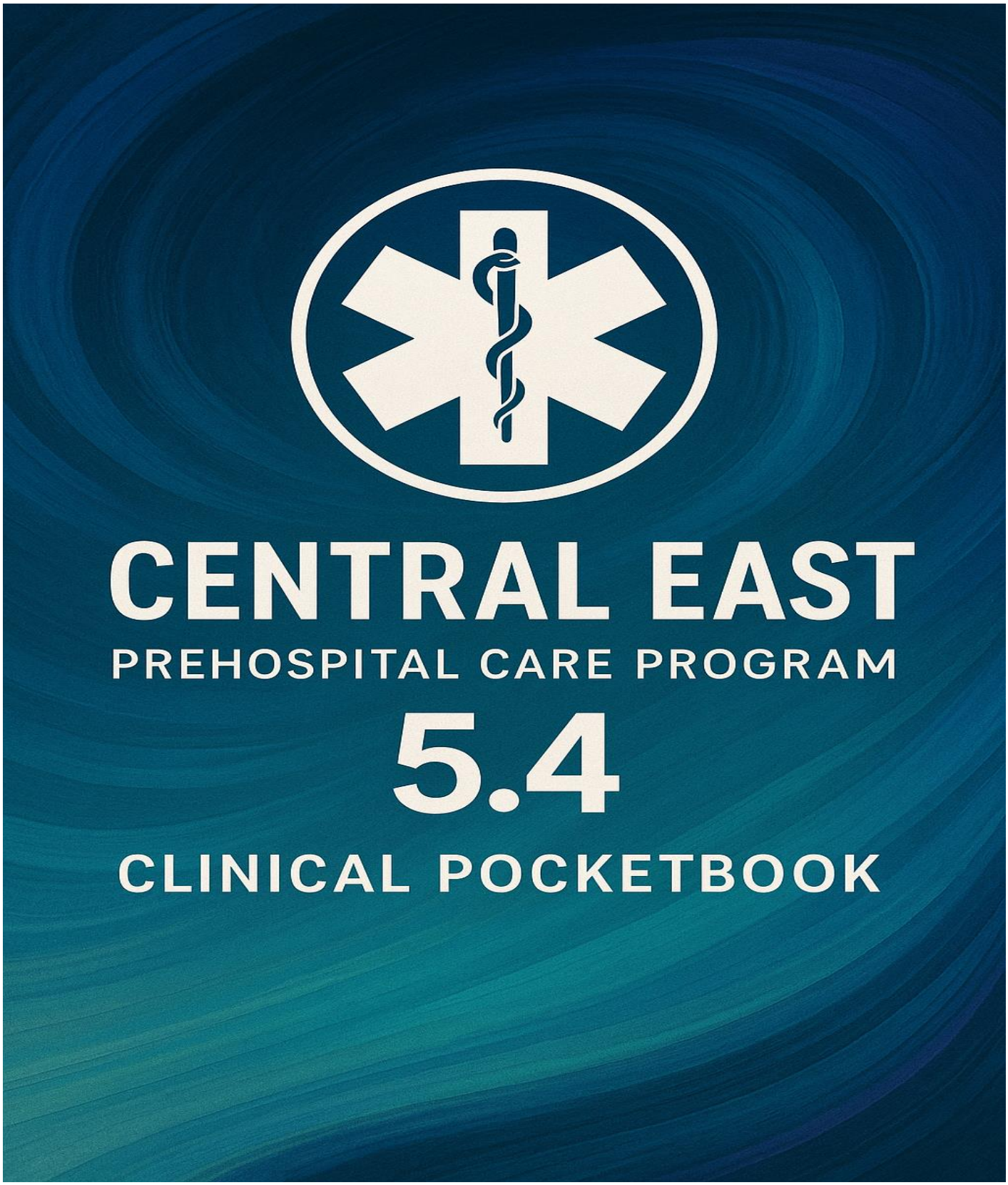
CENTRAL EAST
PREHOSPITAL CARE PROGRAM
5.4
CLINICAL POCKETBOOK

Durham
Haliburton
Kawartha Lakes
Northumberland
Peterborough
York

CEPCP

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

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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, M**edical 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

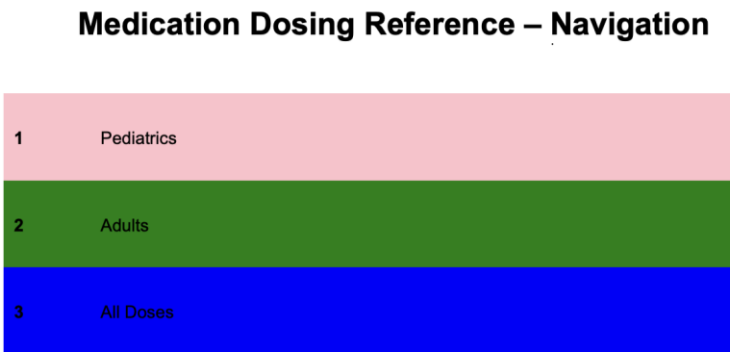
Each directive follows a standardized structure:

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
- **Medication Safety Colour Standardization: We have standardized colouring in the pocketbook to improve usability and enhance medication safety.**



Feedback & Versioning

We welcome suggestions or improvements. Please contact:

Email: cepcp@cepcp.ca
Website: 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

Or Scan here to go to the Clinical Notes Section

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 ≥ 38C 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
Hydrocortisone IM / IV	2 mg/kg Max 100 mg **May be rounded to the nearest 10mg.**	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**
EPINEPHrine 1:1000 IM (1mg/1ml)	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**
Dexamethasone PO / IM / IV PO is the preferred route IM/IV routes should be reserved for patients that cannot tolerate PO.	0.5 mg/kg	8 mg	N/A	N/A	1 dose

Dexamethasone Dosing Reference

Chart 1: Concentration 10 mg/mL

Weight (kg)	Dose (mg)	Volume (mL, 10 mg/mL)
1	0.5	0.05
2	1.0	0.1
3	1.5	0.15
4	2.0	0.2
5	2.5	0.25
6	3.0	0.3
7	3.5	0.35
8	4.0	0.4
9	4.5	0.45
10	5.0	0.5
11	5.5	0.55
12	6.0	0.6
13	6.5	0.65
14	7.0	0.7
15	7.5	0.75
>=16	8.0	0.8

EPINEPHrine Dosing Chart-IM only**

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

NOTES: Proper assembly of the BVM and the MDI aerochamber. 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 ≥ 28 breaths/minutes
- SpO_2 < 90% OR accessory muscle use
- SBP ≥ 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 (≥ 18 years of age)

Initial setting	Titration increment	Titration interval	Max setting
5 cm H_2O	2.5 cm H_2O	5 min	15 cm H_2O

If the device has adjustable FiO_2, start at the lower setting and only increase if SpO_2 remains < 92% despite treatment and / or CPAP pressure of 10 cmH_2O

- 8l/min=5 cmH_2O
- 10l/min=8 cmH_2O (accepted titration for the CPAP model)
- 12l/min=10 cmH_2O
- 15lmin= 15 cmH_2O

A 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 1:1000 [1 mg/ml] NEB	< 10 kg	2.5 mg (2.5 ml)	2.5 mg	N/A	1 dose
EPINEPHrine 1:1000 [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

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

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

Consider Suctioning (ETT/Tracheostomy)					
Patient	**Initial Suction pressure**	**Max single dose**	**Q**	**Repeat**	**Max doses**
Infant < 1 year	60 – 100 mmHg	10 seconds	1 min	Same as initial	N/A
Child ≥ 1 year to < 12 years	100 – 120 mmHg	10 seconds	1 min	Same as initial	N/A
Adult ≥ 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**
Infant < 1 year	60 – 100 mmHg	Until fluid disappears or after 15 seconds of no fluid return	N/A	Same as initial	N/A
Child ≥ 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
Adult ≥ 12 years	100 – 150 mmHg	Until fluid disappears or after 15 seconds of no fluid return	N/A	Same as initial	N/A

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

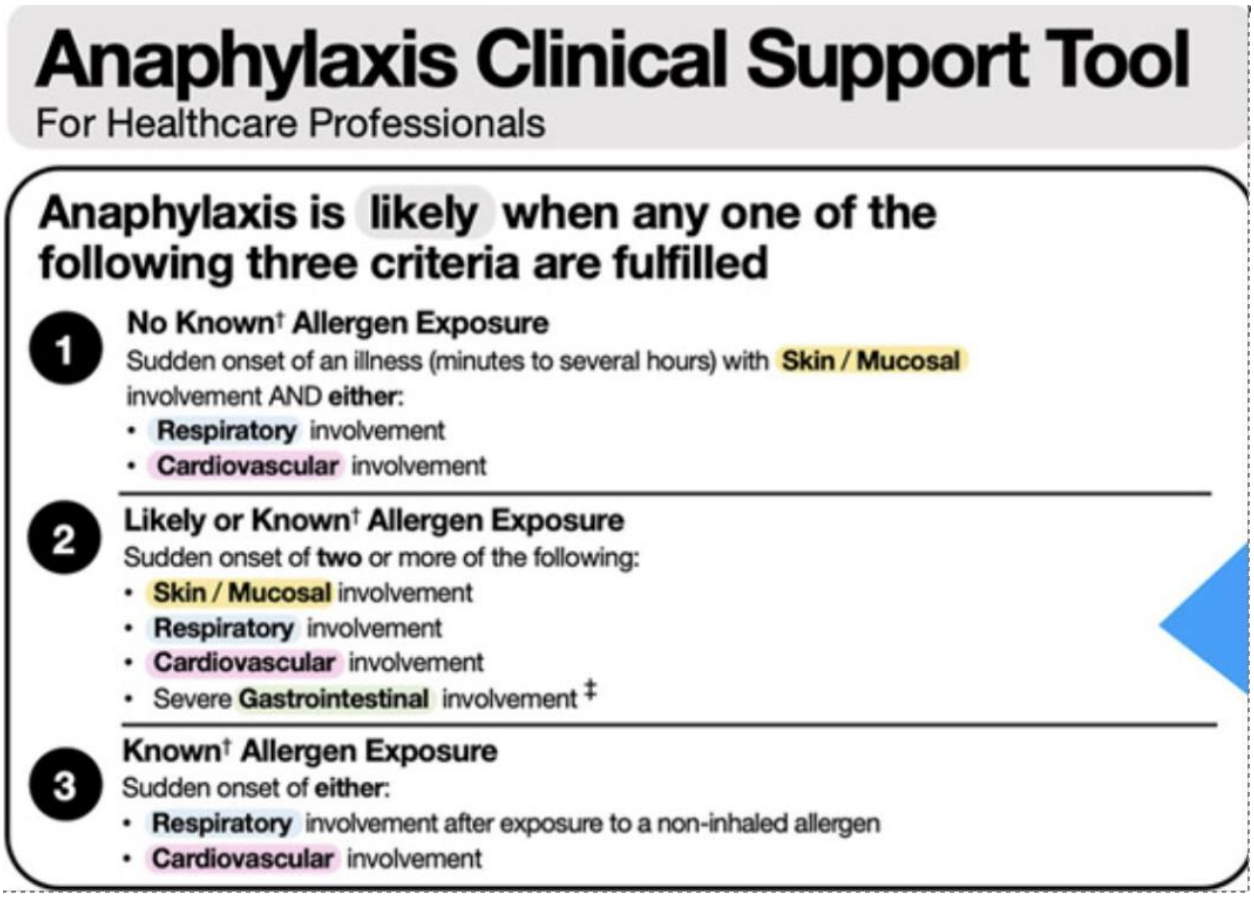
- Weight must be ≥ 25 kg

Adult Doses

Medication	Initial Dose	Q	Repeat	Max doses
EPINEPHrine 1:1000 [1 mg/ml] IM ONLY***	0.01 mg/kg Max 0.5 mg (0.5ml)	Min 5 min	same as initial	2 doses
DiphenhydrAMINE IV / IM	50 mg if ≥ 50 kg 25 mg if 25-49 kg	N/A	N/A	1 dose

Pediatric Doses

Medication	Initial Dose	Q	Repeat	Max doses
EPINEPHrine 1:1000 [1 mg/ml] IM ONLY ***	0.01 mg/kg Max 0.5 mg	Min 5 min	same as initial	2 doses
DiphenhydrAMINE IV / IM	25 mg if 25-49 kg	N/A	N/A	1 dose



EPINEPHrine Dosing Chart-IM only**

Weight (kg)	Dose (mg)	Volume (mL) to Administer that is rounded
4	0.04	0.05
6	0.06	0.05
8	0.08	0.10
10	0.10	0.10
12	0.12	0.10
14	0.14	0.15
16	0.16	0.15
18	0.18	0.20
20	0.20	0.20
22	0.22	0.20
24	0.24	0.25
26	0.26	0.25
28	0.28	0.30
30	0.30	0.30
32	0.32	0.30
34	0.34	0.35
36	0.36	0.35
38	0.38	0.40
40	0.40	0.40
42	0.42	0.40
44	0.44	0.45
46	0.46	0.45
48	0.48	0.50
50	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	$ETCO_2$ (waveform capnography) **must** be used if available.	• $ETCO_2$ (non-waveform capnography) • Auscultation • Chest rise

Maximum 2 attempts per patient.

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

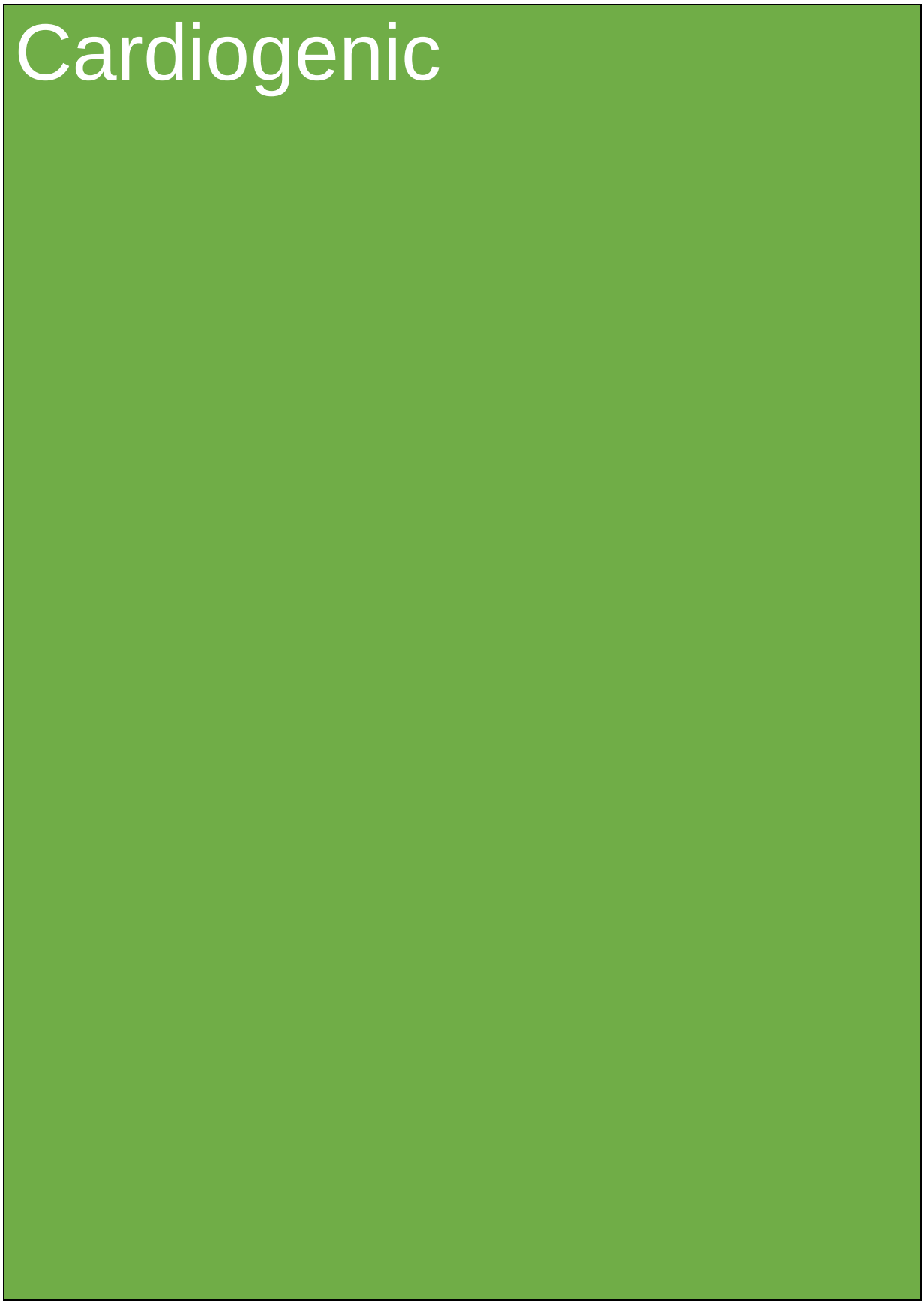
Indications
Pain

Medication	Clinical Parameters	Contraindications
Acetaminophen	• ≥ 12 years old • Unaltered	• Acetaminophen use within previous 4 hours • Allergy or sensitivity to acetaminophen • Active vomiting • Hx of liver disease • Suspected ischemic chest pain • Unable to tolerate oral medication

Ibuprofen	• ≥ 12 years old • Unaltered	• NSAID use within previous 6 hours • Allergy or sensitivity to ASA or NSAIDs • Current active bleeding • Patient on anticoagulation therapy (not anti-platelet therapy) • History of peptic ulcer disease or GI bleed • Asthmatic with no prior ASA/NSAID use • Active vomiting • Known renal impairment • CVA or TBI in the previous 24 hours • Unable to tolerate oral medication • Suspected ischemic chest pain • Pregnant

Ketorolac	• ≥ 12 years old • Unaltered	• NSAID use within previous 6 hours • Allergy or sensitivity to ASA or NSAIDs • Current active bleeding • Patient on anticoagulation therapy (not anti-platelet therapy) • History of peptic ulcer disease or GI bleed • Asthmatic with no prior ASA/NSAID use • Active vomiting • Known renal impairment • CVA or TBI in the previous 24 hours • Unable to tolerate oral medication • Suspected ischemic chest pain • Pregnant

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
Acetaminophen	≥12 <18	500-650mg	650mg	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	Vital Sign 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	• 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**
Nitroglycerin SL SBP 100 – 139 mmHg WITH an IV or History of use	0.4 mg	5 min	0.4 mg	6 doses
Nitroglycerin SL SBP ≥ 140 mmHg and **NO** History or IV	0.4 mg	5 min	0.4 mg	6 doses
Nitroglycerin SL SBP ≥ 140 mmHg **WITH** 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 ≥ 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 ≥ 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

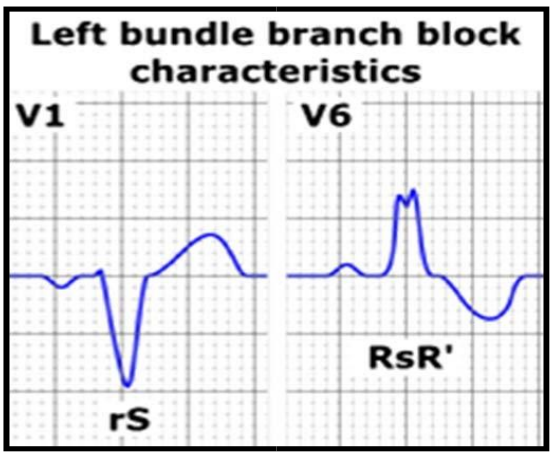
Adult Doses (≥ 18 years of age)				
Medication	**Initial Dose**	**Q**	**Repeat**	**Max dose**
Nitroglycerin SL (Non-STEMI)	0.4 mg	5 min	0.4 mg	6 doses
Nitroglycerin SL (STEMI)	0.4 mg	5 min	0.4 mg	3 doses
ASA PO	160 - 162 mg	N/A	N/A	160 - 162 mg

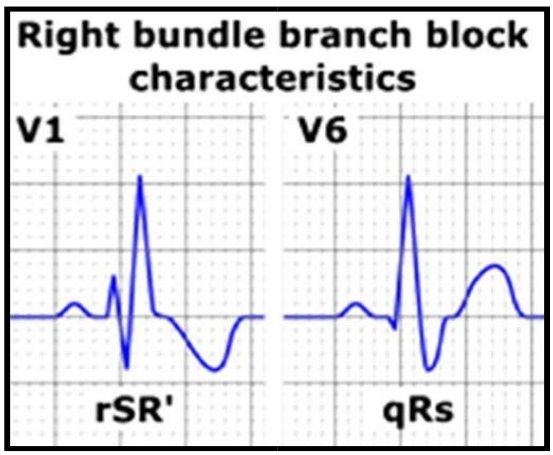
Common Imitators of AMI

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

LBBB

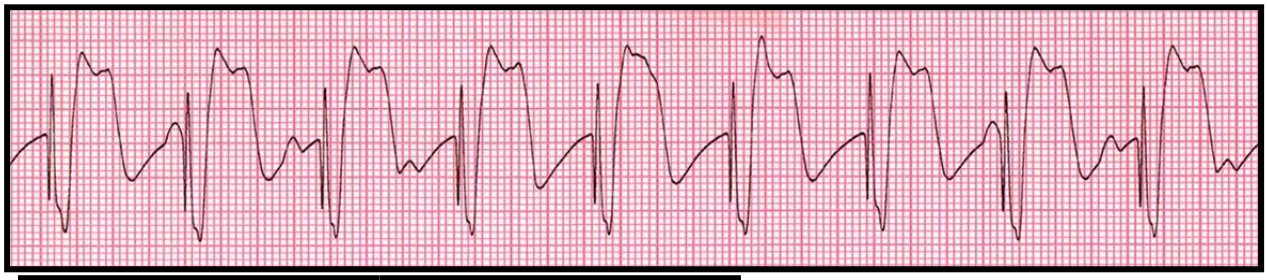
- Characterized by a supraventricular rhythm (identified by the presence of P waves and a 1:1 occurrence with QRS waves) & a wide (> 120 ms) QRS complex.
- A LBBB will have a -ve terminal deflection in V1 and typically a secondary R wave in V6 (seen as a notched complex seen as RsR' below). A STEMI cannot 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.

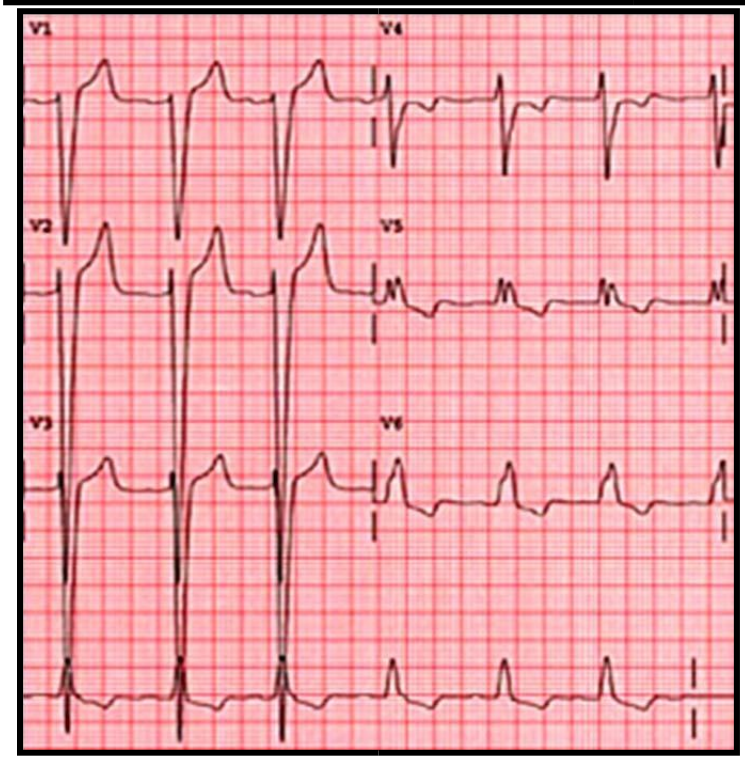




Ventricular Paced Rhythm

- 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)

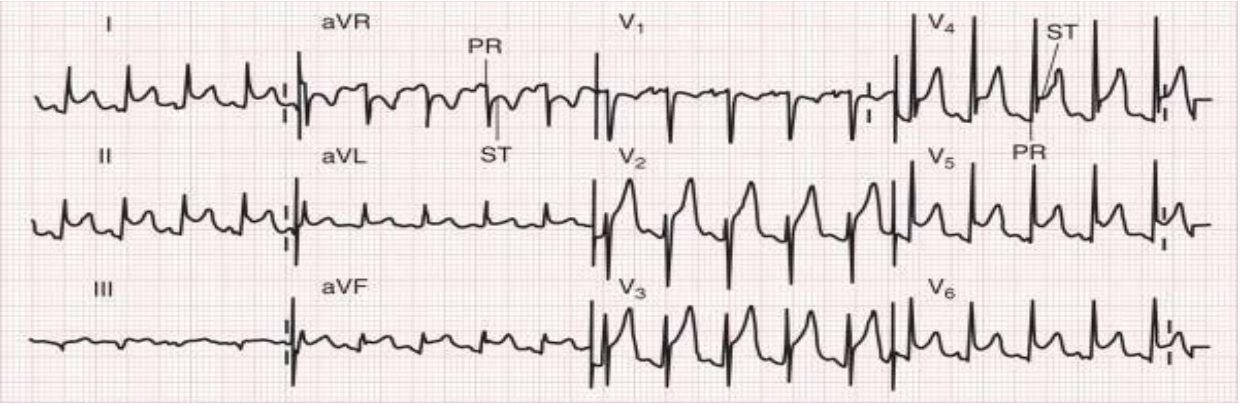
Look at the RS complex in either V1 or V2 and count the small boxes of the -ve deflection

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
Bolus 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 ≥ 100 mmHg
- Unaltered LOA
- Use for regular narrow complex tachycardia ≥ 150 bpm
- Not for sinus tachycardia, A-fib, or A-flutter

Adult Doses (≥ 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

A PCP 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 ≥ 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 ≥ 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

- ≥ 24 hours old **AND** Altered LOA
- VF OR pulseless VT

DSED or Vector Change

- ≥ 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)

- ≥ 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
- ≥ 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 ≥ 20 weeks gestation
- Suspected hypothermia
- Airway obstruction
- Non-opioid drug overdose/toxicology

Adult Defib Dosing (≥8 years of age)

- Interpret, print and code mark/snapshot the rhythm every 2 minute.
- For Zoll and LP15 provide energy as per RBHP/manufacturer.

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
DSED or VC **MUST BE ≥ 18**	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
EPINEPHrine 1MG/ML 1:1000 (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.

SBAR – Medical TOR Patch Script
Situation

- "This is [your name], a Primary Care Paramedic on vehicle [number], patching for a *Termination of Resuscitation* in a cardiac arrest."
- "Patient is an approximately [age]-year-old [male/female]."

Background

- Arrest not witnessed by paramedics.
- No defibrillation indicated.
- No return of spontaneous circulation observed.
- Last seen at [time], complaining of [symptom/condition].
- Past medical history: [relevant history].

Assessment

- Based on TOR criteria, resuscitation could be terminated at this time.

Recommendation

- "I am requesting authorization to terminate resuscitation."
- "Would you like any further clinical information?"

Possible BHP Questions

- Estimated time from notification to arrival on scene.
- Was the arrest witnessed by a bystander?
- Was bystander CPR performed?
- Any extrication issues delaying treatment/transport?
- Estimated transport time to receiving hospital.

Pediatric Joule settings

DOSING: ≥ 24 HOURS 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	200J Zoll 360 LP15

(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

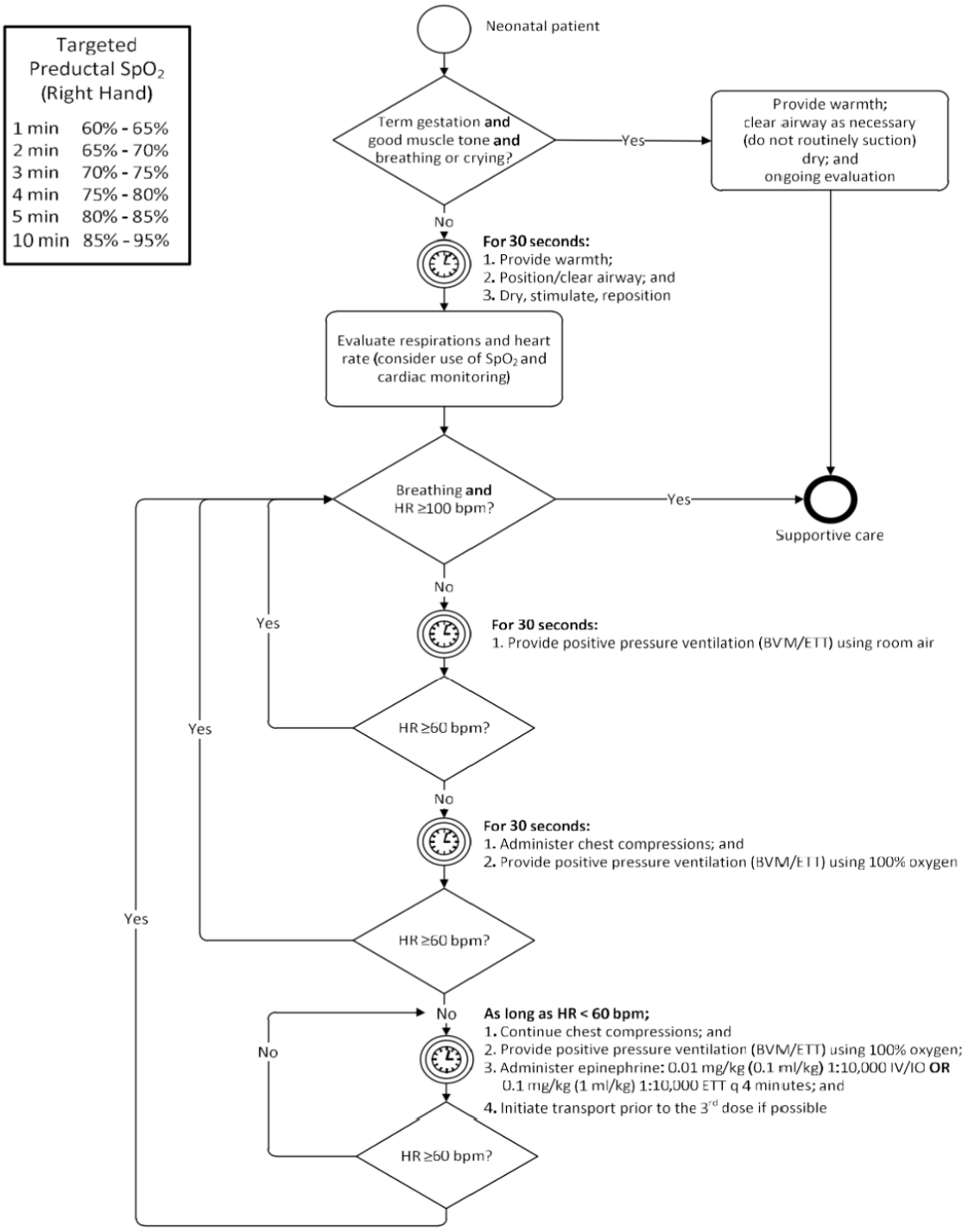
Positive Pressure Ventilation

- HR < 100

CPR

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

A Spot for your Notes:


Targeted Preductal SpO_2 (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%
Neonatal patient
Term gestation and good muscle tone and breathing or crying?
Yes
Provide warmth; clear airway as necessary (do not routinely suction) dry; and ongoing evaluation
No
For 30 seconds:
1. Provide warmth;
2. Position/clear airway; and
3. Dry, stimulate, reposition
Evaluate respirations and heart rate (consider use of SpO_2 and cardiac monitoring)
Breathing and HR ≥100 bpm?
Yes
Supportive care
No
Yes
For 30 seconds:
1. Provide positive pressure ventilation (BVM/ETT) using room air
HR ≥60 bpm?
Yes
No
For 30 seconds:
1. Administer chest compressions; and
2. Provide positive pressure ventilation (BVM/ETT) using 100% oxygen
HR ≥60 bpm?
Yes
No
As long as HR < 60 bpm;
1. Continue chest compressions; and
2. Provide positive pressure ventilation (BVM/ETT) using 100% oxygen;
3. Administer epinephrine: 0.01 mg/kg (0.1 ml/kg) 1:10,000 IV/IO OR 0.1 mg/kg (1 ml/kg) 1:10,000 ETT q 4 minutes; and
4. Initiate transport prior to the 3rd dose if possible
HR ≥60 bpm?
No

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	**Thin, translucent, veins visible**	**No creases on soles**	**Minimal tone, floppy limbs**	**Eyes fused, limbs thin and elongated, visible veins, abdomen slightly rounded**	**Approximately 300 grams**
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

Size	Colour	Patient
1	Pink	< 5 kg

King LT Reference

Size	Colour	Patient
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
Bolus IV Macodrip set)	10 ml/kg	Reassess every 250 ml	N/A	1000 ml

Pediatric Doses (less than 12 years old)

Medication	Initial Dose	Q	Titration	Max dose
Bolus IV (Microdrip set)	10 ml/kg	Reassess every 100 ml	N/A	1000 ml

PCP AND ACP ROSC Checklist

Hemodynamics Optimization

- ■ Target SBP ≥90 mmHg or MAP ≥65 mmHg
- ■ Start with 250 mL 0.9% NaCl if lungs are clear
- ■ Reassess after each bolus; continue up to 1000 mL total
- ■ If SBP <90 mmHg or poor perfusion persists:
- ■ → Initiate dopamine at 5 mcg/kg/min
- ■ → Titrate every 5 min by 5 mcg/kg/min up to 20 mcg/kg/min

12-lead & STEMI Identification

- ■ Obtain 12-lead ECG after stabilizing ABCs
- ■ Repeat serial 12-leads if non-diagnostic
- ■ Identify STEMI and prioritize PCI-capable center
- ■ Notify hospital early with ECG & clinical status
- ■ Reapply defib pads if STEMI is present

Temperature Management

- ■ Monitor for rising temperature after ROSC
- ■ Avoid hyperthermia >37.7°C
- ■ Minimize heat retention during transport
- ■ Consider cool ambulance environment
- ■ If hyperthermia suspected: apply cold packs
- ■ Report fever to receiving facility

Sedation & Seizure Management

- ■ Sedate only when clinically indicated
- ■ Use small, titrated doses for discomfort
- ■ Sedation may be appropriate for intubated patients
- ■ Patch if patient with iGel requires sedation for removal
- ■ Monitor and document patient response carefully

Safe Transport & Continuous Monitoring

- ■ Ensure continuous monitoring en route
- ■ Anticipate re-arrest at all times
- ■ Provide structured handover with updates to receiving facility

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

- ≥ 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 1st analysis/defibrillation.
- ≥ 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 **≥** 30 min transport time away **OR** rhythm PEA with the closest ED **≥** 30 min transport time away

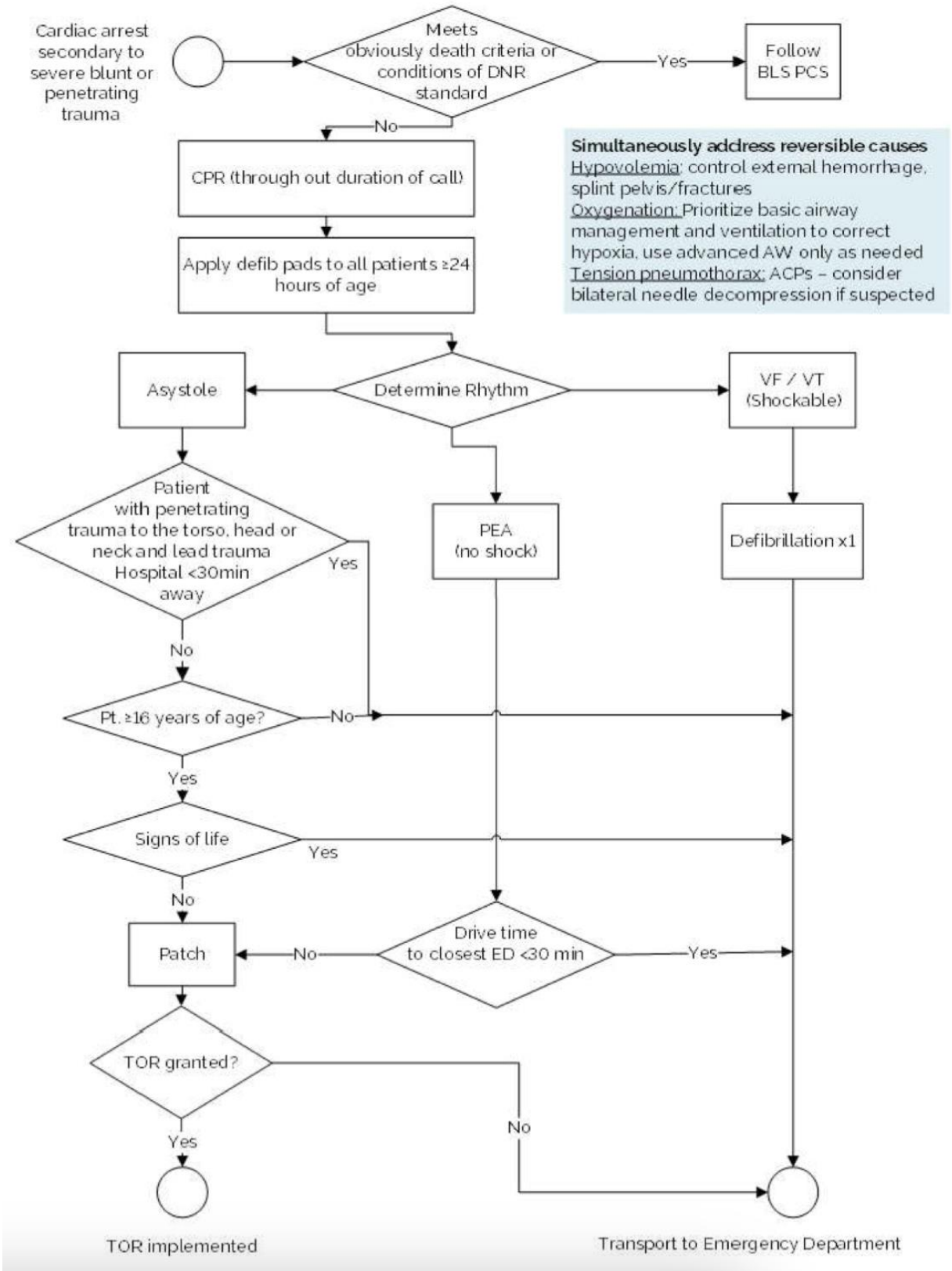
- **NO TOR** if patients with penetrating trauma to the torso or head/neck and Lead Trauma Hospital < 30 min transport time away

Adult Doses

Treatment	Dose	Q	Repeat	Max dose
Manual defibrillation	Max energy ≥8 years older	N/A	N/A	1 dose
Bolus IV (≥12 years older)	20 ml/kg	Reassess every 250 ml	N/A	2,000 ml

Pediatric Doses

Treatment	Dose	Q	Repeat	Max dose
Manual defibrillation **(≥ 24 hours to < 8 years of age)**	2 J/kg	N/A	N/A	1 dose
Bolus IV **(≥2 years and <12years of age)**	20 ml/kg	Reassess every 100 ml	N/A	2,000 ml


Cardiac arrest secondary to severe blunt or penetrating trauma
Meets obviously death criteria or conditions of DNR standard
Yes
Follow BLS PCS
No
CPR (through out duration of call)
Apply defib pads to all patients ≥24 hours of age
Simultaneously address reversible causes
Hypovolemia: control external hemorrhage, splint pelvis/fractures
Oxygenation: Prioritize basic airway management and ventilation to correct hypoxia, use advanced AW only as needed
Tension pneumothorax: ACPs – consider bilateral needle decompression if suspected
Asystole
Determine Rhythm
VF / VT (Shockable)
Patient with penetrating trauma to the torso, head or neck and lead trauma Hospital <30min away
Yes
PEA (no shock)
Defibrillation x1
No
Pt. ≥16 years of age?
No
Yes
Signs of life
Yes
No
Patch
No
Drive time to closest ED <30 min
Yes
TOR granted?
Yes
No
TOR implemented
Transport to Emergency Department

NOTES: Pediatric Joule Settings

Weight	Age	Joules 2J/kg
≥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

Nuchal Cord Management

- Slip over the newborns hand
- If unsuccessful slipping it over the head, try to move below the shoulders

- Perform the somersault maneuver
- The last treatment decision is to clamp and cut the cor

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, delivery 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:

- **≥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.

Mandatory patch for to BHP for authorization to administer 0.9% NaCl fluid bolus to hypotensive patients greater than and equal to 2 years old and to less than 12 years with suspected diabetic ketoacidosis.

Dosing (≥ 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 (≥2 years 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	Vital Sign Parameters
Altered LOA Hypoglycemia **IN Glucagon:** >=4 years old **Dextrose:** • Allergy or sensitivity to Dextrose **Glucagon:** • No Pheochromocytoma • No allergy or sensitivity to glucagon	**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**
D10W IV	0.2 g/kg (2 ml/kg)	25 g (250 ml)	10 min	0.2 g/kg (2 ml/kg)	2 doses
D50W 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

A PCP, 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 ≥ 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 ≥ 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

A PCP, 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 ≥ 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 of 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. ≥ 65 years old for dimenhyDRINATE administration. This may include an initial reduced dose of 25 mg**

The max cumulative dose of DimenHYDRINATE is 50mg.

Prior to IV administration, dilute dimenhyDRINATE (concentration of 50 mg/1 ml) 1:9 with Normal Saline or D5W. If administered IM do not dilute. If a patient has received an antiemetic and has no relief of their nausea & vomiting symptoms after 30 minutes, the alternative antiemetic may be considered.

All doses				
Medication	**Weight**	**Dose**	**Q**	**Max doses**
DimenhyDRINATE IV/IM	≥ 50 kg	25 or50 mg	N/A	2 doses
DimenhyDRINATE IV/IM	25 to 49 kg	25 mg	N/A	1 dose
Ondansetron 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:** ≥10 years to ≤50 years
- **LOA:** Unaltered
- **HR:** N/A
- **RR:** N/A
- **SBP:** N/A
- **Other:** N/A

Contraindications

- **High-velocity trauma**
- **Direct knee trauma**

The maximum number of attempts is 2 per patient.

Traumatic Hemorrhage Medical Directive-Auxiliary

Indications

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

Clinical Parameters

TXA Indications:

- AGE ≥ 16 years
- LOA N/A
- HR N/A
- RR N/A
- SBP N/A
- Other HR ≥ 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 ≥ 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 **IM Moderate Exposure**	2mg	N/A	5 min.	n/a

Adult Dose (≥ 18 years of age)

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

Adult Dose (≥ 18 years of age)

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

Adult Dose (≥ 18 years of age)

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

Adult Dose (≥ 18 years of age)

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

Adult Dose (≥ 18 years of age)

Medication	Initial Dose	Q	Repeat	Max doses
Midazolam **IM Moderate Exposure**	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

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	5g over 15 – 30 min	N/A	N/A	1 dose

Pediatric Doses

Medication	Initial Dose	Q	Repeat	Max doses
Hydroxocobalamin IV	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
Calcium Gluconate (10% solution) Inhalation exposure NEB	100 mg	N/A	N/A	1 dose
Calcium Gluconate (2.5% gel) Skin exposure TOP	N/A	N/A	PRN	N/A
Anaesthetic Eye Drops 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
Anaesthetic Eye Drops 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	960-1000mg	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

- ≥ 18 years old
- Unaltered LOA
- SBP ≥ 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 (≥ 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	960-1000 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:

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

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
Haloperidol SC	0.5-1 mg	1 mg	30 min	Same as initial	2 doses
Ondansetron SC/PO	4 mg	4 mg	N/A	N/A	1 dose
DimenhyDRINATE 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
Glycopyrrolate SC	0.4 mg	0.4 mg	N/A	N/A	1 dose

Adult doses

Medication	Dose	Max single dose	Q	Repeat	Max
Atropine 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

- ≥ 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.

A period of observation is recommended after the administration of any medication if the patient is not transported to ensure adequate response and no unexpected immediate adverse effects } Transport should be considered if there is strong suspicion of reversible causes including but not limited to:

- Complete bowel obstruction with no prior history of same
- New Spinal Cord Compression
- New Superior Vena Cava (SVC) Obstruction
- Airway obstruction
- Suspected new pathologic fracture

If patients do not meet the treat and refer conditions, paramedics should consider consulting BHP, follow the patient refusal standard and document appropriately `

ADDITIONAL NOTES:

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