patient can be discharged by Paramedics:

- A responsible adult agrees to remain with the patient for the next 4 hours,
- All of the patient or substitute decision makers questions were answered and a care plan was developed,
- The patient or substitute decision maker has been advised to follow up with their primary health care team or provider.
- Clear instructions to call 911 were provided should symptoms redevelop,
- Patient or substitute decision maker has the ability to access 911 should symptoms redevelop,
- Patient or substitute decision maker consents to the discharge.

Patch to BHP for consultation if you are unclear if the patient meets all of the discharge criteria.



# Cardiac Arrest and ROSC

# Medical Cardiac Arrest

## Indications

Non-traumatic cardiac arrest.

In the following settings, consider very early transport after a minimum of one analysis (and defibrillation if indicated) once an egress plan is organized:

- 1) pregnancy presumed to be  $\geq 20$  weeks gestation (fundus at or above umbilicus, ensure manual displacement of uterus to left);
- 2) known reversible cause of the arrest unable to be addressed.

### **For patients in refractory VF or pulseless VT, consider:**

Double sequential external defibrillation (DSED) if authorized, **OR** Vector change defibrillation (VCD) if DSED is unavailable or not authorized, **AND** Transport following three (3) doses of DSED or VCD **AND** three (3) rounds of epinephrine if they remain in VF or pulseless VT (or after 3rd consecutive defibrillation if no IV/IO/CVAD/ETT access).

Refractory VF or pulseless VT is defined for the purpose of this directive, as persistent VF or pulseless VT after 3 consecutive shocks.

## Clinical Parameters

### **CPR**

- Altered LOA
- Performed in two-minute intervals
- Not obviously dead
- Does not meet the conditions of the DNR Standard

### **Manual Defibrillation**

- $\geq 24$  hours old **AND** Altered LOA
- VF OR pulseless VT

### **DSED or Vector Change**

- $\geq 18$  years old
- Altered LOA
- Non-traumatic VF/pulseless VT of presumed cardiac origin
- Three consecutive standard shocks

*If anaphylaxis suspected as the causative event:*

### **EPINEPHrine [1mg/ml] IM (High-Risk Medication)**

- $\geq 24$  hours old **AND** Altered LOA
- No allergy or sensitivity to Epinephrine

### **Medical TOR**

- Mandatory Patch to the BHP for authorization to apply the Medical TOR if applicable
- $\geq 16$  years old **AND** Altered LOA
- Arrest not witnessed by paramedic **AND** no ROSC after 20 minutes of resuscitation **AND** no defibrillation delivered

### **TOR is contraindicated if:**

- Pregnancy presumed to be  $\geq 20$  weeks gestation
- Suspected hypothermia
- Airway obstruction
- Non-opioid drug overdose/toxicology

### Adult Dosing (≥8 years of age)

<ul style="list-style-type: none"> <li>Interpret, print and code mark/snapshot the rhythm every 2 minute.</li> <li>For Zoll and LP15 provide energy as per RBHP/manufacturer.</li> </ul>				
CPR	As per current HSF of Canada Guidelines			
Treatment	Dose	Repeats	Q	Max doses
Manual defib	LP15 360J Zoll X 200J	LP15 360J  Zoll X 200J	2 min	N/A
<b>DSED or VC</b> <b>MUST BE ≥ 18</b>	LP15 360J Zoll X 200J	LP15 360J  Zoll X 200J	2 min	N/A

### Adult doses (greater than or equal to 12 years old)

Medication	Initial Dose	Q	Min	Max Dose
<b>EPINEPHrine 1:1,000</b> <b>(0.1mg/ml) – IM</b> (for suspected anaphylaxis)	0.01 mg/kg max 0.5 mg (0.5ml)	N/A	N/A	1 dose

### Medical TOR: (≥ 16 years of age)

#### **Mandatory Provincial Patch Point:**

Patch early to consider TOR if there are extenuating circumstances or where the paramedic considers ongoing resuscitation to be futile. If the patch fails, and/or, no ROSC after 20 minutes of resuscitation, initiate transport.

## Pediatric Joule settings

DOSING: ≥ 24 HOURS <input type="checkbox"/> LESS THAN 12 YEARS OF AGE		
Weight	Age	Joules 2J/kg / 4J/kg
4 kg/9 lb	< 1 year	8 J / 16 J
6 kg/13lb	< 1 year	12J /24 J
8 kg/18lb	< 1 year	16 J / 32 J
10kg/22lb	< 1 year	20 J / 40 J
12kg/26lb	1	24 J / 48 J
14kg/31lb	2	28 J / 56 J
16kg/35lb	3	32 J / 64 J
18kg/40lb	4	36 J / 72J
20kg/44lb	5	40 J / 80 J
22kg/48lb	6	44 J / 88J
24kg/53lb	7	48 J /96J
26kg/57lb	8	200J Zoll 360 LP15
28kg/62lb	9	200J Zoll 360 LP15
30kg/66lb	10	200J Zoll 360 LP15
35kg/77lb	11	

(Courtesy of Mitch Lohnert)

# Newborn Resuscitation (< 24 hours)

## Indications

Newborn patient (< 24 hours)

## Clinical Parameters

Do not attempt resuscitate if patient is obviously dead as per BLS PCS

Do not attempt resuscitate if presumed age is less than 20 weeks

(consider calling the BHP for guidance)

< 24 hours of age

### Positive Pressure Ventilation

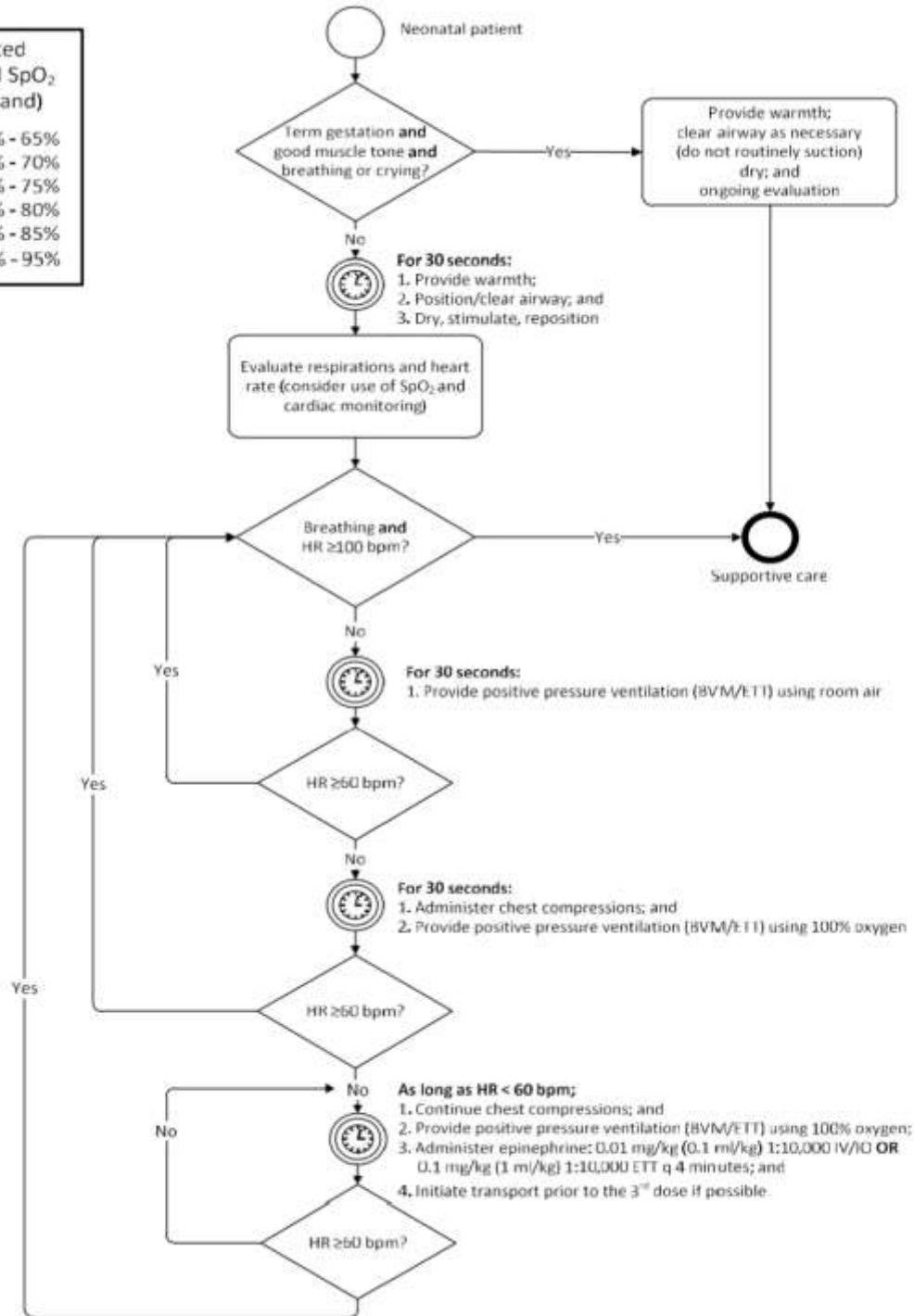
- HR < 100

### CPR

- HR < 60
- After 30 seconds of PPV with room air

## A Spot for your Notes:

Targeted Preductal SpO <sub>2</sub> (Right Hand)	
1 min	60% - 65%
2 min	65% - 70%
3 min	70% - 75%
4 min	75% - 80%
5 min	80% - 85%
10 min	85% - 95%



Category	Pre-term (<37 weeks)	Term (37-42 weeks)
Skin	Thin, translucent, veins visible	Opaque, some vernix present
Feet	Smooth soles, few creases	Full creases covering the soles
Ears	Pliable, slow recoil	Firm, immediate recoil
Muscle Tone	Floppy, extended posture	Flexed limbs, active movements

Weeks	Skin	Feet	Muscle Tone	Appearance	Weight
14 weeks	Extremely thin, translucent, veins prominent	No creases, feet very small	Minimal tone, limbs floppy	Eyes fused, limbs very thin, delicate structure, abdomen flat and undeveloped	Approximately 100 grams
20 weeks	<b>Thin, translucent, veins visible</b>	<b>No creases on soles</b>	<b>Minimal tone, floppy limbs</b>	<b>Eyes fused, limbs thin and elongated, visible veins, abdomen slightly rounded</b>	<b>Approximately 300 grams</b>
24 weeks	Veins visible, skin becoming slightly thicker	Few creases on soles	Some tone, intermittent movements	Eyes partially open, thin limbs, some subcutaneous fat, abdomen more rounded	Approximately 600 grams
28 weeks	Thicker skin, translucency reducing	Creases covering part of sole	Increased tone, occasional flexion	Eyes open, more rounded limbs, subcutaneous fat increasing, abdomen fuller	Approximately 1 kg
32 weeks	Mostly opaque, less visible veins	Moderate creases over sole	Flexed limbs, more frequent movements	Well-defined limbs, eyes fully open, plumper appearance, abdomen prominent and rounded	Approximately 1.8 kg
36 weeks	Opaque, some vernix present	Full creases across the sole	Good tone, active movements	Rounded limbs, less wrinkled skin, vernix and lanugo, abdomen firm and rounded	Approximately 2.5 kg
40 weeks (Term)	Fully opaque, possible peeling or vernix	Full creases, well-defined	Strong tone, active and flexed	Well-developed, rounded limbs, little or no lanugo, abdomen firm and well-defined	Approximately 3-4 kg



### **iGel Reference**

<b>Size</b>	<b>Colour</b>	<b>Patient</b>
1	Pink	< 5 kg

### **King LT Reference**

<b>Size</b>	<b>Colour</b>	<b>Patient</b>
0	Clear	< 5 kg

Inflate cuff with a maximum of 10 ml air.

Gestational Age (weeks)	Estimated Weight (kg)
20	1.4
21	1.5
22	1.6
23	1.7
24	1.8
25	1.9
26	2.0
27	2.1
28	2.2
29	2.3
30	2.4
31	2.5
32	2.6
33	2.7
34	2.8
35	2.9
36	3.0
37	3.1
38	3.2
39	3.3
40	3.4

# Return of Spontaneous Circulation (ROSC)

## Indications

ROSC after resuscitation was initiated

## Clinical Parameters

- Adult hypotensive
- Pediatric SBP < 70 mmHg + (2 x age in years)

### Bolus:

- No fluid overload-cardiogenic pulmonary edema
- Fluid administration during the cardiac arrest does not count towards fluid administered in the ROSC setting.

## Adult Doses

Medication	Initial Dose	Q	Titration	Max dose
<b>Bolus</b> IV (Macodrip set)	10 ml/kg	Reassess every 250 ml	N/A	1,000 ml

## Pediatric Doses (>=2 years old and less than 12 years old)

Medication	Initial Dose	Q	Titration	Max dose
<b>Bolus</b> IV / (Microdrip set)	10 ml/kg	Reassess every 100 ml	N/A	1,000 ml

Patient Weight (kg)	Fluid Bolus Volume (mL)
12	120
13	130
14	140
15	150
16	160
17	170
18	180
19	190
20	200
21	210
22	220
23	230
24	240
25	250
26	260
27	270
28	280
29	290
30	300
31	310
32	320
40	400
50	500
60	600
70	700
80	800
90	900
100	1000

# Trauma Cardiac Arrest

## Indications

Cardiac arrest secondary to severe blunt or penetrating trauma

## Clinical Parameters

### CPR

- Altered LOA
- Performed in two-minute intervals
- Not obviously dead
- Does not meet the conditions of the DNR Standard

### Manual Defibrillation

- $\geq 24$  hours old **AND** Altered LOA
- VF **OR** pulseless VT

### Trauma TOR

- **Mandatory PATCH Point to the BHP for authorization to apply the Trauma TOR** if applicable. If the BHP patch fails, or the Trauma TOR does not apply, transport to the closest appropriate receiving facility following the 1<sup>st</sup> analysis/defibrillation.
- **$\geq 16$  years old**
- No palpable pulses **AND** no defibrillations delivered **AND** rhythm is Asystole **AND** no signs of life at any time since fully extricated **OR** signs of life when fully extricated with the closest ED  $\geq 30$  min transport time away **OR** rhythm PEA with the closest ED  $\geq 30$  min transport time away
- **NO TOR** if patients with penetrating trauma to the torso or head/neck and Lead Trauma Hospital  $< 30$  min transport time away

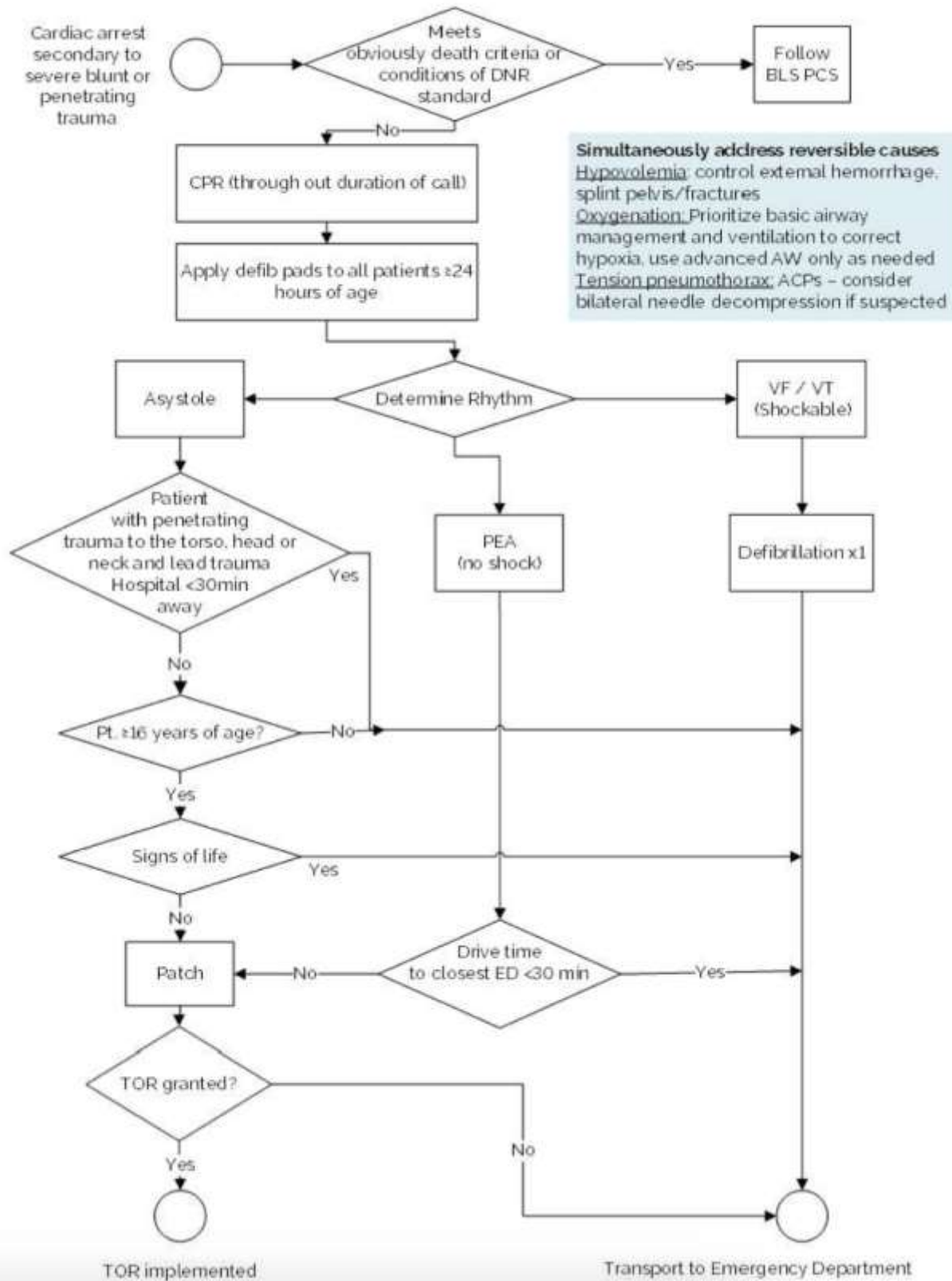
**Adult Doses ( $\geq 8$  years of age)**

<b>Treatment</b>	<b>Dose</b>	<b>Q</b>	<b>Repeat</b>	<b>Max dose</b>
<b>Manual defibrillation</b>	Max energy	N/A	N/A	1 dose
<b>Bolus IV</b>	20 ml/kg	Reassess every 250 ml	N/A	2,000 ml

**Pediatric Doses ( $\geq 24$  hours to  $< 8$  years of age)**

<b>Treatment</b>	<b>Dose</b>	<b>Q</b>	<b>Repeat</b>	<b>Max dose</b>
<b>Manual defibrillation</b>	2 J/kg	N/A	N/A	1 dose
<b>Bolus IV</b>	20 ml/kg	Reassess every 100 ml	N/A	2,000 ml

Cardiac arrest  
secondary to  
severe blunt or  
penetrating  
trauma



**NOTES: Pediatric Joule Settings**

<b>Weight</b>	<b>Age</b>	<b>Joules 2J/kg</b>
≥24 hr	4 kg/9 lb	15 J
≥24 hr	6 kg/13lb	20 J
≥24 hr	8 kg/18lb	20 J
< 1 year	10kg/22lb	30 J
1 year	12kg/26lb	30 J
2 years	14kg/31lb	50 J
3 years	16kg/35lb	50 J
4 years	18kg/40lb	50 J
5 years	20kg/44lb	50 J
6 years	22kg/48lb	50 J
7 years	24kg/53lb	Max joules settings Zoll 200J LP15 360 J
8 years	26kg/57lb	Max joules settings Zoll 200J LP15 360 J
9 years	28kg/62lb	Max joules settings Zoll 200J LP15 360 J
10 years	30kg/66lb	Max joules settings Zoll 200J LP15 360 J
11 years	35kg/77lb	Max joules settings Zoll 200J LP15 360 J



# Childbirth

## Emergency Childbirth

### Indications

Pregnant patient experiencing labour **OR** immediately following delivery

### Clinical Parameters

For all considerations, patient must be of childbearing years.

#### Delivery

- Second stage labour and/or imminent birth AND/OR:
  - Shoulder dystocia
  - Breech delivery
  - Prolapsed cord

#### Umbilical Cord Management

- Cord complications OR if newborn or maternal resuscitation is required OR due to transport considerations

#### Oxytocin

- Postpartum delivery (the placenta can be in or out)
- No allergy or sensitivity to oxytocin
- All fetuses have been delivered
- SBP < 160 mmHg
- No suspected or known preeclampsia with current pregnancy
- No eclamptic seizures with current pregnancy
- ≤ 4 hours post placenta delivery

#### External Uterine Massage

- Post-placental delivery

#### Bimanual Compression

- The placenta does not have to be delivered

## Adult doses

Medication	Initial Dose	Q	Repeat	Max
Oxytocin IM	10 units	N/A	N/A	1 dose

## Interventions

### Shoulder Dystocia

- Perform ALARM twice on scene. If successful, deliver the neonate. If unsuccessful, transport to closest appropriate facility

### Breech Delivery

- Hands off the breech. Allow neonate to deliver to the umbilicus
- Consider carefully releasing the legs & arms as they are delivered, if needed
- Once hairline is visible **AND/OR** 3 minutes has passed since umbilicus was visualized, attempt Mauriceau Smellie-Veit maneuver
- If successful, deliver the neonate. If unsuccessful, transport to closest appropriate facility

### Prolapsed Cord

- Elevate fetal part to relieve pressure on the cord
- Assist patient to the knee-chest or exaggerated Sims position
- Insert gloved fingers/hand into the vagina and apply gentle manual digital pressure to the presenting part; this is maintained until transfer of care

### Postpartum Hemorrhage - Pre-Placental Delivery

- If the placenta **has not** yet been delivered, consider:
  - Gentle cord traction while guarding the uterus
  - Bimanual compression if bleeding continues

## Postpartum Hemorrhage - Post-Placental Delivery

- If the placenta **has been delivered**, consider:
  - External uterine massage while guarding the uterus
  - Encouraging patient to void bladder
  - Bimanual compression if bleeding continues

## A spot for your notes

# Intravenous

# Intravenous and Fluid Therapy

## Indications

Actual or potential need for intravenous medication **OR** fluid therapy

## Clinical Parameters

### Cannulation:

- $\geq 2$  years and older
- No fracture proximal to the access site

### Bolus:

- For adults SBP  $< 90$  mmHg - for pediatric patients ( $< 70$  mmHg + (2 x age in years))
- Chest clear
- No signs of fluid overload-acute cardiogenic pulmonary edema

**Note:** Administer a fluid bolus until the patient is normotensive.

## Dosing ( $\geq 12$ years)

Medication	Dose	Q	Repeat	Max doses
NaCl TKVO IV	30 – 60 ml/hr	N/A	N/A	N/A
NaCl Fluid Bolus IV	20 ml/kg	Reassess every 250 ml	N/A	2,000 ml

## Pediatric Doses ( $\geq 2$ hours to $< 12$ years)

Medication	Initial Dose	Q	Repeat	Max doses
NaCl TKVO	15 ml/hr	N/A	N/A	N/A
NaCl Fluid Bolus IV	20 ml/kg	Reassess every 100 ml	N/A	2,000 ml

**A spot for your notes**

# Home Dialysis Emergency Disconnect



## Home Dialysis Emergency Disconnect

### Indications

Patient connected to home dialysis **AND**  
Requires transport to a receiving facility

### Clinical Parameters

Patient must be unable to disconnect themselves **AND** no caregiver who is knowledgeable in how to disconnect is present.

### Interventions

Disconnect

### Notes:

In general, the instructions will be found with the machine.

#### Sequence:

- Ensure the **patient side** is clamped first, and
- then the machine side, and
- then the tubing can be disconnected **between** the clamps.

# Hypoglycemia, Seizures and Opioids

# Hypoglycemia

## Indications

Suspected hypoglycemia

## Clinical Parameters

Altered LOA  
Hypoglycemia

**IN Glucagon:**  
≥4 years old

### Dextrose:

- Allergy or sensitivity to Dextrose

### Glucagon:

- No Pheochromocytoma
- No allergy or sensitivity to glucagon

## Vital Sign Parameters

### Hypoglycemia:

- ≥ 2 yrs < 4.0 mmol/L
- < 2 yrs < 3.0 mmol/L

In all cases Dextrose should be titrated to a level of awareness where the patient can safely consume complex carbohydrates.

### All doses (Age ≥ 2 years old)

Medication		Max Single Dose	Q	Repeat	Max doses
<b>D10W</b> IV	0.2 g/kg (2 ml/kg)	25 g (250 ml)	10 min	0.2 g/kg (2 ml/kg)	2 doses
<b>D50W</b> IV	0.5 g/kg (1 ml/kg)	25 g (50 ml)	10 min	0.5 g/kg (1 ml/kg)	2 doses

### All doses

Medication	Initial Dose	Q	Repeat	Max doses
Glucagon IM	< 25 kg (55lbs) 0.5 mg	20 min	0.5 mg	2 doses
Glucagon IM	≥ 25 kg 1 mg	20 min	1 mg	2 doses

### IN Glucagon

Medication	Initial Dose	Q	Repeat	Max doses
Glucagon IN	3mg IN	20 min	3mg IN	2 doses

# Hypoglycemia Treat and Discharge – IF AUTHORIZED

## Indications

Patient has been treated appropriately under the Hypoglycemia Medical Directive

### **AND**

An ACP, when authorized, **may discharge** a post hypoglycemic patient, according to the following:

## Considerations for Treat and Discharge:

All of the following criteria must be met:

- ☐ The patient is  $\geq 18$  AND  $< 65$  years old,
- ☐ The patient has a diagnosis of diabetes,
- ☐ The hypoglycemia is explained by insulin administration with inadequate oral intake,
- ☐ The hypoglycemia promptly responded to a single administration of Dextrose as per the Medical Directive and/or 1mg of Glucagon AND/OR 3MG IN glucagon and/or consumed oral glucose or other complex carbohydrates,
- ☐ This is a single isolated episode of symptomatic hypoglycemia in the past 24 hrs,
- ☐ The blood glucose is  $\geq 4.0$  mmol/L after treatment,
- ☐ The patient has a return to their normal level of consciousness and is asymptomatic,
- ☐ A complete set of vital signs are within expected normal ranges,

**AND.... (continued on next page)**

### **Considerations for Treat and Discharge:**

- ☐ Not an intentional overdose,
- ☐ The hypoglycemia must not be related to alcohol / substance abuse or withdrawal,
- ☐ No seizure or reported history of seizure prior to paramedic treatment,
- ☐ Not on an oral hypoglycemic medication,
- ☐ Hypoglycemia is not considered to be related to an acute medical illness,
- ☐ The patient is not pregnant,

**In addition to the above criteria, if all of the following requirements have been met, the patient can be discharged by Paramedics:**

- ☐ The patient has access to appropriate carbohydrates,
- ☐ A responsible adult agrees to remain with the patient for the next 4 hours,
- ☐ All of the patient or substitute decision makers questions were answered and a care plan was developed,
- ☐ The patient or substitute decision maker has been advised to follow up with their primary health care team or provider,
- ☐ Clear instructions to call 911 were provided should symptoms redevelop,
- ☐ Patient or substitute decision maker has the ability to access 911 should symptoms redevelop,

- Patient or substitute decision maker consents to the discharge.

Patch to BHP for consultation if you are unclear if the patient meets all of the discharge criteria.

**Note: Patients can receive multiple forms of treatment for hypoglycemia (i.e., dextrose and glucagon before consuming carbohydrates). If the patient receives two doses of glucagon or two doses of dextrose, they should be transported to the hospital.**

# Opioid Toxicity

## Indications

Altered LOC **AND**  
Respiratory depression **AND**  
Inability to adequately ventilate **OR** persistent need to ventilate **AND**  
Suspected opioid overdose

## Clinical Parameters

- Respiratory rate < 10 breaths/min
- No allergy or sensitivity
- Age greater than or equal to 24 hours
- Patient must have an altered LOA

## ≥ 24 hours old

Medication	Initial Dose	Q	Repeat	Max Doses
Naloxone IV	Up to 0.4 mg	5 min	Up to 0.4 mg	3 doses
Naloxone IM	0.4 mg	5 min	0.4 mg	3 doses
Naloxone SC	0.8 mg	5 min	0.8 mg	3 doses
Naloxone IN	2-4 mg	5 min	2-4 mg	3 doses



# Seizure Treat and Discharge - IF AUTHORIZED

## Indications

An ACP, when authorized, **may discharge** a post seizure patient, according to the following:

## Considerations for Treat and Discharge

**All of the following criteria must be met:**

- ☐ The patient is  $\geq 18$  AND  $< 65$  years old,
- ☐ Patient must have a history of epilepsy,
- ☐ The patient is taking their anticonvulsant medication as prescribed;
- ☐ The patient must have only had a single seizure episode in the past 24 hours,
- ☐ The seizure pattern and duration must be similar to past seizures,
- ☐ The patient has returned to their normal level of consciousness,
- ☐ A complete set of vital signs including temperature are within expected normal ranges,
- ☐ The seizure must not be related to hypoglycemia, alcohol or substance abuse or withdrawal,
- ☐ The patient must not have received midazolam by paramedics,
- ☐ The patient did not injure themselves during seizure activity,
- ☐ The patient must not have a fever, preceding illness or recently started a new medication,
- ☐ The patient is not pregnant,

**AND....**

### **Considerations for Treat and Discharge**

In addition to the above criteria, if all of the following requirements have been met, the patient can be discharged by Paramedics:

- ☐ A responsible adult agrees to remain with the patient for the next 4 hours,
- ☐ All of the patient or substitute decision makers questions were answered and a care plan was developed,
- ☐ The patient or substitute decision maker has been advised to follow up with their primary health care team or provider.
- ☐ Clear instructions to call 911 were provided should symptoms redevelop,
- ☐ Patient or substitute decision maker has the ability to access 911 should symptoms redevelop,
- ☐ Patient or substitute decision maker consents to the discharge.

Patch to BHP for consultation if you are unclear if the patient meets all of the discharge criteria.

# Nausea and Vomiting

## Indications

Nausea and/or Vomiting

## Clinical Parameters

### Ondansetron

- No allergy or sensitivity to ondansetron
- No prolonged QT syndrome known to the patient
- No Apomorphine (Apokyn) use
- Unaltered

### DimenhyDRINATE

- No allergy or sensitivity to DimenhyDRINATE or other antihistamines
- No overdose on antihistamines, anticholinergics, or tricyclic antidepressants
- Cannot be co-administered with DiphenhydrAMINE
- Unaltered

**\*\*If ondansetron is unavailable, assess the risks and benefits to pts.  $\geq$  65 years old for dimenhyDRINATE administration. This may include an initial reduced dose of 25 mg**

**All doses**

<b>Medication</b>	<b>Weight</b>	<b>Dose</b>	<b>Q</b>	<b>Max doses</b>
<b>DimenhyDRINATE</b> IV/IM	≥ 50 kg	25 or 50 mg	N/A	2 doses
<b>DimenhyDRINATE</b> IV/IM	25 to 49 kg	25 mg	N/A	1 dose
<b>Ondansetron</b> PO/IV/IM	≥ 25 kg	4 mg	N/A	1 dose

# Trauma

# Lateral Patellar Dislocation Medical Directive-Auxiliary

## Indications

### Indications

Patient with **suspected lateral patellar** dislocation.

## Clinical Parameters

### Conditions

- **Age:**  $\geq 10$  years to  $\leq 50$  years
- **LOA:** Unaltered
- **HR:** N/A
- **RR:** N/A
- **SBP:** N/A
- **Other:** N/A

### Contraindications

- High-velocity trauma
- Direct knee trauma

# Traumatic Hemorrhage Medical Directive-Auxiliary

## Indications

Suspected hemorrhage (external or internal) due to trauma  
**AND**  
Hemodynamic instability

## Clinical Parameters

### TXA Indications:

- AGE  $\geq 16$  years
- LOA N/A
- HR N/A
- RR N/A
- SBP N/A
- Other HR  $\geq 110$  BPM or Hypotensive

### TXA Contraindications:

- Known hypersensitivity to TXA
- Greater than 3 hours from the time of injury to drug administration  
**OR unknown time of injury**
- Isolated head injury



**Adult Doses (≥ 16 years)**

Initial Dose	Max. Single Dose	Repeat	Max # of dose
IV/IM 1000mg	1000mg IV route should be administered over 5 minutes to mitigate transient hypotension	N/A	1 dose

**Space for Notes:**

# CBRNE Medical Directives

# Adult Nerve Agent- AUXILIARY CHEMICAL EXPOSURE

## Indications

Exposure to a known or suspected nerve agent;  
AND  
Signs and symptoms of a cholinergic crisis.

## Clinical Parameters

### Atropine, diazePAM, midazolam, and Pralidoxime

- AGE  $\geq 18$  years
- LOA N/A
- HR N/A
- RR N/A
- SBP N/A
- Other Suspected cholinergic crisis

### Moderate Exposure

- Any one of the following: vomiting, diarrhea, bronchospasm or bronchial secretions, shortness of breath or any known liquid exposure

### Severe Exposure

- Signs and Symptoms of a moderate exposure and any one of the following: decreased LOA, paralysis, seizure or apnea

### Contraindications:

Atropine: Allergy or sensitivity to atropine

Pralidoxime: Allergy or sensitivity to Pralidoxime

DiazePAM: Allergy or sensitivity to DiazePAM:

Midazolam: Allergy or sensitivity to midazolam

**Adult Dose (≥ 18 years of age)**

Medication	Initial Dose	Q	Repeat	Max doses
Atropine <b>IM Moderate Exposure</b>	<b>2mg</b>	N/A	5 min.	n/a

**Adult Dose (≥ 18 years of age)**

Medication	Initial Dose	Q	Repeat	Max doses
Atropine <b>IM Severe Exposure</b>	<b>6mg</b>	N/A	5 min.	n/a

**Adult Dose (≥ 18 years of age)**

Medication	Initial Dose	Q	Repeat	Max doses
<b>Pralidoxime</b> <b>IM Moderate Exposure</b>	<b>600mg</b>	3	15 min.	3

**Adult Dose (≥ 18 years of age)**

Medication	Initial Dose	Q	Repeat	Max doses
<b>Pralidoxime</b> <b>IM Severe Exposure</b>	<b>1800mg</b>	2	60 min.	2

**Adult Dose (≥ 18 years of age)**

Medication	Initial Dose	Q	Repeat	Max doses
diazePAM <b>IM Moderate Exposure</b>	10mg	N/A	NO	1

**Adult Dose (≥ 18 years of age)**

Medication	Initial Dose	Q	Repeat	Max doses
Midazolam <b>IM Moderate Exposure</b>	10mg	2	5 minutes	2

# Pediatric Nerve Agent- AUXILIARY CHEMICAL EXPOSURE

## Indications

Exposure to a known or suspected nerve agent;

AND

Signs and symptoms of a cholinergic crisis.

## Clinical Parameters

### Atropine, diazePAM, midazolam, and Pralidoxime

- AGE < 18 years
- LOA N/A
- HR N/A
- RR N/A
- SBP N/A
- Other Suspected cholinergic crisis

### Moderate Exposure

- Any one of the following: vomiting, diarrhea, bronchospasm or bronchial secretions, shortness of breath or any known liquid exposure

### Severe Exposure

- Signs and Symptoms of a moderate exposure and any one of the following: decreased LOA, paralysis, seizure or apnea

### Contraindications:

Atropine: Allergy or sensitivity to atropine

Pralidoxime: Allergy or sensitivity to Pralidoxime

DiazePAM: Allergy or sensitivity to DiazePAM:

Midazolam: Allergy or sensitivity to midazolam

**Adult Dose (≥ 18 years of age)**

Medication	Initial Dose	Q	Repeat	Max doses
<b>Pralidoxime</b> IM Severe Exposure	1800mg	2	60 min.	2

**Atropine**

Weight Category	Exposure Severity	Route	Initial Dose	Max. Single Dose	Repeat	Max # of Dose
< 10 kg	Moderate/ Severe	IM	0.5 mg	0.5 mg	q5 min	Not specified
10 kg to < 40 kg	Moderate/ Severe	IM	1 mg	1 mg	q5 min	Not specified
≥ 40 kg	Moderate	IM	2 mg	2 mg	q5 min	Not specified
≥ 40 kg	Severe	IM	6 mg	6 mg	q5 min	Not specified

**Pralidoxime**

Weight Category	Exposure Severity	Route	Dose	Max. Single Dose	Dosing Interval	Max. # of Doses
< 40 kg	Moderate	IM	15 mg/kg	600 mg	15 min.	3
< 40 kg	Severe	IM	45 mg/kg	600 mg	60 min.	2
≥ 40 kg	Moderate	IM	600 mg	600 mg	15 min.	3
≥ 40 kg	Severe	IM	1800 mg	1800 mg	60 min.	2

Medication	Weight Category	Route	Dose	Max. Single Dose	Dosing Interval	Max. # of Doses
diazePAM	< 50 kg	IM	0.2 mg/kg	10 mg	N/A	1
diazePAM	≥ 50 kg	IM	10 mg	10 mg	N/A	1
midazolam (if not using diazePAM)	< 50 kg	IM	0.2 mg/kg	10 mg	5 min.	2
midazolam (if not using diazePAM)	≥ 50 kg	IM	10 mg	10 mg	5 min.	2



# Cyanide Exposure- AUXILIARY CHEMICAL EXPOSURE

## Indications

Suspected exposure to cyanide with signs and symptoms of poisoning  
AND

Cardiac arrest; or

Altered level of awareness; OR

Hypotension

## Clinical Parameters

- Altered LOA
- No allergies or sensitivity to any medication considered

## Adult Dose (≥ 18 years of age)

Medication	Initial Dose	Q	Repeat	Max doses
Hydroxocobalamin IV/IO/CVAD	5g over 15 – 30 min	N/A	N/A	1 dose

## Pediatric Doses

Medication	Initial Dose	Q	Repeat	Max doses
------------	--------------	---	--------	-----------

<b>Hydroxocobalamin</b> IV/IO/CVAD	70 mg/kg over 30 min Max single dose of 5 g	N/A	N/A	1 dose
---------------------------------------	--	-----	-----	-----------

**A spot for your notes**

### Hydroxocobalamin Dosing Chart – Pediatric

Weight (kg)	Dose	Concentration	Volume
5	350mg/kg	25 mg/ml	14 ml
10	700mg	25 mg/ml	28 ml
15	1050mg	25 mg/ml	42 ml
20	1400mg	25 mg/ml	56 ml
25	1750mg	25 mg/ml	70 ml
30	2100mg	25 mg/ml	84 ml
35	2450mg	25 mg/ml	98 ml
40	2800	25 mg/ml	112 ml
≥41	5g	25 mg/ml	200ml

## Hydrofluoric (HF) Acid Exposure- AUXILIARY CHEMICAL EXPOSURE

### Indications

Exposure to vapour and/or liquid Hydrofluoric acid (HF) **AND**  
Exhibits signs and symptoms of HF poisoning

### Clinical Parameters

- No allergy or sensitivity to any medication considered

### All doses

Medication	Initial Dose	Q	Repeat	Max doses
<b>Calcium Gluconate</b> (10% solution) Inhalation exposure NEB	100 mg	N/A	N/A	1 dose
<b>Calcium Gluconate</b> (2.5% gel) Skin exposure TOP	N/A	N/A	PRN	N/A
<b>Anaesthetic Eye Drops</b> TOP	2 gtts/eye	10 min	2 gtts/eye	N/A

# Symptomatic Riot Agent Exposure

## Medical Directive – AUXILIARY

### CHEMICAL EXPOSURE

#### Indications

Known or suspected exposure to a riot agent with signs and symptoms of a riot agent exposure

#### Clinical Parameters

**Topical Anaesthetic eye drops**

**Contraindications:**

Allergy or sensitivity to local anaesthetics

#### All doses

Medication	Initial Dose	Q	Repeat	Max doses
<b>Anaesthetic Eye Drops</b> TOP	2 gtts/eye	10 min	2 gtts/eye	N/A

## A Spot for your Notes:

# Special Event Medical Directives

## Indications **Headache (Special Events Only)**

Uncomplicated headache conforming to the patient's usual pattern **AND** A mass gathering that could potentially strain the resources of the host community **AND** The special event directive has been authorized for use by the Medical Director for a specific mass gathering.

### Clinical Parameters

- ≥ 18 years old
- Unaltered LOA
- No allergy or sensitivity to Acetaminophen
- No Acetaminophen in the last 4 hours
- No signs or symptoms of intoxication

### Adult Doses (≥ 18 years of age)

Medication	Initial Dose	Q	Repeat	Max doses
Acetaminophen PO	325 – 650 mg	N/A	N/A	1 dose



# Minor Abrasion (Special Events Only)

## Indications

Minor abrasions **AND** A mass gathering that could potentially strain the resources of the host community **AND** The special event directive has been authorized for use by the Medical Director for a specific mass gathering.

## Clinical Parameters

- ≥ 18 years old
- Unaltered LOA
- No allergy or sensitivity to topical antibiotics

## Adult Doses (≥ 18 years of age)

Medication	Initial Dose	Q	Repeat	Max doses
Topical Antibiotic	N/A	N/A	N/A	1 dose

# Minor Allergic Reaction (Special Events Only)

## Indications

Signs consistent with minor allergic reaction **AND** A mass gathering that could potentially strain the resources of the host community **AND** The special event directive has been authorized for use by the Medical Director for a specific mass gathering.

## Clinical Parameters

- $\geq 18$  years old
- Unaltered LOA
- SBP  $\geq 100$  mmHg (and other vital signs within normal limits)
- No allergy or sensitivity to DiphenhydrAMINE
- No antihistamine or sedative use in the previous 4 hours
- No signs or symptoms of a moderate to severe allergic reaction
- No signs or symptoms of intoxication
- No wheezing

## Adult Doses ( $\geq 18$ years of age)

Medication	Initial Dose	Q	Repeat	Max doses
DiphenhydrAMINE PO	50 mg	N/A	N/A	1 dose

# Musculoskeletal Pain (Special Events Only)

## Indications

Minor musculoskeletal pain **AND** A mass gathering that could potentially strain the resources of the host community **AND** The special event directive has been authorized for use by the Medical Director for a specific mass gathering.

## Adult Doses (≥ 18 years of age)

Medication	Initial Dose	Q	Repeat	Max doses
Acetaminophen PO	325 – 650 mg	N/A	N/A	1 dose

## Clinical Parameters

- ≥ 18 years old
- Unaltered LOA
- No allergy or sensitivity to Acetaminophen
- No Acetaminophen use in the previous 4 hours
- No signs or symptoms of intoxication

## Notes:

The Special Event Medical Directives are in force when they have been preauthorized for use by the Medical Director.

Special Event: a preplanned gathering with potentially large numbers of people.

Consider release from care.

Advise patient that if the problem persists or worsens that they should seek further medical attention.

**Space for Notes:**

# Palliative Care Medical Directives

# Palliative Care-Hallucinations

## Indications

Patient registered in palliative care program

**AND**

Increasing agitation or suspected new or increased hallucinations

## Clinical Parameters

### Haloperidol:

- $\geq 18$
- No allergy to haloperidol
- Does not have Parkinson's or Lewy Body Dementia
- Does not have Neuroleptic Malignant Syndrome

### Midazolam

- $\geq 18$
- No allergy to Midazolam

## Adult doses

Medication	Dose	Max single dose	Q	Repeat	Max doses
Haloperidol SC	0.5-1 mg	1 mg	30 min	Same as initial	2 doses

# Palliative Care - NAUSEA OR VOMITING

## Indications

Patient registered in palliative care program

**AND**

Nausea and/or vomiting

## Clinical Parameters

### Haloperidol:

- ≥ 18 years old
- No allergy or sensitivity
- Does not have Parkinson's or Lewy Body Dementia
- Does not have Neuroleptic Malignant Syndrome

### Ondansetron:

- ≥ 18 years old
- No allergy or sensitivity
- Haloperidol contraindicated

### DimenhyDRINATE:

- ≥ 18 years old
- No allergy or sensitivity
- Haloperidol contraindicated
- No overdose on antihistamines, anticholinergics or tricyclic antidepressants

## Adult doses

Medication	Dose	Max single dose	Q	Repeat	Max doses
<b>Haloperidol</b> SC / IV / CVAD	0.5-1 mg	1 mg	30 min	Same as initial	2 doses
<b>Ondansetron</b> PO / SC	4 mg	4 mg	N/A	N/A	1 dose
<b>DimenhyDRINATE</b> SC	25-50 mg	50 mg	N/A	N/A	1 dose

# Palliative Care - TERMINAL CONGESTED BREATHING

## Indications

Patient registered in palliative care program

**AND**

Congested / loud / rattling breathing in patients near the end of life

## Clinical Parameters

### Glycopyrrolate:

- ≥ 18 years old
- No allergy or sensitivity

### Atropine

- ≥ 18 years old
- No allergy or sensitivity

## Adult doses

Medication	Dose	Max single dose	Q	Repeat	Max
<b>Glycopyrrolate</b> SC	0.4 mg	0.4 mg	N/A	N/A	1 dose

## Adult doses

Medication	Dose	Max single dose	Q	Repeat	Max
<b>Atropine</b> SC	0.4 mg	0.4 mg	N/A	N/A	1 dose



# Palliative Care - TREAT AND REFER

## Indications

Patient registered in palliative care program, **AND**  
Symptoms improved to patients/SDM satisfaction, **AND**  
After informed discussion patient/SDM preference to remain home

## Clinical Parameters

- $\geq 18$
- Valid DNR: registered in Paramedic Palliative Care Program
- No concerns of patient abuse or neglect
- Patient and SDM demonstrate decision making capacity based on the Aid to Capacity Evaluation Tool
- No uncontrolled or new seizures

## Treat and Refer

Paramedics may treat patients according to this medical directive and, in collaboration with the patient / SDM, honour wishes to remain at home (treat and refer). Paramedics will notify the patients palliative care team. `

**ADDITIONAL NOTES:**

**ADDITIONAL NOTES:**

**ADDITIONAL NOTES:**

