



Emergency Medical Assistants Licensing Board

British Columbia Provincial Examination Guidelines

Primary Care Paramedic and Emergency Medical Responder

**Ministry of Health
Authored by EMA Licensing Branch
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EMALB Provincial Examination Guidelines + CWMT Study and Review Materials

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Introduction

For the purposes of licensure and licensing examinations, the information contained within this document supersedes all previous applicable protocols and procedures.

Research and development in emergency health services is continuous and these guidelines will be updated to reflect best practice. The most current version of this document is available through the EMA Licensing Branch [website](#).

The Board identifies an EMR candidate as someone who has completed a Board recognized EMR certification program and a PCP candidate as someone who has completed a Board recognized PCP certification program. To find a Board recognized training program click [here](#).

This document covers:

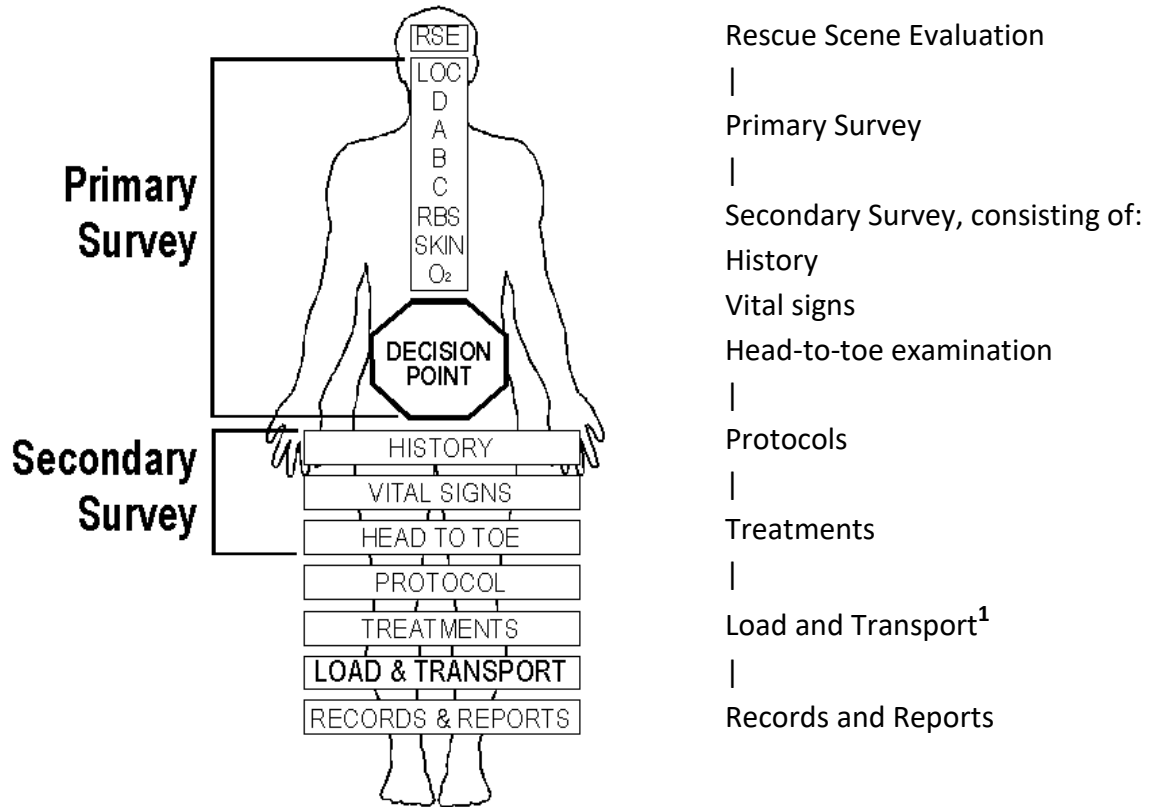
- treatment guidelines for EMR and PCP levels
- examination policies
- examination requirements and scheduling instructions
- medication policies
- licence application instructions

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Scope of Practice (services & endorsements)

Patient Care Skills	EMA-FR	EMR	PCP
Scene assessment	X	X	X
Assessment LOC, skin color, temp, pulse, resp	X	X	X
RBS to attend any life-threatening injuries	X	X	X
Primary and Secondary assessment, physical examination, medical and incident history and vital signs	X	X	X
Cardio pulmonary resuscitation (CPR)	X	X	X
Maintenance of airways and ventilation	X	X	X
use of airway management techniques including oropharyngeal airways, oral suction devices and oxygen-supplemented mask devices to assist ventilation	Endorsement	X	X
Use of automatic or semi-automatic external defibrillator (AED)	Endorsement	X	X
Cervical collar application/spinal immobilization	Endorsement	X	X
Administration of oxygen	Endorsement	X	X
Administration of oral glucose	Endorsement	X	X
Emergency childbirth	Endorsement	X	X
Ventilation using pocket mask and BVM	Endorsement	X	
lifting/loading, extrication/evacuation and transportation		X	X
blood pressure assessment by auscultation and palpation		X	X
emergency fracture management/immobilization		X	X
soft tissue injury treatment		X	X
maintenance of intravenous lines without medications or blood products while transporting persons between health facilities		Endorsement	X
use and interpretation of a pulse oximeter		Endorsement	X
administration of the following oral, sublingual or inhaled medications: anti-anginal, anti-hypoglycemic agent, analgesia, and platelet inhibitors;		Endorsement	X
use and interpretation of a glucometer		Endorsement	X
chest auscultation		Endorsement	X
insertion and maintenance of nasopharyngeal airway		Endorsement	X
administration of the following intravenous, oral, sublingual, subcutaneous, inhaled, intra-muscular or nebulized medications: narcotic antagonist, bronchodilator anti-histaminic, sympathomimetic agent, procoagulant, and anti-hypoglycemic agent;			X
insertion and maintenance of airway devices not requiring visualization of the larynx			X
maintenance of intravenous lines using intermittent infusion devices, including saline locks and IV pumps			X
initiation of peripheral intravenous lines			Endorsement
administration of isotonic crystalloid solutions			Endorsement
endotracheal intubation			Endorsement
electrocardiogram acquisition			Endorsement
initiation and maintenance of non-invasive positive pressure airway devices			Endorsement
administration of the following intravenous, oral, sublingual, subcutaneous, inhaled, intra-muscular or nebulized medications: anti-emetic — anti-nauseant, and vitamins.			Endorsement

Patient Assessment Model



¹This model depicts a generic management approach without consideration for patient condition. Depending upon patient condition (i.e. stable vs unstable) and the ability to provide definitive care, as outlined in protocols, load and transport may be appropriate any time after the “decision point”.

Patient Assessment Model – Guidelines

The Patient Assessment Model consists of seven components, each of which has multiple steps. The following table lists the steps and the purpose of each component.

COMPONENT	STEPS	PURPOSE
Rescue Scene Evaluation	<ul style="list-style-type: none"> • Hazards • Environment • Mechanism of injury • People 	The purpose of the RSE is to ensure that the scene is safe for the crew and patient and to provide information about the nature and extent of the patient's injuries or condition.
Primary Survey	<ul style="list-style-type: none"> • LOC • Spinal Precautions • Airway • Breathing • Circulation • Rapid Body <ul style="list-style-type: none"> • Survey interventions <ul style="list-style-type: none"> ▪ Skin ▪ Oxygen ▪ Airway ▪ Position • Transport Decision 	The purpose of the primary survey is to identify and manage life- and limb-threatening injuries and conditions.
Secondary Survey	<ul style="list-style-type: none"> • History • Vital signs • Head-to-toe examination 	The purpose of the secondary survey is to identify the patient's chief complaint, establish a baseline set of vital signs and gather information about the patient's injuries and condition.
Treatments	<ul style="list-style-type: none"> • Wound Care • Fracture management • Spinal management • Burn management • Management of specific injuries and conditions 	Treatments are first aid procedures that do not require direct physician supervision.
Protocols	<ul style="list-style-type: none"> • Various 	Protocols allow the EMA to perform medical procedures that are normally in the domain of a physician.
Load and Transport	<ul style="list-style-type: none"> • Stretcher • Reassessment • Equipment • Transport mode • Notification 	
Records and Reports	<ul style="list-style-type: none"> • Forms • Reports 	Reports are used to gather or give information regarding the patient's status and treatment. Forms are used to record assessment and treatment of a patient.

Patient Assessment Model - Primary/Initial Survey Assessment Interventions

PRIMARY SURVEY INTERVENTION	INDICATIONS
Cervical spine stabilization	<ul style="list-style-type: none"> • Mechanism of injury in which injury to the head and neck is possible • Obvious injury above the level of the clavicles • Unconscious patient where trauma cannot be reasonably ruled out
Obstructed airway procedures	<ul style="list-style-type: none"> • Absence of respiration • Inability to ventilate the patient
Airway maintenance and suctioning	<ul style="list-style-type: none"> • Decreased level of consciousness (LOC) • Presence of fluids or potential obstructions in upper airway
Ventilating the non-breathing patient	<ul style="list-style-type: none"> • Absence of respirations
Assisting inadequate or failing respirations	<ul style="list-style-type: none"> • Abnormally fast or slow respirations • Distressed respirations • Shallow or labored respirations, especially in the presence of decreasing LOC or cyanosis
Sealing open chest wounds	<ul style="list-style-type: none"> • Open chest wounds
Performing CPR	<ul style="list-style-type: none"> • Absence of carotid pulse
Controlling hemorrhage	<ul style="list-style-type: none"> • Major hemorrhage
Stabilizing fractures	<ul style="list-style-type: none"> • Suspected fractures
Realigning limb fractures	<ul style="list-style-type: none"> • Fractured limbs that are grossly deformed or with no distal pulses
Initiating cooling of burns	<ul style="list-style-type: none"> • Major burns
Oxygen	<ul style="list-style-type: none"> • Altered LOC • Respiratory distress • Pain • Trauma • Evidence of shock (e.g., tachycardia, tachypnea, pallor, cyanosis)
Gradual warming	<ul style="list-style-type: none"> • Hypothermia
Rapid cooling	<ul style="list-style-type: none"> • Hyperthermia

Critical History Questions

MVA

- Location of patient
- Which vehicle was the patient in?
- How many vehicles involved
- Type of vehicle(s)
- Impact speed
- Exterior damage
- Interior damage/Compartment Intrusion
- Type of restraints
- Initial position and condition of patient
- Loss of consciousness
- Condition of other patients – fatality in same vehicle
- Vehicle equipped with airbags – were they deployed

Fall

- Where from
- Height
- Free fall or hit other objects during fall
- Landing surface
- Position of patient at impact – what hit first
- Initial position and condition of patient
- Has the patient moved or been moved since incident?
- Any loss of consciousness
- Cause of fall

Pedestrian Struck

- What hit them – size, weight
- Velocity of vehicle
- What part of the vehicle hit what part of patient?
- Damage to vehicle
- Distance patient thrown
- Initial position and condition of patient
- Has the patient moved or been moved since incident?
- Loss of consciousness
- Condition of vehicle occupants

Shooting

- Type of firearm
- Range
- Angle of shot
- Type of bullet if possible
- Entrance and exit wounds
- Initial position and condition of patient
- Loss of consciousness

Stabbing

- Type of weapon/object
- Size – length and width of weapon
- Type of wound – slashed or stabbed
- Number of wounds
- Other injuries
- Initial position and condition of patient
- Loss of consciousness

Assessing LOC Using AVPU

A	Alert	Patient is awake, talking and should be able to maintain own airway. May need help if there is a c-spine concern and complaining of nausea or has an oral bleed.
V	Verbal	Patient responds to verbal stimulus but is drowsy. May consider placing patient semi-prone, if injuries permit.
P	Pain	Patient responds only to pain stimuli. Must monitor airway closely and intervene, as necessary. Should be semi-prone, injuries permitting.
U	Unresponsive	No response to stimuli. This patient is unable to protect own airway. You must intervene and very closely monitor patient's airway.

Glasgow Coma Scale

Eyes Opening	Best Verbal Response	Best Motor Response
4 - Spontaneously	5 - Oriented	6 - Obeys Commands
3 - To Speech	4 - Confused	5 - Localizes pain
2 - To Pain	3 - Inappropriate Words	4 - Withdraws from Pain
1 - No Response	2 - Incomprehensible Sounds	3 - Flexion (Decorticate) to pain
	1 - No Response	2 - Extension (Decerebrate) to pain
		1 - No Response

Abbreviations

	Female	COPD	Chronic obstructed pulmonary disease
	Male		
↓	Diminished, decreased, lower	CP	Chest Pain
↑	Elevated, increased, upper	CPR	Cardiopulmonary resuscitation
>	Greater than	CSF	Cerebral spinal fluid
<	Less than	CT (CAT)	Computed tomography
=	Equals	CVA	Cerebrovascular accident
≠	Not equal	D ₅ W	Dextrose 5% in water
i, ii, iii	One, two, three	D ₁₀ W	Dextrose 10% in water
∅	None, not present, not found	DNR	Do not resuscitate
abd	Abdomen	DOA	Code 4, Dead on arrival
AED	Automatic external defibrillator	DPU	Discharge planning unit
AE, A/E	Air entry	Dx	Diagnosis
ac	Before meals	ECG, EKG	Electrocardiogram
am	Before noon	ECU	Extended care unit
ANU	Ambulance not used	EEG	Electroencephalograph
AOB	Alcohol on breath	EP	Emergency physician
approx	Approximately	ER, ED	Emergency room, department
ASA	Acetylsalicylic acid, Aspirin	ET	Endotracheal
ASAP	As soon as possible	ETA	Estimated time of arrival
bG	Blood glucose	FR	First responder
bid	Twice a day	Fx, #	Fracture
BM	Bowel movement	GI	Gastrointestinal
BP	Blood pressure	GOA	Gone on arrival
c	With	Gtt	Drop
°C	Degree centigrade	Hb	haemoglobin
C-section	Caesarean section	Hct	Hematocrit
CP	Chest pain	H ₂ O	Water
C/C	Chief complaint	Hg	Chem symbol for Mercury
‰, c/o	Complains of	Hr	hour
Ca	Cancer	Hs	Evening, at bedtime
CABG	Coronary artery bypass graft	Hx	History
CAD	Coronary artery disease	ICN	Intensive care nursery
cath	Catheter	IDDM	Insulin dependent diabetes mellitus
CBC	Complete blood count	IM	Intramuscular
cc	Cubic centimeter	IV	Intravenous
CCU	Cardiac care unit	Kg	Kilogram
CHF	Congestive heart failure	q am	Every morning
CIS	Critical incident stress	QID/qid	Four times per day

CNS	Central nervous system	q1h, q2h	Every hour, every two hours
CO ₂	Carbon dioxide	R, resp	Respirations
L 1	First lumbar vertebrae	RBC	Red blood cells
l, L	Litre	RLQ	Right lower quadrant
lg	Large	RUQ	Right upper quadrant
LLQ	Left lower quadrant	per	through, by
LOC	Level of consciousness	PERL	Pupils, equal, react to light
LUQ	Left upper quadrant	PERLA	Pupils, equal, round, react to light and accommodation
MCG, mcg	Microgram	PO	By mouth, oral
MCI	Multi-casualty incident	post-op	Post operative
mEq/L	Milliequivalents per litre	pre-op	Pre-operative
mg	Milligram	prn	As needed, as required
MI	Myocardial infarction	pt	Patient
ml, mL	Millilitre	Rx	Medications
MO	Mental observation point	R/O	Rule out
MRI	Magnetic resonance imaging	s, w/o	Without
MVA	Motor vehicle accident	SA	Sinoatrial node
NIDDM	Non-insulin dependant diabetes mellitus	SC, sc	Subcutaneous
Nitro	Nitroglycerin	SCN	Special care nursery
NKA	No known allergies	SIDS	Sudden infant death syndrome
NPO	Nothing by mouth	SOB	Shortness of breath
NS, N/S	Normal Saline	SL, sl	Sublingual
NYD	Not yet diagnosed	Stat	Immediately
		SV	Stroke volume
N ₂ O ₂	Nitrous Oxide (Entonox)	Tab	Tablet
O ₂	Oxygen	T-2	Second thoracic vertebrae
OB, OBS	Obstetrics	TIA	Transient ischemic attack
od	Once per day	tid	Three times per day
OD	Overdose	TPR	Temperature, pulse, respiration
OR	Operating room	TKO/TKVO	To keep vein open
OTC	Over the counter	TIA	Transient ischemic attack
U/K	Unknown	TPN	Total parenteral nutrition
P	Pulse	Tx	Treatment
palp	Palpation	Tx	Transmit
PAU	Psychiatric assessment unit	Vag	Vaginal
pc	After meals, after food	Yr	Year

Patient Care Report



BRITISH COLUMBIA

Ministry of Health

EMA LICENSING EVALUATIONS
PATIENT CARE REPORT

PATIENT NAME		AGE	DOCTOR	RESPONSE #						
CHIEF COMPLAINT / DESCRIPTION OF INCIDENT		ATTENDANT NAME		DATE OF EVALUATION (MM / DD / YYYY)						
MECHANISM OF INJURY / HISTORY OF ILLNESS		DRIVER NAME		TIME CALL DISPATCH	_____					
		LEVEL APPLIED FOR		TIME AT SCENE	_____					
RELEVANT PAST MEDICAL HISTORY		TRAINING INSTITUTION		TIME TO HOSPITAL	_____					
		PHYSICAL EXAM		TIME AT HOSPITAL	_____					
MEDICATIONS		STATE OF CONSCIOUSNESS		TIME CLEAR	_____					
ALLERGIES		H & N		_____						
CARE GIVEN		CHEST		_____						
		C.V.S.		_____						
AIRWAY		ABD.		_____						
		BACK		_____						
OXYGEN		EXT.		_____						
		C.N.S.		_____						
PAIN ASSESSMENT		BLOOD LOSS		_____						
FRONT		BACK		PUPILS						
<input type="checkbox"/> CONTROL BLEEDING <input type="checkbox"/> DEBRIS/WOUND <input type="checkbox"/> CPR <input type="checkbox"/> AED <input type="checkbox"/> SPINAL IMMOBILIZATION <input type="checkbox"/> IV THERAPY <input type="checkbox"/> PATIENT COMFORT/ REASSURANCE <input type="checkbox"/> FRACTURE MGMT		<input type="checkbox"/> MASK <input type="checkbox"/> NON-REBREATHER <input type="checkbox"/> BVM <input type="checkbox"/> POCKET MASK <input type="checkbox"/> NASAL CANNULA _____ OXYGEN LPM		R L <input type="checkbox"/> <input type="checkbox"/> EQUAL <input type="checkbox"/> <input type="checkbox"/> REACT <input type="checkbox"/> <input type="checkbox"/> DILAT. <input type="checkbox"/> <input type="checkbox"/> CONST. <input type="checkbox"/> <input type="checkbox"/> RT. LG. <input type="checkbox"/> <input type="checkbox"/> LT. LG. <input type="checkbox"/> <input type="checkbox"/> OTHER						
GCS		VITAL SIGNS		PROTOCOLS						
TIME	E	V	M	TOTAL	PULSE	RESR	SpO ₂	BP	SKIN	
								/		
								/		
								/		
								/		
								/		
								/		
								/		
								/		
ADDITIONAL TREATMENTS AND COMMENTS										

HLTH 1801 2009/10/03

Patient Care Report – Cont.

PATIENT ASSESSMENT GUIDE

RESCUE SCENE EVALUATION

- Personal Protective Equipment
- Environment
- Hazards
- Mechanism of Injury

PRIMARY SURVEY

- LOC
- Delicate Spine
- Airway
- Breathing
- Circulation
- Rapid Body Survey
- O₂

SECONDARY SURVEY

HISTORY

- Chief Complaint
- History of Chief Complaint
- Relevant Medical History
- Medications
- Allergies

VITAL SIGNS

- LOC
- Respiration
- Pulse
- Skin
- BP

HEAD-TO-TOE ASSESSMENT

- Head
- Neck
- Chest
- Breath Sounds
- Bowel Sounds
- Abdomen
- Hips/Pelvis
- Back
- Lower Extremities
- Upper Extremities

HAND-OFF REPORT

- Age
- Chief Complaint
- History of Chief Complaint
- Medical History
- Medications
- Vital Signs
- Allergies
- Relevant Physical Findings
- Treatments/Protocols

FUNCTIONAL INQUIRY

- General
- CNS
- Respiratory
- Cardiac
- GI/GU
- Endocrine
- Muscular/Skeletal

DOCUMENTATION INFORMATION AND COMMON ABBREVIATIONS

GLASGOW COMA SCALE: TOTAL SCORE = /15

Eyes Open	Best Verbal Response	Best Motor Response
4 Spontaneously	5 Oriented	6 Obeys commands
3 To Speech	4 Confused	5 Localizes to pain
2 To Pain	3 Inappropriate words	4 Withdraws from pain
1 No Response	2 Incomprehensible sounds	3 Flexion to pain (decorticate)
	1 No Response	2 Extension to pain (decerebrate)
		1 No Response

A Alert
V Verbal
P Pain
U Unresponsive

PAIN ASSESSMENT

P Position	L Location
Q Quality	O Onset
R Radiation	T Type of pain
S Severity	A Associated/Aggravated symptoms
T Timing	R Relieving/Radiating
	P Precipitating event

MEDICAL ASSESSMENT

S Signs & Symptoms
A Allergies
M Medications
P Previous Hx
L Last Oral Intake
E Events Precipitating

Abdomen	Abd	Left Upper Quadrant	LUQ
Abdomen pain	Abd pn	Less than	<
As needed	prn	Level of Consciousness	LOC
Automatic External Defibrillator	AED	Male	♂
Alcohol	ETOH	Mass Casualty Incident	MCI
Bag-Valve-Mask	BVM	Medications	Med
Basic Life Support	BLS	Motor Vehicle Accident	MVA
Blood Pressure	BP	More than	>
Body Surface Area	BSA	Non-insulin dependent diabetes mellitus	NIDDM
Cardiopulmonary Resuscitation	CPR	Nonbreather mask	NRM
Cardiovascular	CV	Nothing by mouth	NPO
Central Nervous System	CNS	Obstetrical/gynaecological	OB/GYN
Chief Complaint	CC	Oropharyngeal airway	OPA
Chest Pain	CP	Overdose	OD
Complains of	c/o	Oxygen	O ₂
Chronic Obstructive Pulmonary Disease	COPD	Pain	pn
Congestive Heart Failure	CHF	Palpation	Palp
Coronary Artery Disease	CAD	Patient	Pt
Dead on Arrival	DOA	Pulse	P
Decreased	↓	Range of Motion	ROM
Delirium Tremens	DTs	Respirations	R
Ear, Nose, and Throat	ENT	Right Lower Quadrant	RLQ
Equal	=	Right Upper Quadrant	RUQ
Estimated time of arrival	ETA	Rule Out	R/O
Female	♀	Short of Breath	SOB
Foreign body obstruction	FBO	Signs and Symptoms	S/S
Gastrointestinal	GI	Temperature	T
Gunshot Wound	GSW	Transient Ischemic Attack	TIA
History	Hx	Treatment	Tx
Hypertension	HTN	Times	X
Immediately	Stat	Unconscious	unc
Increased	↑	Vital Signs	VS
Insulin Dependent Diabetic Mellitus	IDDM	Year-old	y/o
Left Lower Quadrant	LLQ		

Treatment Section

The intent of the Treatment Section is to provide algorithms for many of the treatments that are carried out on a regular basis where protocols do not normally exist. If you require further information or detail you should refer to the appropriate training manual or references below.

References

[American Heart Association](#)

Brady Emergency Medical Responder – A Skills Approach Canadian Edition 4th Edition

Canadian Red Cross – Emergency Care

Nancy Caroline’s Emergency Care in the Streets Canadian Edition 7th Edition

[The National Occupational Competencies Profile \(NOCP\) for Paramedics](#)

[Emergency Medical Assistants Regulation](#)

Wound Care

INDICATIONS

- Open and closed wounds

IN THE PRIMARY SURVEY

- Expose and examine
- Control major hemorrhage²
- Cover with sterile dressing
- Assess distal circulation^{3 4}
- Continue with assessment and treatment

IN THE TREATMENT COMPONENT

- Bandage major wounds (if not already done)⁵
- Clean and dress minor wounds
- Apply cold if required⁶
- Elevate if appropriate

² Methods of hemorrhage control, in order of preference, include:

Direct pressure

Positioning the part (elevation of the injured part). Should be done only if it will not aggravate other injuries or conditions.

Positioning the patient (at rest and supine if other injuries and conditions permit)

Tourniquet (note time and do not release once applied)

³ Absence of distal circulation may indicate a limb-threatening injury or condition. Consider managing the patient as unstable and initiating rapid transport. Realign grossly deformed limbs to the anatomical position only once if needed to facilitate transport attempt realignment to anatomical position once if limb is found to be pulseless

⁴ Cold may be applied if the distal circulation is not impaired. Cold may be applied earlier (i.e. at the end of the primary survey) provided the attendant has checked and compared the circulation in the injured limb with the circulation in the uninjured limb.

⁵ Embedded objects should be stabilized in place. Immobilize limbs if there are large wounds or wounds over joints.

Preservation of Amputated Parts

When a part of the body is completely avulsed (torn off) or amputated (cut off) it is important to try and preserve the amputated part in optimal condition to maximize the chances of successful reattachment. Once the patient's injuries have been stabilized, turn your attention to the amputated part, which will also require careful care, as outline below:

Procedure

- 1) Rinse the amputated part with cool sterile water to remove any gross contaminants/debris
- 2) Wrap the part loosely in saline-moistened sterile gauze.
- 3) Place the amputated part inside a plastic bag and keep it cool in a protective container.
- 4) Transport with the patient.

Key Points

- 1) Do not warm an amputated part.
- 2) Never place the part in water.
- 3) Never place the part directly on ice.
- 4) Never use dry ice to cool the part.

Fracture Management

INDICATIONS

- Suspected limb
- Joint fractures
- Dislocations
- Severe sprains

IN THE PRIMARY SURVEY

- Expose and examine
- Control major hemorrhage
- Stabilize fractured limb(s)
- Check distal pulse(s)⁶
- Realign grossly deformed or pulseless limb(s)⁷

IN THE PROTOCOL COMPONENT

- Analgesia (Entonox) if appropriate

IN THE TREATMENT COMPONENT

- Check distal circulation, sensation and function⁷
- Apply cold
- Provide pain relief prior to movement
- Apply traction if appropriate
- Realign grossly angulated long-bone fractures if appropriate
- Immobilize the joints above and below the injury site⁸
- Reassess distal circulation, sensation and function⁷
- Reapply cold if appropriate⁶
- Elevate if appropriate

⁶ Cold may be applied if the distal circulation is not impaired. Cold may be applied earlier (i.e., at the end of the primary survey) provided the attendant has checked and compared the circulation in the injured limb with the circulation in the uninjured limb.

⁷ Absence of distal circulation may indicate a limb-threatening injury or condition. Manage the patient as unstable and initiate rapid transport if distal circulation cannot be restored.

⁸ Commercially available splints and/or padded wooden splints or splint anatomically as appropriate.

Fracture Management – Traction Splint

INDICATIONS

- Suspected mid-shaft femur fractures.

PROCEDURE

1. Assess distal circulation, sensation, and function.
2. Apply cold, if appropriate, ice on for 10 minutes, off for 5.
3. Give analgesia if not contraindicated.
4. Ensure that patient is supine with the injured leg in line with the body.
5. Maintain manual stabilization after movement and reassess distal pulse
6. Place splint beside injured leg.
7. Secure thigh strap/bandage
8. Apply ankle harness above the malleoli.
9. Apply traction: (once traction is applied, do NOT release traction)
 - a. Closed, mid-shaft fractures: 10% of patient's body weight to a maximum of 15 lbs. (7 kg).
 - b. Open, mid-shaft fracture: Maximum 5lbs.
10. Reassess distal pulse
11. Ensure adequate padding.
12. Stabilize limb and splint by applying three elasticized straps.
13. Reassess distal circulation, sensation, and function.
14. With each movement/reassessment of ABC's or vitals, traction should be reassessed and corrected if necessary.

Pelvis binding

The important principle is that the pelvis should be stabilized prior to transport. Support the pelvic area by applying three overlapping broad triangular bandages around the pelvis. The top of the superior bandage should be just inferior to the iliac crests. Tie the bandages tightly enough to support the pelvis but not cause pain. Do not roll the patient when applying the bandages. Use a commercial pelvic binder if available, it offers ease / speed of application and is effective at compressing the intra-pelvic space.

Hip Dislocation/Fracture

Management

A patient with a hip dislocation/fracture is considered to have a limb-threatening injury and is in the Rapid Transport Category.

Quickly support the injured limb using helpers, rolled blankets, or pillows and ties.

Move the patient onto a firm, blanketed stretcher or spinal device. Secure the patient to the stretcher or spinal device to eliminate motion in the affected hip. Early medical reduction of this dislocation is essential to avoid serious long-term complications.

Conduct any remainder of the secondary survey en route to medical aid. Maintain a regular check of the vital signs, the patient's general condition, and the state of distal pulses and neurological function in the affected limb. If a dislocation is suspected and if the hip spontaneously reduces during treatment or transportation, notify medical oversight.

Spinal Management

INDICATIONS

- Follow the Nexus Criteria

IN THE PRIMARY SURVEY

- Manually stabilize the head and neck

IN THE TREATMENT COMPONENT

- Apply hard collar
- Place patient on a spinal immobilization device
- (If required) Loosen hard collar and align head and neck to neutral position
- (If required) Re-apply hard collar
- Secure patient's body to spinal immobilization device if appropriate
- Raise stretcher head to 30 degrees

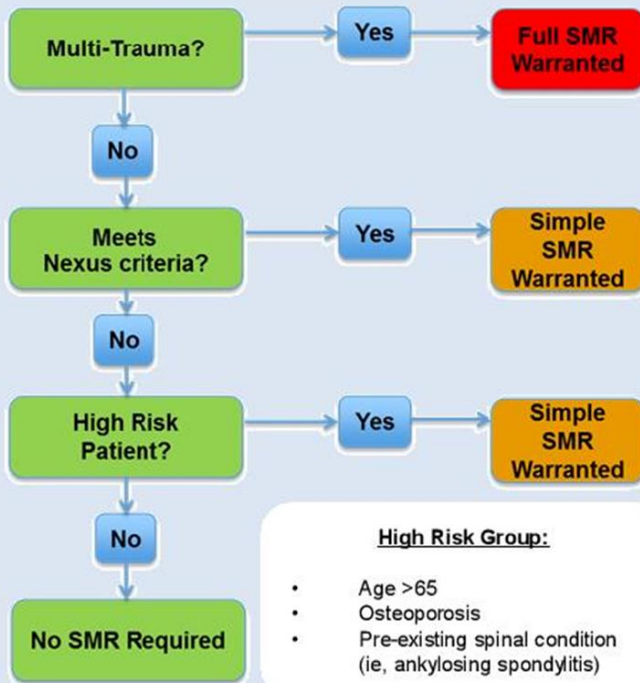
TRAUMATIC BRAIN INJURIES

Any patient with head trauma and any altered level of consciousness, should be suspected of having a traumatic brain injury.

Minimize scene time if possible

- Ensure adequate oxygenation (SpO₂ > 95%).
- If the patient is having difficulty maintaining respirations, assist with ventilations keeping the SpO₂ at > 95%.
- Maintain a blood pressure of > 120mmHg systolic
- Maintain normal blood sugar levels (4.0-8.0 mmol/L)
- IV – TKVO if systolic BP is > 120mmHg.

Adult Cervical SMR Decision Matrix Patients Aged 16 - 65



Simple SMR: Cervical collar on – head not taped; patient on mattress not clamshell; head of stretcher up 30° only if head injured

Multi-trauma: more than one simultaneous injury, such as multiple bone fractures, major lacerations and damage to internal organs or major blood vessels.

Modified NEXUS

1. Is there midline tenderness?
2. Is there an altered LOC?
 - Must be alert and oriented x 3 (or 4)
3. Are there new focal neurological deficits?
4. Are they intoxicated?
 - Judgement and pain sensation must be intact
5. Is there a major distracting injury?
 - Significant enough to interfere with their ability to assess pain response when palpating spine

No to ALL FIVE questions – SMR is not warranted.

Thoracolumbar Injuries

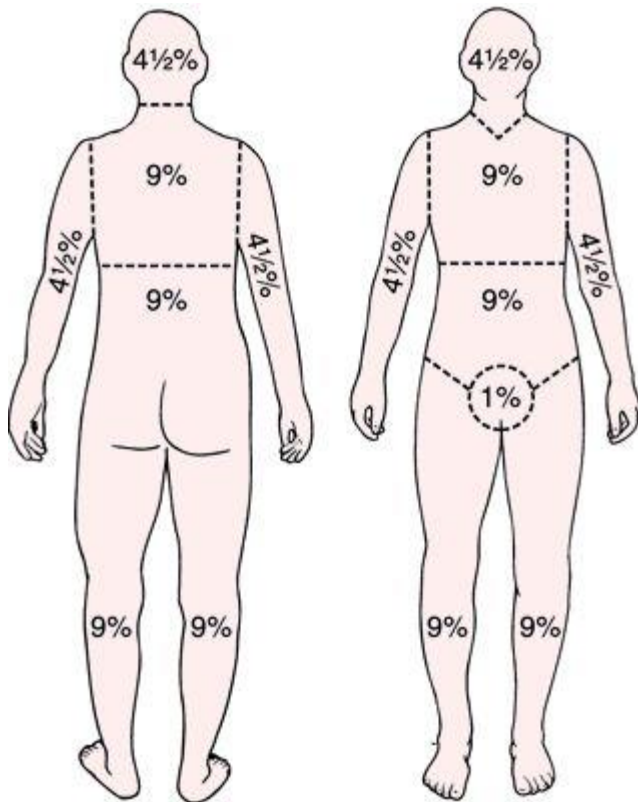
If the patient does not require SMR as per NEXUS criteria, but has any of the following findings, do not sit the patient up or raise the head of the stretcher on the assumption that T/L spine injuries may be present:

- Dangerous mechanism of injury
- Fall from height >3m
- Axial load to head or base of spine
- High speed MVC (>100kph)
- Rollover MVC
- Pre-existing spinal pathology
- New back deformity, bruising, or bony midline tenderness on logroll

Burn Management

Burns can come from a variety of sources such as hot water (scalds) and fire. It is known that applying ice directly to a burn can cause tissue ischemia. The 2015 ILCOR systematic review of the evidence for cooling of burns evaluated agents that were cool or cold, but not frozen. Cooling was found to reduce risk of injury and depth of injury. Cool thermal burns with cool or cold potable water as soon as possible. If cool or cold water is not available, a clean cool or cold, but not freezing, compress can be useful as a substitute for cooling thermal burns. Care should be taken to monitor for hypothermia when cooling large burns. This is particularly important in children, who have a larger body surface area for their weight than adults have.

Rule of Nine's



INDICATIONS

- All burn injuries

IN THE PRIMARY SURVEY

- Expose and examine
- Initiate cooling⁹
- High-flow oxygen
- Calculate BSA

IN THE TREATMENT COMPONENT

- Dress wounds¹⁰
- Use pain control measures (e.g. cold, Analgesia {Entonox} if appropriate)¹¹

⁹ Cool major burns for a total of 2 minutes on scene, transport and continue cooling enroute.

¹⁰ After cooling is complete, cover wounds with dry, sterile burn dressings

¹¹ Cold may be applied if the distal circulation is not impaired. Cold may be applied earlier (i.e. at the end of the primary survey), provided the attendant has checked and compared the circulation in the injured limb with the circulation in the uninjured limb

Hypothermia

INDICATIONS

- Suspected hypothermia because of mechanism of injury, history, presentation of the patient.

IN THE PRIMARY SURVEY

- Assess and maintain the ABCs as necessary
- Ventilate the non-breathing, severely hypothermic patient at a rate of 8 - 10 per minute
- Take up to 30-45 seconds to determine pulselessness in the severely hypothermic patient.
- Remove wet and cold clothing and cover with blankets or dry clothing
- Oxygen¹²
- Take temperature if appropriate
- In the event of cardiac arrest apply AED and analyze, defibrillate up to three times if indicated, continue with CPR and rapid transport to the hospital. (After three defibrillations, do not pause CPR for analyzing or shocks)

IN THE TREATMENT COMPONENT

Mild hypothermia (>30°C and <35°C) - Actively rewarm patient:

- Mild activity (if appropriate)
- Preheat the interior of ambulance to 30°C
- Use hot packs wrapped in towels
- Warm blankets

Severe hypothermia (<30°C) - Do not actively rewarm patient

- Insulate patient to prevent further heat loss
- Heat ambulance to 30°C
- Avoid rough handling

¹² Administer oxygen using caution in severe hypothermia regarding its potential cooling effects.

CVA – Stroke – Flowchart



- FINDINGS IN THE STABLE PATIENT**
- Alert and oriented
 - Clear airway, adequate breathing
 - Strong regular radial pulse
 - Warm, dry skin

NOTES:
If patient experienced a TIA that has resolved itself, may be considered stable

- LOC
- D
- A
- B
- C
- RBS
- SKIN
- O2

- FINDINGS IN THE UNSTABLE PATIENT**
- Any neurological deficits
 - Altered LOC or unconscious
 - Difficulty maintaining airway
 - Shortness of breath, noisy or absent respirations
 - Weak, rapid or absent radial pulse

- CRITICAL INTERVENTIONS**
- AVPU
 - Assess and manage ABC's
 - Position of patient
 - Accurate recognition, and timely management and transport of a possible stroke patient
 - Blood glucose check



STABLE

UNSTABLE

Secondary Survey

- History
- Vital Signs
- Head to toe

Transport/notify hospital

Monitor vital signs

Transport

Notify hospital

Secondary Survey

- History
- Vital Signs
- Head to toe
- Monitor vital signs



CVA – Stroke – Continued

As soon as possible utilize the **FAST-VAN** pre-hospital stroke tool.

Face – Right droop? Left droop?

Arm – Right weak? Left weak?

Speech – Slurred

Time - < 6 hours or awoke with symptoms

- If “Yes” to one or more above and < 6 hours or awoke with symptoms, proceed with “VAN”
- If “NO” transport to nearest hospital

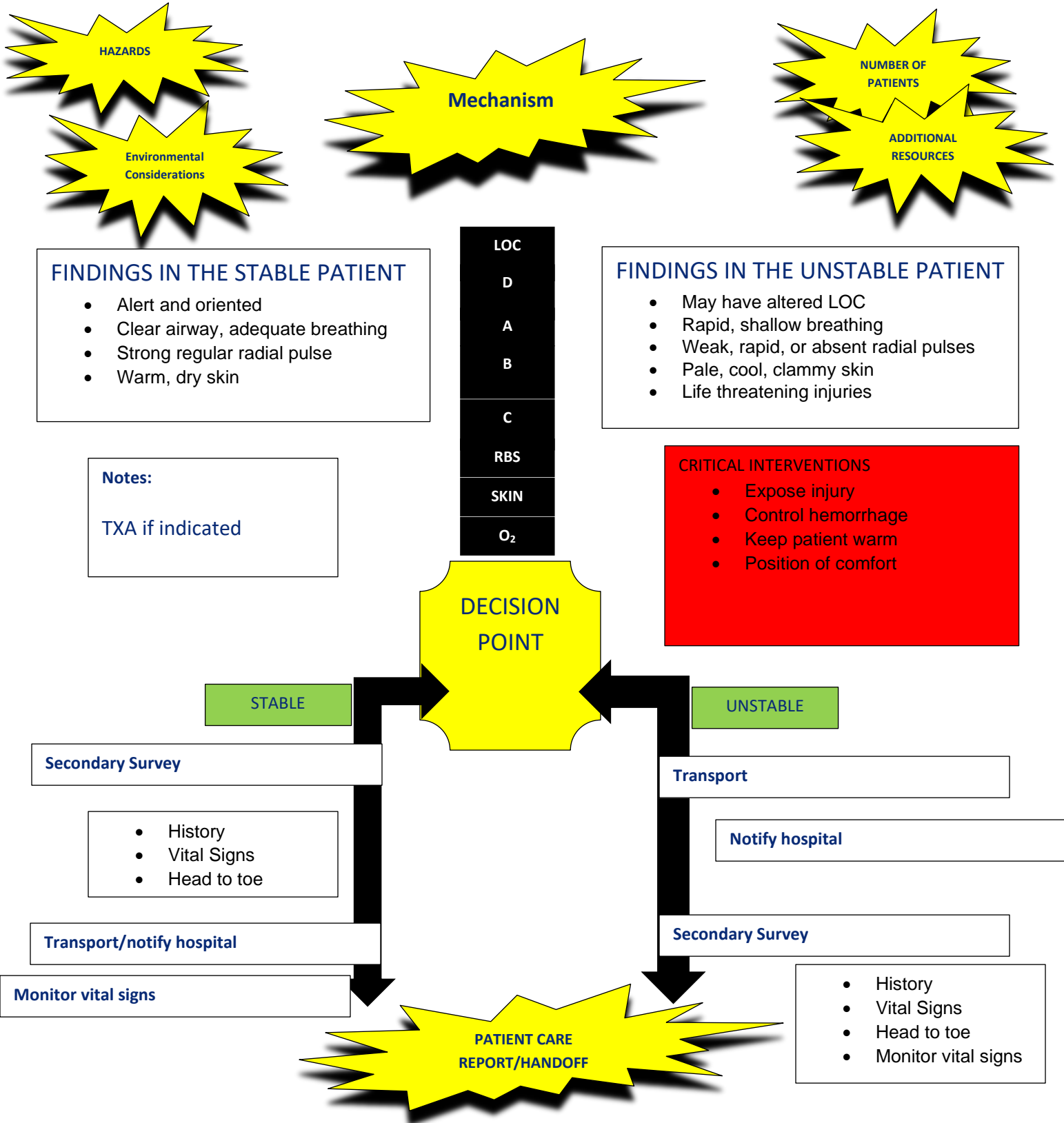
Vision – Right gaze? Left gaze?

Aphasia – Naming difficulties

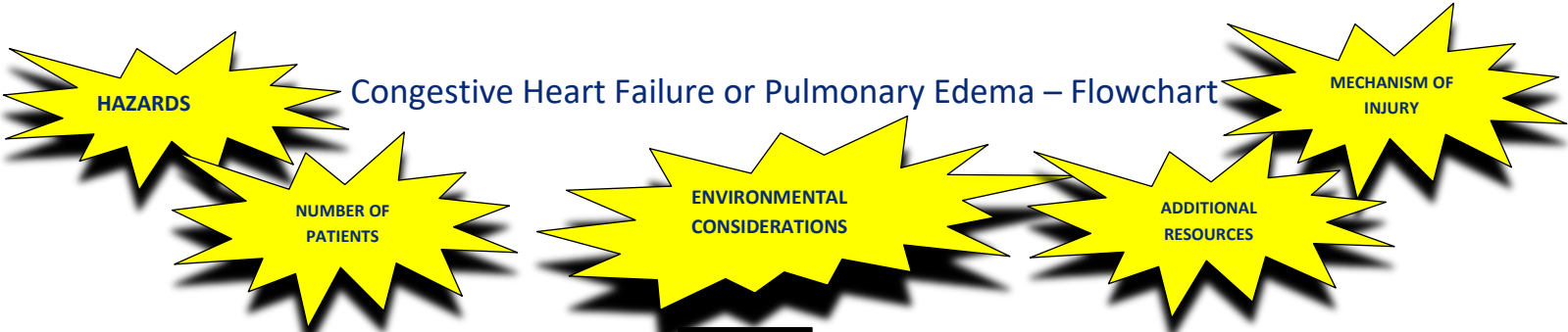
Neglect – Ignoring left body?

- One or more “VAN” signs notify receiving hospital with possible large vessel occlusion.

Abdominal Injuries - Flowchart



Congestive Heart Failure or Pulmonary Edema – Flowchart



- FINDINGS IN THE STABLE PATIENT**
- Conscious
 - Able to maintain airway
 - Mild, respiration distress
 - Strong, regular radial pulse
 - Warm, dry skin

LOC
D
A
B
C
RBS
SKIN
O ₂

- FINDINGS IN THE UNSTABLE PATIENT**
- Altered LOC or unconscious
 - Difficulty maintaining airway
 - Respiration distress
 - Accessory muscle use
 - Noisy respirations
 - Weak, rapid or absent radial pulse
 - Peripheral edema
 - Cool, clammy skin

- CRITICAL INTERVENTIONS**
- Position of comfort
 - Assist ventilations if altered LOC



STABLE

UNSTABLE

Secondary Survey

- History
- Vital Signs
- Head to toe

Transport/notify hospital

Transport

Notify hospital

Secondary Survey

- History
- Vital Signs
- Head to toe
- Monitor vital signs

Monitor vital signs



Chest Trauma – Flowchart

HAZARDS

NUMBER OF PATIENTS

ENVIRONMENTAL CONSIDERATIONS

MECHANISM OF INJURY

ADDITIONAL RESOURCES

- FINDINGS IN THE STABLE PATIENT**
- Alert, orientated
 - No accessory muscle use
 - Strong radial pulse
 - Warm, dry skin
 - Minor chest wound

LOC
D
A
B
C
RBS
SKIN
O ₂

- FINDINGS IN THE UNSTABLE PATIENT**
- May have altered LOC
 - Difficulty maintaining airway
 - Accessory muscle use
 - Weak, rapid or absent radial pulse
 - Life threatening injuries
 - Pale, cool and clammy skin
 - Major chest wound

NOTES:
Open Chest: use a vented occlusive dressing or commercial chest seal
Flail Chest: use abd. pad large enough to cover flail segment, upon full inspiration, no larger, taped firmly enough to stop paradoxical movement. Large adhesive taped using cross action to fully cover pad.

- CRITICAL INTERVENTIONS**
- Seal open chest wound
 - **MANUALLY** Stabilize flail chest
 - Position patient ASAP
 - Assist ventilation if necessary
 - Control any bleeding

DECISION POINT

STABLE

UNSTABLE

Secondary Survey

- History
- Vital Signs
- Head to toe

Transport/notify hospital

Monitor vital signs

Transport

Notify hospital

Secondary Survey

- History
- Vital Signs
- Head to toe
- Monitor vital signs

PATIENT CARE REPORT/HANDOFF

Electrical Contact – Flowchart



- FINDINGS IN THE STABLE PATIENT**
- Alert, orientated
 - Able to maintain airway
 - Strong, regular radial pulse
 - Minor burns

- FINDINGS IN THE UNSTABLE PATIENT**
- May have altered LOC
 - Cardiac Arrest
 - Difficulty maintaining airway
 - Respirations may require assistance
 - Irregular, or absent radial pulse
 - Muscle spasms
 - Major burns

- LOC
- D
- A
- B
- C
- RBS
- SKIN
- O₂

NOTES:
Investigate amperage/source of electrical contact

- CRITICAL INTERVENTIONS**
- Expose injuries
 - Cool burns ASAP



STABLE

UNSTABLE

Secondary Survey

Transport

- History
- Vital Signs
- Head to toe

Notify hospital

Transport/notify hospital

Secondary Survey

Monitor vital signs



- History
- Vital Signs
- Head to toe
- Monitor vital signs

Heat Exhaustion/ Heatstroke – Flowchart



- LOC
- D
- A
- B
- C
- RBS
- SKIN
- O₂

- FINDINGS IN THE STABLE PATIENT**
- Conscious, may be agitated or confused
 - Able to maintain airway, breathing
 - Strong radial pulse
 - Warm, pink, or sweating skin

- FINDINGS IN THE UNSTABLE PATIENT**
- Fainting spells or unconsciousness
 - Irregular or panting respirations
 - Weak radial pulse
 - Hot, dry or ashen skin

NOTES:
All suspected heatstroke patients are treated as unstable

- CRITICAL INTERVENTIONS**
- Move patient to cool area if appropriate
 - Remove clothing
 - Cool rapidly



STABLE

UNSTABLE

Secondary Survey

- History
- Vital Signs
- Head to toe

Transport/notify hospital

Monitor vital signs

Transport

Notify hospital

Secondary Survey

- History
- Vital Signs
- Head to toe
- Monitor vital signs



Drowning/Near Drowning – Flowchart

HAZARDS

MECHANISM OF INJURY

NUMBER OF PATIENTS

ENVIRONMENTAL CONSIDERATIONS

ADDITIONAL RESOURCES

FINDINGS IN THE STABLE PATIENT

- Conscious, may be confused
- Stable C-spine
- Able to maintain airway and breathing
- Strong radial pulse

FINDINGS IN THE UNSTABLE PATIENT

- Altered LOC or unconscious
- Possible C-spine injury
- Difficulty maintaining airway
- Shortness of breath, noisy or absent respirations
- Weak, rapid or absent radial pulse
- Cyanosis, seizure activity, chest pain

LOC

D

A

B

C

RBS

SKIN

O₂

CRITICAL INTERVENTIONS

- If respirations are inadequate or below 10, assist with BVM asap
- Non-humidified oxygen
- Avoid rough handling
- Maintain body temperature
- Remove wet clothing
- Provide blanket

DECISION POINT

STABLE

UNSTABLE

Secondary Survey

- History
- Vital Signs
- Head to toe

Transport/notify hospital

Monitor vital signs

Transport

Notify hospital

Secondary Survey

- History
- Vital Signs
- Head to toe
- Monitor vital signs

PATIENT CARE REPORT/HANDOFF

Treatment Protocols

IV Procedures

IV Initiation

INDICATIONS

In pre-hospital care, the primary indications for IV therapy are to:

- Replace fluid and electrolytes due to hypovolemia and burns
- Administer medications

Please refer to the relevant training level for specific indications within a protocol.

PROCEDURE

1. Gather and prepare equipment:
 - a. Select and inspect the catheter device
 - b. Select and inspect the IV solution and administration set
 - c. Prime the IV tubing
2. Choose and prepare an appropriate site
3. Initiate IV
4. Connect IV tubing and infuse solution
5. Calculate and maintain an appropriate flow rate
6. Secure the IV

IV Maintenance

1. Ensure that the appropriate solution is running¹³.
2. Calculate and maintain the appropriate flow rate.
3. Monitor flow rate and amount of solution.
4. Reassess patient condition and IV on a regular basis (i.e. q 5–15 min):
 - a. Reassess ABCs and injury sites.
 - b. Reassess vital signs.
 - c. Inspect IV site, tubing and solution bag.
 - d. Observe for complications and take appropriate measures as necessary.
 - e. Maintain appropriate flow rate.
 - f. Change solution bag if required.
5. Intravenous solutions that can be maintained at normal TKVO rates for the purpose of inter-facility transfers, include:
 - a. Normal Saline
 - b. 2/3 – 1/3
 - c. Ringers Lactate
 - d. D₅W

IV Maintenance Rate Calculation

Some protocols may contain a reference to a maintenance rate. This maintenance rate is approximately 75 mL/hr. Two common administration sets are used: 10 gtts/mL and 60 gtts/mL.

To calculate flow rates, the following formula is used:

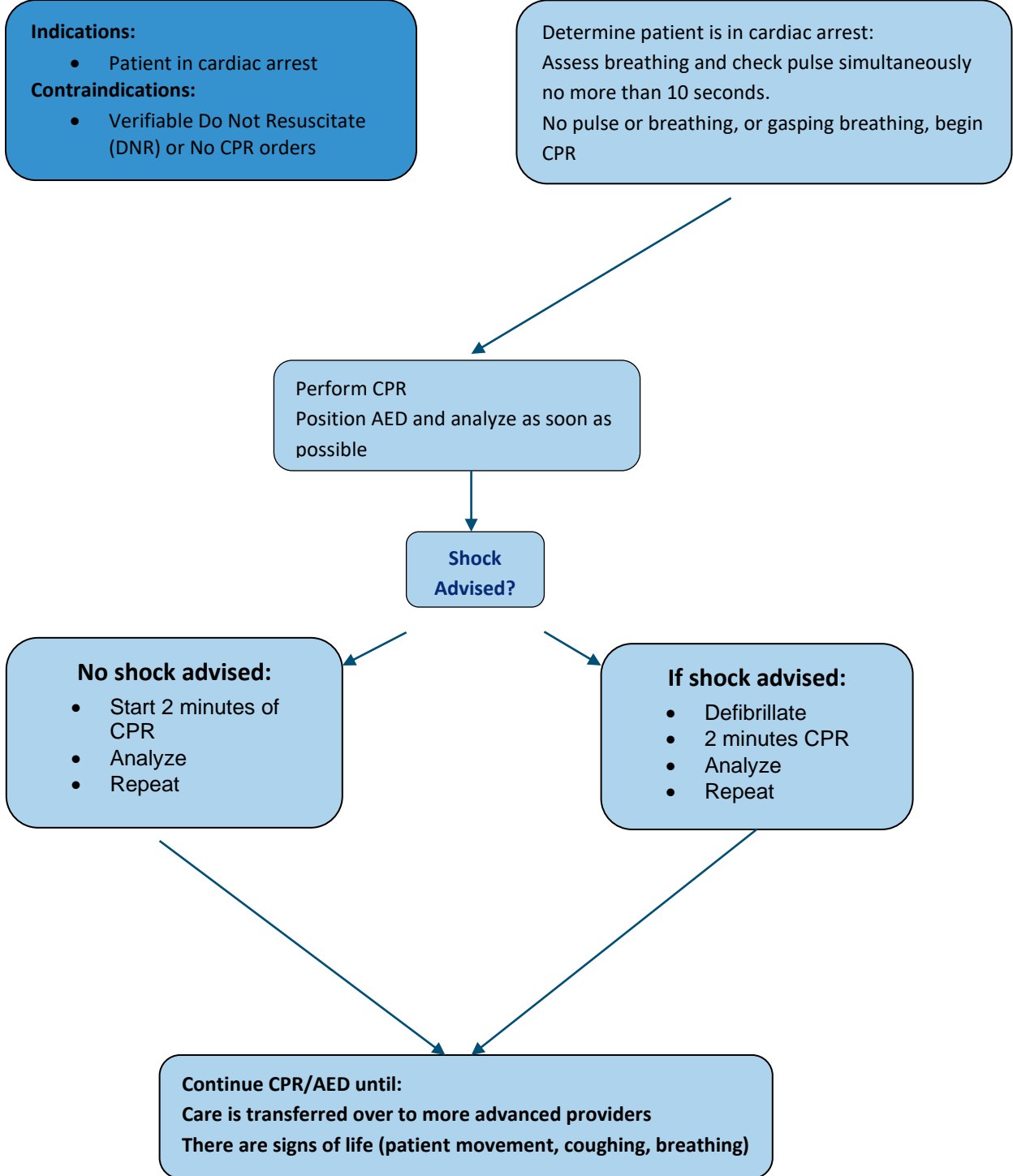
$$\text{gtts per minute} = \frac{\text{volume to be infused} \times \text{set rate}}{\text{time in minutes}}$$

Examples:

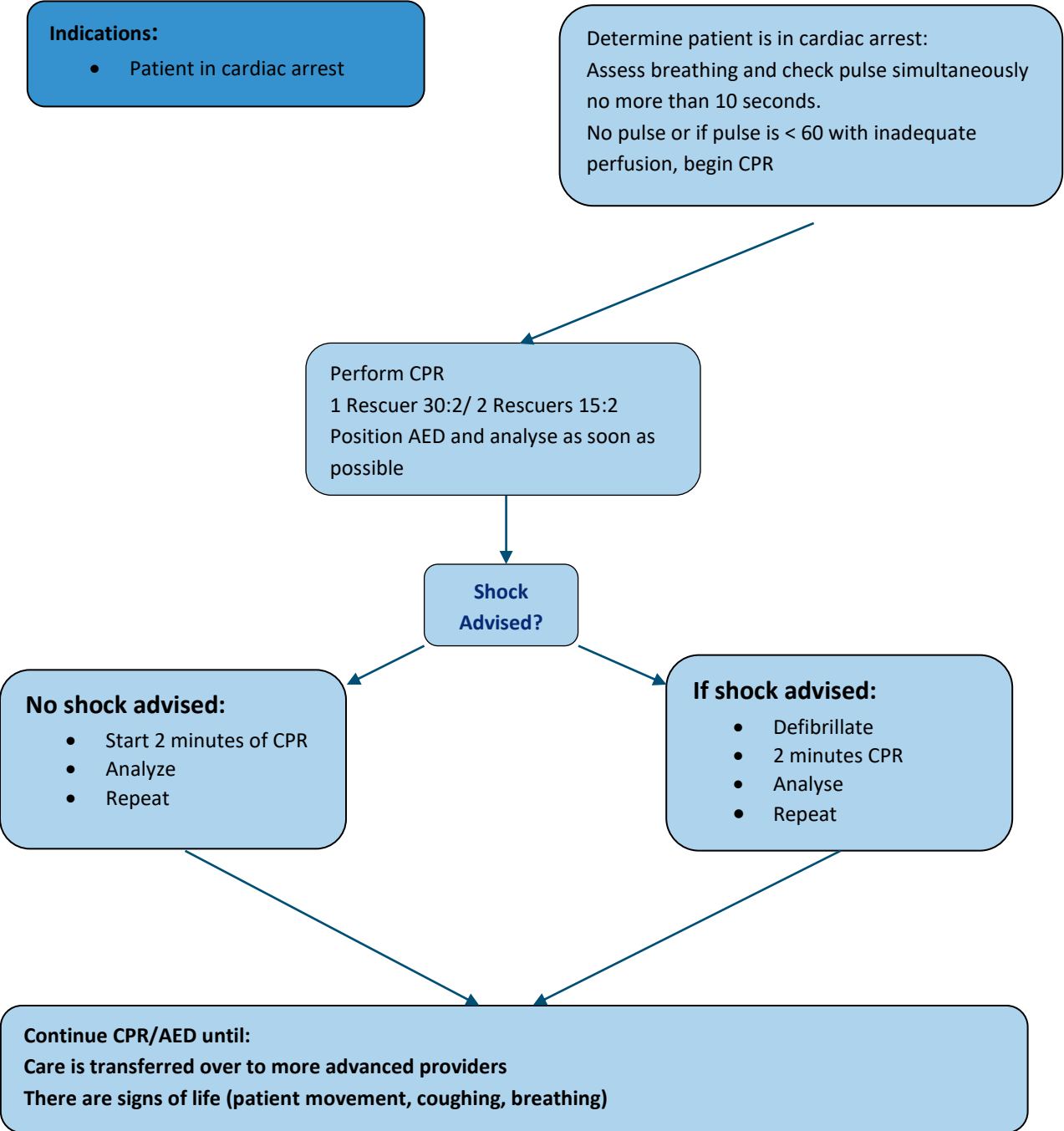
- To infuse 500 ml NS over 12 hours using a macro-drip set (10 gtts/mL):
$$\frac{500 \text{ mL} \times 10 \text{ gtts/min.}}{12 \text{ hours} \times 60 \text{ min.}} = \frac{5000}{720} = 7 \text{ gtts/min}$$
- To infuse 25 mL 5% D₁₀W in 60 minutes using a micro-drip set (60 gtts/mL):
$$\frac{25 \text{ mL} \times 60 \text{ gtts/min.}}{60 \text{ min.}} = \frac{1500}{60} = 25 \text{ gtts/min.}$$

¹³ EMR, PCP and PCP - IV attendants are not to manage patients in cases where medications or other additives outside of their scope of practice have been introduced to the IV solution.

Adult CPR/AED



Child Infant CPR/AED



CPR/AED

Basic concepts:

- Early CPR is an essential component to successful outcome from cardiac arrest.
- CPR should be provided with as few interruptions as possible (keep interruptions to less than 10 seconds).
- Change operators every 2 minutes (where possible) to maintain maximum efficiency.
- No pulse checks after your initial assessment, until directed by advanced care providers or the patient begins to move (e.g. spontaneous breaths, cough, eyelid movement, vocalization).
- CPR is more effective while you are stationary (i.e. trying to move the patient while performing CPR results in a deterioration of effective CPR).
- Move a victim early in your management while performing CPR only if the victim is in a dangerous environment or if you believe you cannot perform CPR effectively because of the victim's position or location.
- Early defibrillation is an essential component to successful outcome from cardiac arrhythmias that are responsive to defibrillation.
- The concepts of early CPR and early defibrillation should coexist, and one should not impede the other.
- Complete recoil after each compression.
- Avoid hyperventilation.

Adult CPR/AED Basics:

- Immediately activate the emergency response system (if appropriate) and get an AED (if available).
- Optimum chest compression rate is 100 -120 per minute with a depth of 5.0 to 6.0 cm in a normal adult (adjust to 1/3 to ½ the chest diameter for smaller and bigger patients).
- Ratio is 30:2 (one or two rescuers).
- Apply and use the AED as soon as possible.
- Single shocks – resume CPR immediately following delivery of a shock.
- No Shock Advised – resume CPR immediately.
- Continue resuscitation efforts on scene as long as one is capable (or, if AED is employed, until the patient recovers, advanced care providers take over (e.g. BCAS, physician) or you are presented with a valid “Do not Resuscitate” or No CPR order.
- Initiate a call to medical oversight after 15 minutes of high-quality CPR to determine transport or other treatments.

Infant/Child CPR/AED Basics

- Due to the size of an infant's head in relation to its body, use a pad (if available) under the shoulders to facilitate the head tilt-chin-lift maneuver.
- Effective ventilation/oxygenation is very important for optimal CPR.
- Assess for pulse using the brachial rather than the carotid artery.
- If alone, immediately start CPR for 5 cycles (about 2 minutes) before activating the emergency response system (if appropriate) and applying the AED (NOTE: for a *witnessed sudden collapse* – alone or not, immediately activate the emergency response system [if appropriate] and get an AED [if available]).
- Start CPR if there is no pulse or if the heart rate is less than 60 beats per minute with signs of poor perfusion (e.g. pale skin color or severe mottling, cyanosis, usually accompanied by a decreased or falling level of consciousness and extremely unwell or toxic appearance, often with a history suggestive of respiratory illness or sepsis).
- Optimum chest compression rate is 100 - 120 per minute with a depth of 1/3 to ½ the chest diameter.
- Ratio is 30:2 for one rescuer and 15:2 for two rescuers.
- Single shocks – resume CPR immediately following delivery of a shock.
- No Shock Advised – resume CPR immediately.
- For a child 0 - 8 years of age, switch to child AED pads (if available). If not available, you may use the adult pads and deliver the adult dose.
- If the defibrillation pads, when placed in the normal anterior/lateral chest position, are within 2.5 cm (one inch) of each other, they may need to be shifted to an anterior/posterior configuration.

Child (1 year of age to puberty) Sudden Cardiac Arrest

- Most cardiac arrests in children are not due to sudden rhythm disturbances. On rare occasions a child is in ventricular fibrillation. Specifically, cases with a history of previous cardiac problems or a sharp blow to the precordial area followed by sudden collapse (commotio cordis).

Asphyxial arrest

- Asphyxial arrest is due to hypoxia. Causes may include overdose, hanging, airway obstruction, smoke inhalation and drowning. If alone with an AED, give 5 cycles of CPR (about 2 minutes) before applying the AED. If two rescuers: apply the AED while providing one-person CPR for 5 cycles (about 2 minutes) then analyze.

Advanced Airway considerations

- For all age categories, when assisting an advanced care paramedic with an advanced airway in place, the ventilation rate is 1 breath every 6 seconds interspersed between compressions (i.e. do not pause chest compressions to provide breaths).
- It is acceptable to perform continuous compressions when an advanced airway is in place.

Treatable causes of cardiac arrest and transporting

- CPR should be continued until ROSC is achieved, further efforts are deemed futile, or the rescuers can no longer continue resuscitation due to fatigue or scene hazard.
- The main principle is that the decision to transport is multi-factorial, relies on available history and physical examination to give clues about reversible causes, and consultation with medical oversight.
- The exception to the above is consideration of transport with CPR in progress at the 15 min mark where a consultation with medical oversight should occur to discuss any suspected reversible cause. If that consultation results in an apparent reversible cause, then transport can be considered. Such causes include but are not limited to:
 - Hypothermia
 - Cardiac tamponade
 - Pulmonary embolus
 - Hypovolemia (Trauma, GI Bleed, ruptured AAA, etc.)
 - Poisoning

Suctioning

- Suction should be applied for 10-15 seconds in the adult
- Less than 5 seconds in the pediatric patient.

Foreign Body Airway Obstruction

- Stabilize head and neck, if necessary.
- Assess Level of Consciousness (AVPU scale)
- Assess & manage ABC's as required
- Suction, AED and BVM with OPA ready.

Unwitnessed Unconscious FBAO

If respirations absent:

- Attempt one ventilation, if no air entry or air blows back, reposition head and attempt ventilation, if no air entry, begin chest compressions.
- Continue cycle of 30 compressions to 2 vents inspecting for object in mouth prior to ventilating.

Witness Conscious to Unconscious FBAO

- Partial obstruction, have patient cough forcefully
- Full obstruction, although chest thrusts, back slaps, and abdominal thrusts are feasible and effective for relieving severe foreign body airway obstruction in conscious (responsive) adults and children >1 year of age, for simplicity in training it is recommended that abdominal thrusts be applied in rapid sequence until the obstruction is relieved.
- An infant, deliver repeated cycles of 5 back blows followed by 5 chest compressions until the object is expelled
- If abdominal thrusts are not effective, consider chest thrusts
- Patient collapses, start CPR with chest compressions (do not perform a pulse check)
- After 30 compressions, open the airway
- Do not perform blind finger sweeps
- Attempt to give 2 breaths and continue with cycles of chest compressions, checking airway.

Complete RBS

Transport

Cardiac Chest Pain PCP/EMR

INDICATIONS

- Patients whose presentation is suggestive of cardiac chest pain, who have a history of heart disease, and who would normally take their prescribed Nitroglycerin for chest pain.

CONTRAINDICATIONS

Aspirin

- Inability to swallow
- Allergy to Aspirin
- Active peptic ulcer or gastrointestinal bleeding
- Pediatric patient
- Patient has already taken their recommended Aspirin dose prior to your arrival.

Nitroglycerin

- If the patient has taken Viagra or Levitra in the last 24 hours, or Cialis in the last 48 hours
- B.P. < 90 mmHg

Before initiating the treatment, you must have done the following:

- Performed a primary
- Ruled in the CP is cardiac in nature
- Administer 2 chewable 81 mg Aspirin PO
- Investigated the pain complaint, including severity
- Obtained a baseline set of vital signs
- 0.4 mg Nitroglycerin SL q 3 min
- Load and transport¹⁴ after the first Nitroglycerin¹⁵¹⁶

If pain is completely relieved, but returns:

- Re-initiate Nitroglycerin administration¹⁷
- Continue with assessment, treatment and vital signs q 5 minutes.

If pain persists or BP < 90 mmHg:

- Administer Entonox 5 minutes after last dose of Nitroglycerin.
- Continue with assessment, treatment and vital signs q 5 minutes
- After 30 minutes from first dose of Nitroglycerin, this protocol may be repeated after stopping Nitrous Oxide for 5 minutes

¹⁴ Patient outcome is better if definitive hospital treatment is provided as soon as possible, hence early transport is highly desirable. When equipment is ready load and transport, do not delay until after the first Nitroglycerin if everything else is ready to go; load and go and treat en route.

¹⁵ Ensure that BP > 90 mmHg and check whether pain still persists before administering repeat Nitroglycerin. Contact medical oversight if needing to go beyond 3 doses or if patient condition changes.

¹⁶ If patient is not on Nitroglycerin, systolic pressure >100; HR >50 and <150 Nitroglycerin may be administered after mandatory consultation with medical oversight.

¹⁷ If pain is completely relieved for more than 5 minutes, you may re-initiate the Nitroglycerin component, (but not the Aspirin component) of the Chest Pain Protocol if the patient's pain returns.

Oxygenation Management – Pulse Oximeter PCP/EMR

INDICATIONS

For monitoring O₂ on all patients.

CONTRAINDICATIONS

Children < 10kg

UNRELIABLE READINGS

Carbon monoxide Poisoning

Other conditions²²

Note: Always consider how your patient is presenting, regardless of the numbers – TREAT THE PATIENT!

Assess Patient

Initiate high flow O₂

Apply Pulse Oximeter²³ as per procedure

SpO₂ > 94%

- Decrease flow rate²⁴ to maintain SpO₂ >95%

SpO₂ < 95%

- Increase O₂ flow rate to maximum 15 L/min²⁵
- Switch to 100% O₂ via non-rebreather to maintain SpO₂ ≥ 95%
- Consider assisted ventilation
- Record the SpO₂

²² Sickle Cell Anemia, severe Anemias.

²³ Do not delay any part of the primary survey / intervention to apply the pulse oximeter. The oxygenation management procedure is described on the next page.

²⁴ Use lowest amount of Oxygen flow to maintain the SpO₂ at >95%. Adjust Oxygen by turning it up or down by 1 L/min each minute and monitor the oximeter reading. For adult face mask, rate is 6-15 L/min; for nasal prong, rate is 2-5 L/min.

²⁵ For COPD patients, maintain the SpO₂ in the range of 92% to 95%.

Oxygenation Management (Cont.)

Oxygenation Management Procedure

1. Apply oxygen as per usual practice ensuring the following type of patient gets high flow oxygen immediately:
 - Seriously ill patient
 - Short of Breath patient
 - Moderate to severely traumatized patient who may be bleeding
 - Patient who may be having internal bleeding
 - Smoke and carbon monoxide poisoning patient (maintain high oxygenation - NRB)
 - Patient with chest pains
2. Apply pulse oximeter to adequately perfusing finger;
3. Ensure the proper application of the finger probe;
4. Activate the unit;
5. Ensure the unit is detecting a pulse;
6. Compare pulse on pulse oximeter to pulse by auscultation or by palpation;
7. If pulse oximeter and palpation pulse differ by <10 BPM, the reading for the SpO₂ is reliable.
8. If pulse oximeter and palpation pulse differ by >10 BPM then:
 - Remove pulse oximeter
 - Remove nail polish
 - Use another or a warmer digit
 - Use an ear lobe (if probe available) or toe
 - Re-apply pulse oximeter and compare pulse

Oxygen Administration

Do not use an adult face mask with a flow rate less than 6 L/min, as this would deliver less oxygen to the patient than room air.

Nasal cannula should not be used with greater than 5 L/min O₂ as this may cause discomfort and drying of mucosa and does not increase O₂ concentrations any further.

A non-rebreather mask is indicated for carbon monoxide poisoning and smoke inhalation.

Administration of oxygen to COPD patients is by nasal cannula at 1-3 L/min (following acute care treatment with high flow oxygen, if required). Use of high flow oxygen for COPD patients complaining of chest pain is indicated.

Oxygen should be titrated based on pulse oximetry aiming for an O₂ Saturation of 95% if the patient is not SOB or in shock. Patients who are SOB or in shock require high flow O₂

Entonox PCP/EMR

INDICATIONS

- Pain

CONTRAINDICATIONS

- Inability to ventilate an enclosed treatment area
- Inability to comply with instructions
- Suspected inhalation injury²⁶
- Suspected air embolism or pneumothorax
- Patient has taken Nitroglycerin within the last 5 minutes
- Decompression sickness

CAUTIONS

- Depressant drugs
- Maxillo-facial injuries
- COPD
- Distended Abdomen
- Shock

Before initiating the Pain Using Entonox protocol, you must have done the following:

- Completed a primary survey
- Investigated the pain complaint, including severity
- Obtained a baseline set of vital signs, including oxygen saturation
- Conducted a history and physical examination sufficient to rule out the contraindications for use of Entonox
- Invert cylinder 3 X
- (If in the ambulance) Turn on vehicle ventilation system (intake and output)

Note:

- Let patient use bite stick or apply mask to own face, do not assist.
- Mask/bite stick may fall away as patient becomes sedated, do not replace mask.
- Patients should receive high-flow oxygen when Entonox is discontinued.
- Discontinue if cyanosis develops.

²⁶Entonox may be administered to patients with suspected inhalation injuries if O₂ saturation is 100%.

Suspected Narcotic Overdose – PCP/EMR

INDICATIONS

- Decreased LOC in a patient with a history that suggests narcotic overdose
- Difficulty in maintaining the patient's airway
- Respiratory rate <10 per minute

CONTRAINDICATIONS

- Naloxone Hydrochloride is contraindicated in patients with a known Naloxone allergy

Treatment

- Primary airway management is paramount by ensuring the patient's airway is protected, open and clear.
- Ensure the patient is well oxygenated and/or ventilated with a BVM
- Primary survey
- A history sufficient to suggest narcotic overdose as the cause of unconsciousness
- A history sufficient to rule out contraindications for the suspected narcotic overdose protocol
- A baseline set of vitals

Administer 0.4 mg Naloxone Hydrochloride IM³⁹⁴⁰

- Load and transport

If no improvement:

- Administer 0.4 mg Naloxone Hydrochloride IM

If no improvement:

- Administer 0.8 mg Naloxone Hydrochloride IM

If no improvement:

- Administer 2.0 mg Naloxone Hydrochloride IM
- Also consider assessing blood glucose level
- If blood glucose \leq 4mmol/L, consider diabetic protocol

³⁹ Repeat q 3 minutes as needed to reverse respiratory depression

⁴⁰ Do not give to neonates

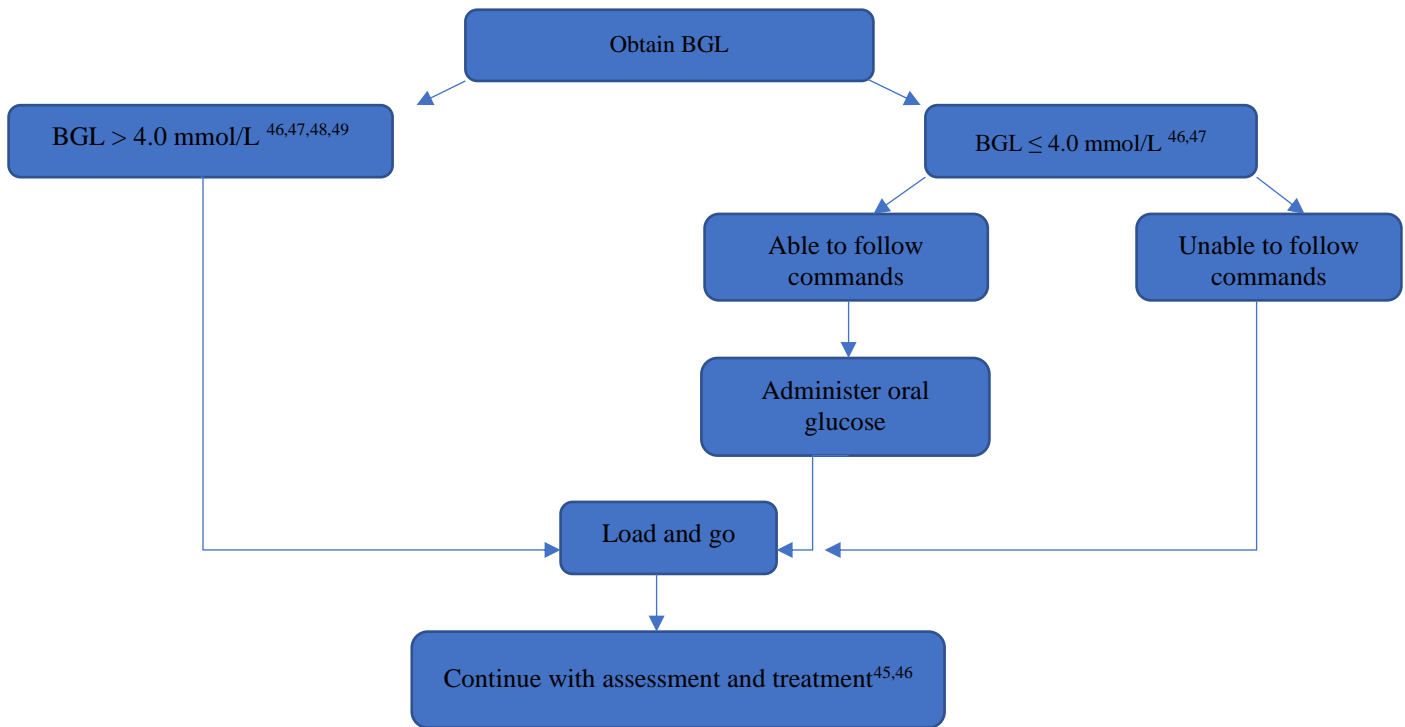
Diabetic Emergencies – EMR

INDICATIONS

Known diabetic patients with decreased LOC whose history suggests hyperglycemia or hypoglycemia.

Before initiating the Diabetic Emergencies protocol, you must have done or obtained the following:

- Request equipment be prepared for rapid transport⁴¹
- A primary survey
- A history of diabetes
- A baseline set of vital signs
- Signs and symptoms sufficient to suggest hypoglycemia or hyperglycemia^{42,43,44,45,46}



⁴¹ When equipment is ready load and transport, do not delay if everything else is ready to go; load and go and treat en route.

⁴² If repeat glucometer result is $\leq 4.0 \text{ mmol/L}$, give oral glucose again.

⁴³ Consider other causes of unconsciousness and contact medical oversight for further orders.

⁴⁴ Only if patient is able to maintain airway

⁴⁵ If able to follow commands apply approx. 15 gr. oral glucose it provides immediate treatment for the patient.

⁴⁶ If no improvement, consider other causes of unconsciousness, contact medical oversight for further direction.

Aspirin (ASA) - Drug Monograph

Classification

- Platelet Inhibitor / Anti-Platelet (Stops Formation of Blood Clots)
- Anti-Pyretic (Reduces Fever)
- Analgesic (Pain Relief)
- Anti-Inflammatory (Reduces Inflammation)

Mechanism

- ASA inhibits the formation of thromboxane A₂, which is a potent platelet aggregator and vasoconstrictor. This prevents platelets from clumping together to form clots.

Indications

- Chest pain or atypical symptoms consistent with cardiac ischemia / myocardial infarction.

Contraindications

- Known hypersensitivity or allergy to ASA
- Patients who have experienced bronchospasm or other respiratory reaction (asthma attack) precipitated by ASA or other NSAID drugs.
- Active or recent bleeding of any kind, including head injury, peptic ulcer disease, or GI bleeding.
- Pediatric patients with signs and symptoms consistent with viral illnesses.

Cautions

- Possibility of pregnancy
- Currently taking other anti-coagulants (Clini-call Indicated)
- Recent Surgeries

Administration

- **Route:** Oral (PO), instructing the patient to chew the tablets before swallowing them.
- **Dose:** 2 X 81 mg chewable ASA (162 mg)

Pharmacokinetics

- **Onset:** 5-30 minutes
- **Duration:** 4-6 hours

Notes

- ASA is the only medication that we administer that does NOT require us to take a full set of vital signs first. ASA should be administered after RBS, oxygen administration and positioning have been taken care of, and before initiating transportation of this patient. Indications, contraindications, and 6 rights of medications are still required before administration of ASA.
- If the patient has already taken ASA *specifically for this event* you may decrease the amount you administer by the amount they have taken. For example, if a patient experiencing cardiosuggestive chest pain took 1 X 81 mg ASA prior to your arrival on instructions from the dispatcher, you may reduce your administered medication to 1 X 81 mg. However, if the same patient took 1 X 81 mg ASA several hours ago because that is part of their daily medication routine, you should administer the full dose of ASA to that patient.

Nitrous Oxide (Entonox) - Drug Monograph

Classification

- Inhaled Anesthetic

Mechanism

- Potent analgesic and a weak anaesthetic

Indications

- Relief of moderate to severe pain, including – but not limited to – cardiac pain where nitro is ineffective or contraindicated, isolated extremity injuries, pain from burns, and pain associated with childbirth.

Contraindications

- Consider the acronym PAIN DIE
 - Pneumothorax (suspected by MOI or patient presentation, or confirmed by auscultation)
 - Air embolism
 - Inhalation injury
 - Nitroglycerin in last 5 minutes
 - Decompression sickness
 - Inability to comply
 - Enclosed space (ensure ventilation, or exhaust is turned on in ambulance)

Cautions

- Consider the acronym SADFC
 - Signs of shock (Monitor for decreasing LOC and signs of hypoxemia)
 - Abdominal distension (Query cause)
 - Depressant drug use (Monitor for decreasing LOC)
 - Facial injuries (Ensure patient can use bite stick without causing further pain or damage)
 - COPD (Patient might not have sufficient inspiratory volume to effectively self-administer Entonox)
- Monitor for adverse effects including light-headedness, nausea, sedation, numbness, drowsiness, and disorientation. If found, immediately discontinue Entonox and administer high flow oxygen via non-rebreather mask.

Administration

- **Route:** Inhaled
- **Timing:** PRN
- **Dosage:** Self-administered

Pharmacokinetics

- **Onset:** Rapid
- **Duration:** Requires continuous use.

Notes

- In BC, Nitrous Oxide is used in a 50/50 mix with oxygen called Entonox, which is administered in a self-administered, inhaled form.
- If the patient's level of consciousness decreases, immediately discontinue the Entonox, verify ABCs, and place the patient on a non-rebreather mask with high flow oxygen.

Naloxone (Narcan) - Drug Monograph

Classification

- Narcotic Agonist

Mechanism

- Antagonizes opioid effects by competing for the same receptor sites.
- Reverses the effects of opioids including respiratory depression, sedation, hypotension.

Indications

- To reverse respiratory depression and decreased mental status due to actual or suspected narcotics (opioid) use.

Contraindications

- Known allergy or hypersensitivity to naloxone.
- Neonates.

Cautions

- Reversal of narcotic effect might result in combativeness due to prolonged hypoxia or opioid withdrawal.
- Assess for adverse effects including, hypotension, hypertension, nausea, vomiting, and tachycardia

Administration

- **Route:** Intramuscular injection (IM injection)
- **Timing:** q. 3 minutes
- **Dose:**

Naloxone Dosing Schedule	
1 st Dose	0.4 mg
2 nd Dose	0.4 mg
3 rd Dose	0.8 mg
4 th Dose	2.0 mg
<i>Consult Clini-Call if more naloxone is required</i>	

Pharmacokinetics

- **Onset:** IM injection – 3-5 minutes; IV – 1 minute
- **Duration:** 30-45 minutes.

Notes

- Ensure primary airway management has been achieved, ventilations provided to compensate for respiratory depression, and that patient is well oxygenated BEFORE administering naloxone.
- Once respiratory depression has been resolved, it is NOT necessary to continue administering naloxone until effects of narcotics use are completely reversed.

Nitroglycerin - Drug Monograph

Classification

- Antianginal, Vasodilator

Mechanism

- Reduces cardiac oxygen demand primarily by dilating blood vessels resulting in decreased blood flow (preload) to the heart from the body and decreasing resistance to the heart's pumping (after load).
- Dilation of coronary arteries results in increased blood flow to cardiac tissue.

Indications

- Chest pain consistent with cardiac ischemia / myocardial infarction.

Contraindications

- Systolic BP < 110 mmHg
- Known allergy or sensitivity to nitrates
- Patient has used Viagra or Levitra in the past 24 hours, or Cialis in the last 48 hours.
- Patient does NOT have a prescription for Nitroglycerin (**Unless medical direction is consulted – see notes below.*)

Cautions

- Hypotension frequently occurs, especially in the elderly and must be expected. Ensure patient is not at risk to fall.
- If the patient has used Viagra at any time in the past, (beyond the 24-hour contraindication limit) there may be some cause for very careful monitoring of the patient's blood pressure.
- If there is a substantial drop in systolic blood pressure (<20 mmHg) with lightheadedness or if patient's LOC decreases following administration, discontinue Nitro, position supine, reassess ABCs, and apply high flow O2.

Administration

- **Route:** Sublingual (SL) spray
- **Dose:** 0.4 mg (1 spray)
- **Timing:** q.3 minutes to a maximum of 3 doses within 30 minutes, verifying that pain persists and systolic blood pressure remains above 110 mmhg before EACH dose.

Pharmacokinetics

- **Onset:** 60 seconds
- **Duration:** 30 minutes

Notes

- Administer Nitroglycerin as per indications regardless of any Nitro taken by the patient prior to arrival, including other forms of Nitro, such as a transdermal patch.
- Do NOT shake the container prior to administering Nitro spray.
- If you have given Nitro and are now using Entonox, if hospital arrival is not imminent 20 min following your last Nitro, discontinue Entonox, resume high flow O2 and administer additional Nitro as per protocol.
- If pain is completely relieved for more than 5 min, you may initiate the chest pain protocol again if the pain returns, including administration of additional nitro even if less than 30 minutes has passed.
- **If your patient does NOT have a nitroglycerin prescription:** Nitroglycerin can be administered to patients without a prescription following a mandatory call to online medical control. The contraindications are a little bit different – verify that pain is cardiosuggestive, **SBP is not < 110 mmHg**, and that the **pulse rate is between 50 and 150 bpm** before calling. Request up to 3 doses, and call again if pain persists, and re-administration is indicated.

Oral Glucose Gel - Drug Monograph

Classification

- Caloric

Mechanism

- Absorbed into the bloodstream resulting in increased blood glucose levels, thereby providing an increased level of glucose for use by cells.

Indications

- Decreased or altered level of consciousness AND blood glucose level < 4.0 mmol/L.

Contraindications

- Patient is unable to manage their own airway.

Cautions

- Patient must be able to maintain their own airway.
- Patient must be able to swallow.
- May increase airway management problems in obtunded patients.

Administration

- **Route:** Oral (PO)
- **Dose:** Administer ½ package (approx. 12-15 g)
- **Timing:** q. 5 min. if GCS < 15 and BGL < 4.0

Pharmacokinetics

- **Onset:** 5-10 minutes

Notes

- Patient should be positioned semi-fowler's, fowler's, or ¾ prone, and ability to manage own airway confirmed BEFORE administering oral glucose.

EMA Licensing Board Examinations

The EMA Licensing Board (Board) licenses candidates that have completed a training program recognized by the Board and passed the examinations approved by the Board. The Board also licenses applicants licensed in jurisdictions outside of British Columbia (BC) and may require an applicant to complete an examination when the Board determines that the applicant's qualifications, examinations or training required for their authorization to practice in the other jurisdiction are not equivalent to those required in BC for the category of licence sought. In addition, the Board may require that a former EMA successfully complete examinations in order to have a licence suspension removed or a licence reinstated.

The purpose of the examination process is to ensure that candidates possess the necessary knowledge, abilities, skills, aptitudes and judgements for entry to practice into the paramedic and first responder professions in BC.

Candidates have **three attempts** to successfully complete each of the required examinations. Candidates that are unsuccessful at the examinations after three attempts are required to submit proof of successful completion of a new recognized training program to be eligible to begin the exam process again.

If candidate has failed the practical exams 3 times and taken a new program, they can be exempt from the written and/or jurisprudence exam under the following circumstances:

- The candidate has completed the written and/or jurisprudence exams within 6 months of successfully completing the new training program, and
- The candidate received 85% or higher on their first attempt at the written and/or jurisprudence exams.

Practical Examination Grading Criteria

In order to ensure accurately marked performance based practical exams the EMA Licensing Board uses the “star weighting” for practical examinations. The star weighting system uses either a three star (***), two star (**), or one star (*) to determine a candidates performance during a practical evaluation.

The practical exam marking sheet lists generalized performance criteria containing the steps required in a full call scenario or skill test simulation (EMR only). The grading criterion allows each evaluator to mark each criteria item in a standardized manner that ensures consistency for all examination candidates.

Evaluators should focus their assessment on the concept of “outcome based” candidate performance. This identifies key performance criteria that a candidate must demonstrate to effectively assess, manage or treat a patient. This means a broader perspective of the candidate’s performance is observed allowing evaluators to focus on the patient treatment outcomes rather than the completion of steps in a sequential pattern unless deviation from a sequential pattern would result in **life threatening consequences** for the patient.

Star Weighting

Three stars (***) represents a skill that constitute critical behavior. Failure to perform the skill could have life threatening consequences for the patient and/or the EMA.

Two stars (**) represents a skill that must be performed to provide an accurate assessment of the patient, prevent patient deterioration, or prevent serious injury aggravation. Failure to perform such a skill could have detrimental, but not life-threatening consequences to the patient and/or the EMA.

One star (*) represents skills that are required to provide optimal care. Failure to perform the skill would pose minor discomfort to the patient or minimally aggravate the injury but not make the condition or injury worse.

For each star weighting a candidate can lose percentage points based on the degree of deficiency performed. Marks deducted are accumulative throughout the examination. In order to pass a candidate must obtain 70% or more on the full call scenario or skill station.

Star Weighting	Percentage Deduction			
***	100% - the skill is not performed at any time during the examination which results in a serious negative impact or is performed incorrectly with a serious negative impact.	15% - the skill is performed out of sequence which may negatively affect patient care or is performed incorrectly with a minor negative impact.	5% - the skill is performed with minor deficiencies (eg. Late, self-correct, 1 prompt, performed out of sequence) with no impact to patient care.	0% - skill is performed correctly and in a timely manner or the skill is not applicable to the examination.
**	15% - the skill is not performed at any time during the examination which results in a serious negative impact or is performed incorrectly with a serious negative impact.	5% - the skill is performed out of sequence which may negatively affect patient care or is performed incorrectly with a minor negative impact.	3% - the skill is performed with minor deficiencies (eg. Late, self-correct, 1 prompt, performed out of sequence) with no impact to patient care.	0% - skill is performed correctly and in a timely manner or the skill is not applicable to the examination.
*	5% - the skill is not performed at any time during the examination which results in a serious negative impact or is performed incorrectly with a serious negative impact.	3% - the skill is performed out of sequence which may negatively affect patient care or is performed incorrectly with a minor negative impact.	1% - the skill is performed with minor deficiencies (eg. Late, self-correct, 1 prompt, performed out of sequence) with no impact to patient care.	0% - skill is performed correctly and in a timely manner or the skill is not applicable to the examination.

OVERALL PATIENT CARE (Knowledge, Critical Thinking, and Treatments)

Criteria	Performance Standards			
Communication and Overall patient care	100% deduction if the candidate performs an act that may jeopardize the life of the patient that is not already captured in the major performance criteria	15% the skill is performed out of sequence which may negatively affect patient care or is performed incorrectly with a minor negative impact.	5% the skill is performed with minor deficiencies (eg. Late, self-correct, 1 prompt, performed out of sequence) with no impact to patient care.	0% deduction if the candidate does not perform any acts that would be detrimental to overall patient care
<p>Comments:</p> <ul style="list-style-type: none"> • Deductions within this performance criteria should only occur if the candidate's performance cannot be captured elsewhere • Some examples may include but are not limited to managing shock; burn management; and minor bleeding control • Comments/justification is required for this section on the feedback form 				

Practical Exam Appeals

If a candidate does not agree with their practical exam result(s) they can request a review of their practical exam by completing the [Request for Practical Exam Review](#) form **within 7 days** of their exam. The candidate should include all of the details of their practical exam and why they feel their results are incorrect. The clinical advisor will review the candidate's practical exam(s), the candidate's explanation of the practical exam(s), and discuss the practical exam(s) with the examiner before making a final decision.

Please note: requests for review that are received more than 7 days after an exam will not be accepted.

If the candidate is still unsatisfied and believes they have been treated unfairly, they can contact the Office of the Ombudsperson using their [online complaint form](#).

Exam Reviews

Written Exams

If a candidate has been unsuccessful twice at the EMALB online written examination, they may request feedback by contacting the [clinical advisor](#).

Practical Exams

If an applicant is unsuccessful twice on the practical exam, their exams will be reviewed by the clinical advisor and feedback on areas of weakness will be sent to the candidate. Review and feedback can take up to three weeks to receive. Final remedial exams may not be attended until after the exam review is complete and the candidate has received their feedback. The candidate can refuse an exam review by contacting the [clinical advisor](#).

EMR Examination Requirements

Jurisprudence Examination

All licensing candidates at the EMR, PCP, ITT, ACP, or CCP level are required to successfully complete the jurisprudence examination. The jurisprudence examination consists of 100 questions and there is no time limit to complete. 80% is required to pass.

The jurisprudence examination consists of:

- multiple choice questions and True/False (98 marks).
- 2 matching question (40 marks). Between the two matching questions there are 40 items to match.
- 2 matching questions (18 marks). Between the two matching questions there are 18 items to match

When you have completed your examination, you will receive your mark. In the interest of examination security, you **will not** be able to view the full examination once it has been completed. If you are unsuccessful on your first attempt, you may re-attempt the exam at any time. If you are unsuccessful on your second attempt, you will be required to wait **5 days** before attempting the exam for a third and final time.

Written Examination

Board approved written examinations for EMRs are administered by the EMA Licensing Branch.

EMRs that are trained in BC and applying for initial licensure are required to successfully complete the online written examination. The EMR written examination consists of 200 questions with 2.5 hours to complete. 75% is required to pass.

EMRs applying for licence reinstatement or applying from out of country may also be required to successfully complete the online written examination.

When you have completed your examination, your results will be available immediately. In the interest of examination security, you **will not** be able to view the full examination once it has been completed. If you are unsuccessful on your first attempt, a remedial exam will be assigned to you within **5 business days**. If you are unsuccessful on your second attempt, a remedial exam will be assigned to you within **7 business days**.

Practical Examination

EMR candidates are required to successfully complete two practical scenarios, which consist of one medical and one trauma call.

When a candidate is unsuccessful in a practical scenario, only one remedial exam is assigned as follows:

When an EMR candidate fails:	The EMR candidate is assigned:
<ul style="list-style-type: none">• a practical medical scenario	<ul style="list-style-type: none">➤ another medical scenario if the candidate fails a critical component of the scenario (note: the scenario will not be of the same nature as the previous exam)
<ul style="list-style-type: none">• a practical trauma scenario	<ul style="list-style-type: none">➤ another trauma scenario if the candidate fails a critical component of the scenario (note: the scenario will not be of the same nature as the previous exam)

Scheduling EMR Examinations

1. Read the Board [examination policies](#)
2. Contact your training provider and ensure they have your consent to send your certificate to getanexam@gov.bc.ca
3. Submit electronically the [Request for Evaluation](#) form
4. Obtain a [BCeID](#). **Please use only lowercase characters in your BCeID username.** (If you already have a BCeID and password you may skip this step)
5. Please use your BCeID username and password to create a new account in the [online learning system](#) (it may take up to 2 weeks to be granted access)
6. Review the [Applicant Guide to the B.C. Jurisprudence Examination](#)

Applying for a Licence

Licence Fees

Payment of the licence fees as set out in the Emergency Health Services Regulations is required to obtain your licence. Licence fees are required when you have successfully completed all examinations but can be paid at any time throughout the application process. In order to speed up the licensing process, you may also complete all the licensing requirements at any time during your evaluation process. You may request a refund in writing for any licence fees you submit, if you are unsuccessful in the evaluation process.

Licence Category	Licence Fee (if written examination is required)	Licence Fee (if practical examination is required)	Licence Fee (if both written and practical examinations are required)	Licence Renewal Fee
Emergency Medical Responder	\$ 50.00	\$ 400.00	\$ 450.00	\$ 50.00
Primary Care Paramedic	\$ 50.00	\$ 400.00	\$ 450.00	\$ 50.00
Advanced Care Paramedic	\$ 50.00	\$ 500.00	\$ 550.00	\$ 50.00
Critical Care Paramedic	no fee	no fee	no fee	\$ 50.00
Infant Transport Team	no fee	no fee	no fee	\$ 50.00

There are no licence fees associated with emergency medical assistant first responder licensing, student licensing, or initial licensing for applicants transferring from another province.

How to Pay your Licence Fees

Licence fees can be paid using the following methods:

- Visa, Visa Debit, MasterCard, or American Express
 - at the time you complete the [Application for Licence](#) form, or
 - by completing the [EMA Licence Payment](#) form at any time
- Cheque or Money order made payable to the Minister of Finance, including your full name, licence level and current mailing address.

Regular mail to:

Emergency Medical Assistants Licensing Branch
Ministry of Health
PO Box 9625 Stn Prov Govt
Victoria BC V8W 9P1

Or courier to:

EMA Licensing Branch
Ministry of Health
1515 Blanshard Street, 1st Floor
Victoria BC V8W 3C8

Licence Applications

Emergency medical responder and primary care paramedic licenses are valid for five years and require [yearly continuing competence submissions](#).

You are eligible for a licence when you have successfully completed all exams for your licence level.

To apply for your licence, follow these steps:

1. Complete and electronically submit an [Application for Licence](#).
2. Pay the applicable fees ([see above](#)).

EMA Licensing Board Examination Policies

Emergency Medical Assistants Licensing Board

EMALB 2011-01 Candidate Code of Conduct Responsible Branch: Emergency Medical Assistants (EMA) Licensing Branch Contact: Exam Coordinator getanexam@gov.ca.ca	Reference Information (Manual, page number, chapter):
	Replaces former policy: N/A
	Date Effective: July 13, 2011
	Last Update: November 23, 2018
	Next Review Date: January 2020
Keywords	E.g. examinations, regulation, licensure etc.

1. Policy Rationale & Purpose:

It is in the best interest of all EMA Licensing candidates to co-operatively ensure examinations are conducted in a safe, appropriate and orderly manner in accordance with the Code of Conduct for EMA Licensing Examination Candidates.

2. Policy Scope

This policy applies to all candidates attending BC EMA Licensing examinations.

3. Policy Statement:

By accepting placement into the examination process, all candidates are considered to have agreed to abide by this Code of Conduct. All candidates agree to follow the direction of evaluators who have the right, at their discretion, to stop an examination at any time, require candidates to leave the premises or any other remedy as may be deemed appropriate.

Examination Code of Conduct:

1. Candidates are expected to conduct themselves in a respectful and professional manner and should follow the [EMA Code of Ethics](#) at all times.
2. Any form of cheating, plagiarism, copying or reproduction of examinations (including screen shots and pictures), impersonation or falsification of documents will not be tolerated.
3. Without limiting the generality of the above, the following actions are unacceptable:
 - a. Inappropriate communication with another candidate
 - b. Any behaviour or activity which causes disruption to other candidates, patients or evaluators including, but not limited to, talking during written examinations, foul language or threats, gestures and acts of violence
 - c. Being intoxicated through use of alcohol or being under the influence of drugs including, but not limited to, cannabis and cannabis products.

- d. Any departure from the examination room without the knowledge and permission of the evaluator.
 - e. Pausing an examination for any reason, including being called out to an incident. If you are completing the examinations within work hours, you must ensure that there is enough time set aside to complete the examination in full without interruption.
 - f. Use of any electronic devices including phones, cameras, or other communication or recording equipment
 - g. Bringing into the examination room books, bags, notes or other material unless prior approval is granted by the EMA Licensing Branch
 - h. Bringing weapons of any kind into the examination centre (e.g. knives, guns, etc.)
4. For the purposes of identification and registration at examinations, candidates are required to produce government, employer or training agency issued photo identification
 5. Candidates should arrive at least 15 minutes prior to the designated examination start time

Practical Examination Dress Code:

Clothing, footwear and related requirements are:

- Footwear must be of closed-toe and sturdy design (e.g., athletic shoes, employer or training agency issued footwear)
- Long hair must be securely tied back
- Long pants or capris covering the knees must be worn (no shorts, skirts or dresses)
- Shirts, T-shirts and blouses must be of a non-revealing and professional nature
- No fragrances may be worn during the evaluation process
- For safety reasons, accessories that may be caught in equipment or which may be hazardous to others are not permitted

The EMA Branch reserves the right to require a candidate to provide medical certification indicating ability to undertake the examination process.

Any concerns or complaints regarding examinations should be immediately brought to the attention of the evaluator and/or EMA Licensing Branch. Please note that all parties involved in a complaint will have the opportunity to respond.

Any violation of this Code of Conduct may be referred to the EMA Licensing Branch/Board for enquiry. Penalties may be imposed by including discontinuation of the examination process, requiring a candidate to attend a different examination site or other penalties as appropriate.

If, due to a violation of this Code, your exam is discontinued, it may be considered to be an attempt by the Branch.

4. Legal Authority:

[Emergency Health Service Act Section 6\(5\)\(a\)](#)

[Emergency Medical Assistants Regulation Section 2\(ii\)](#)

[Emergency Medical Assistants Regulation Section 3\(3\)\(a\) and \(b\)](#)

[Emergency Medical Assistants Regulation Section 9.2\(b\)](#)

5. Key Stakeholders:

EMA Licensing candidates

Reviewed by the EMA Licensing Board on: July 13, 2011

Approved (director name & signature): N/A

Date approved: July 13, 2011

Drafted by: N/A

Emergency Medical Assistants Licensing Board

<p>EMALB2012-02 Failure to Attend or Late Notice of Cancellation</p> <p>Responsible Branch: Emergency Medical Assistants (EMA) Licensing Branch</p> <p>Contact: Exam Coordinator getanexam@gov.bc.ca</p> <p>Keywords: examinations</p>	Reference Information (Manual, page number, chapter):
	Replaces former policy: EMALB 2012-02 Exams - No show and late cancel of exams
	Date Effective: April 1, 2012
	Last Update: January 17, 2018
	Next Review Date: January 2020
	E.g. examinations, regulation, licensure, etc.

6. Policy Rationale & Purpose:

Practical examinations are scheduled on a first come first served basis and the branch maintains a waitlist for candidates that are unable to be scheduled for a preferred session. The branch is unable to accommodate the waitlisted candidates when space becomes available in the session with less than 7 days’ notice. Candidates that fail to show up or cancel an examination with less than 7 days’ notice are affecting other candidate’s ability to complete their examinations in a timely manner.

The purpose of this policy is to minimize the number of examination candidates who fail to attend their scheduled practical examination session or provide less than 7 days’ notice of cancellation. Minimizing the number of cancellations maximizes the utilization of the branch’s examination resources (exam facilities, examiners, and exam equipment).

7. Policy Scope

This policy applies to all candidates scheduled for EMA practical examinations.

8. Policy Statement:

Candidates who do not attend their scheduled practical examination session, or cancel with less than 7 days’ notice, will be advised by email that the non-attended session will be considered an attempt at the exam process.

If a candidate believes that they have a valid reason for not attending their scheduled practical exam, they may request an [exemption for an unattended practical examination](#) within two weeks of being notified of the missed scheduled practical exam. The request will be reviewed by the Exam Coordinator and/or the Manager, Branch Operations as per the guidelines below.

Guidelines for Exemption from Failure to Attend or Late Notice of Cancellation Policy:

The following reasons may be considered acceptable as exemptions to the policy:

- Candidate was ill or injured and unable to attend (a doctor's note must be provided)
- Sick family member that the candidate needed to provide care to
- Motor vehicle or bicycle accident
- Death in immediate family
- Travel delay due to weather
- Household/Family emergencies
- Other reasons may also be taken into consideration

9. Legal Authority:

[Emergency Health Service Act Section 6\(5\)\(a\)](#)

[Emergency Medical Assistants Regulation Section 2\(ii\)](#)

[Emergency Medical Assistants Regulation Section 3\(3\)\(a\) and \(b\)](#)

[Emergency Medical Assistants Regulation Section 9.2\(b\)](#)

10. Key Stakeholders:

- Examination candidates

Reviewed by the EMA Licensing Board on: September 28, 2011

Approved (director name & signature): N/A

Date approved: September 28, 2011

Drafted by: N/A

Change Index

Date	Page# Reference	Author	Details
2020-01-24	Page 25	Kfiege	Updated footnote 9 to “Cool major burns for a total of 2 minutes on scene, transport and continue cooling enroute” instead of “Cool all burns 1- 2 minutes.”
2020-01-24	Page 32	Kfiege	Removed stray Asterix on chart
2020-01-24	All pages	Kfiege	Revised date removed from footer. All revisions and dates will be noted in the change index.
2020-01-24	Page 33	Kfiege	Removed “dry” reference from the stable patient findings
2020-01-24	Page 42	Kfiege	Added missing word “airway” at the end of the last bullet.
2020-01-24	41	kfiege	added bullet under advanced airway " it is acceptable to perform continuous compressions when an advanced airway is in place.
2020-01-24	45	Kfiege	Updated footnote font size and color for consistency.
2020-03-17	70-73	Kfiege	Added missing sections on grading criteria, star weighting, exam appeals and exam reviews.
2020-04-16	85-86	Kfiege	Added policy - EMALB2012-02 Failure to Attend or Late Notice of Cancellation
2020-04-16	76	Kfiege	Updated EMR remedial exam table to remove skill tests as a remedial exam option
2020-05-22	36	CColeman	Changed maintenance rate to 75ml/hr
2020-05-- 29	53, 55, 57, 58	CColeman	Updated charts and footnotes
2020-06-02	55	CColeman	Add footnote #46"to administer oral glucose" under no IV access part
2020-05-29	71,72	Kfiege	Updated star rating chart
2020-06-02	Footer	Kfiege	Corrected current to date
2020-06-12	75	Kfiege	Updated link to request for evaluation form
2020-06-16	55	CColeman	BGL Not greater than 4
2020-06-18	74	kfiege	Updated EMR exam info for new exam

2020-07-07	74	Kfiege	Updated EMR written exam – number of questions
2020-07-28	52	CColeman	TXA - Changed to ≥ 12 years in document and drug monograph
2020-08-26	87	CColeman	Added note to ASA drug monograph to clarify when to administer
2020-09-22	74	KFiege	Updated information regarding written exam feedback for EMALB online exams.
2020-10-22	74	KFiege	Added requirement for practical exam reviews to be submitted within 7 days of their practical exam.
2020-12-10	74	Kfiege	Added link to new request for exam review form
2020-12-22	78	Kfiege	Removed 2020 COPR exam dates
2021-01-08	77	kfiege	Updated link to COPR website
2021-01-08	78	kfiege	Updated link to COPR testing accommodation policy
2021-03-17	75/77	kfiege	Removed time limit for jurisprudence exam.
2021-03-17	75	kfiege	Decreased passing grade for EMR written to 75% (from 80%) and increased the time allotted to 2.5 hours (from 2 hours)

Traumatic Injury Interventions

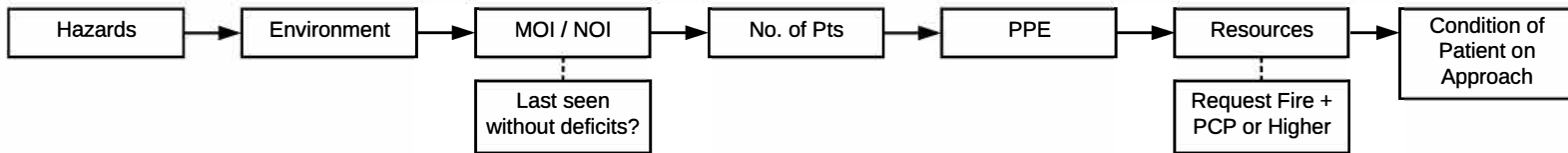
Injury	Initial Intervention	Critical Interventions
Bleeding Wounds	<ul style="list-style-type: none"> • Minor: No intervention necessary. • Moderate: Direct Pressure with Abdominal Pad • Severe: Direct Pressure with Gloved Hand 	<ul style="list-style-type: none"> • Direct pressure with sterile dressings (Telfa or abdominal pad, depending on severity) and bandage. • If not controlled: Leave original dressing in place, add dressing if necessary, and add bandage. • If not controlled: Leave dressings in place. Apply tourniquet 5-10 cm. above wound, avoiding joint. Document time applied.
Eye Injury	<p>Impaled Object</p> <ul style="list-style-type: none"> • Manually stabilize object. <p>Extruded Eyeball</p> <ul style="list-style-type: none"> • Stabilize with moist, sterile gauze. 	<ul style="list-style-type: none"> • Cover uninjured eye with gauze, and sterile dressings to any injured skin. • Apply initial layer of non-stick, sterile dressings. • Use bulky dressings to stabilize the object. • Secure dressings with triangular bandage or tensor to control movement. • Cover uninjured eye with gauze. • Apply moist, non-stick dressings to extruded eye. • Protect with cup, donut bandages, or other device.
Neck Laceration	<ul style="list-style-type: none"> • Direct manual pressure with gloved fingers, putting pressure above and below the injury. 	<ul style="list-style-type: none"> • Apply occlusive dressing and hold in place with manual pressure. • Exercise caution around other vessels and trachea.
Burns	<ul style="list-style-type: none"> • Initiate cooling (2-3 minutes) 	<ul style="list-style-type: none"> • Thermal / Radiation / Electrical: Continue cooling for up to 20 minutes, with exposure considerations, enroute. • Chemical: Flush / cool for 30 minutes. <ul style="list-style-type: none"> • After cooling, apply dry, sterile, non-adherent dressings and secure loosely with a bandage.
Abdominal Injury	<p>All Abdominal Injuries</p> <p>Impaled Object</p> <ul style="list-style-type: none"> • Manually stabilize object <p>Open Abdominal Wound</p> <ul style="list-style-type: none"> • Apply pressure with gloved hand. <p>Abdominal Evisceration</p> <ul style="list-style-type: none"> • Corral bowels with gloved hand. 	<ul style="list-style-type: none"> • Position supine, with knees bent to reduce tension on abdomen. • Apply non-stick dressings to skin. • Stabilize with bulky dressings. • Secure dressings with bandages to limit movement and bleeding. • Cover with sterile, non-stick dressings. • Cover with absorbent abdominal pad. • Secure with tape or bandages to limit bleeding without impeding breathing. • Cover injury and exposed bowels with sterile, moist dressings. • Cover with occlusive dressings. • Secure with tape or triangular bandage to limit bleeding without impeding breathing.

		<ul style="list-style-type: none"> • Ensure patient and wound are kept warm.
Amputation	<ul style="list-style-type: none"> • Control Bleeding with Direct Pressure using Abdominal Pad 	<ul style="list-style-type: none"> • Control bleeding as above or consider immediate tourniquet use. <p>Amputated Part</p> <ul style="list-style-type: none"> • Rinse with clean water. • Keep cool and dry: wrap in sterile or clean gauze, place inside plastic bag, and put in larger bag with snow or ice if available. • Label with name, date and time. • Ensure part is extricated with patient.
Fractures (Stable Patients)	<ul style="list-style-type: none"> • Manual Stabilization • Cut & Expose • Control Bleed if Necessary • Assess distal circulation and neuro function. 	<ul style="list-style-type: none"> • Realign if Indicated. • Refer to Treatment Guidelines for Fracture Management.
Fractures (Unstable Patients)	<ul style="list-style-type: none"> • Manual Stabilization • Cut & Expose • Control Bleed if Necessary 	<p>Pelvis</p> <ul style="list-style-type: none"> • 3 triangulars around pelvis (Middle-Top-Bottom) • Rolled blanket between legs. • 2 triangulars secures upper legs. • 1 triangular secures lower legs. • 1 triangular aligning feet to anatomical neutral. <p>Hip Fractures / Dislocation</p> <ul style="list-style-type: none"> • Rolled blanket between legs (to position of comfort). • 2 bandages securing femurs. • 1 bandage securing tib/fib. <p>Femur Fractures</p> <ul style="list-style-type: none"> • Rolled blanket between legs. • 2 bandages securing femurs, above and below fracture. • 1 bandage securing tib/fib. <p>Tibia / Fibula Fractures</p> <ul style="list-style-type: none"> • Rolled blanket between legs. • 1 bandage securing femurs. • 2 bandages securing tib/fib, above and below fracture. <p>Humerus/Radius/Ulna</p> <ul style="list-style-type: none"> • Secure arms beside body of patient if full package. <p>Or</p> <ul style="list-style-type: none"> • Sam splint secured with tensors or triangulars.
Skull Fracture	<p>Open (w/ Significant Bleeding)</p> <ul style="list-style-type: none"> • Direct Pressure w/ Gloved Hand to Control Bleeding • Appropriate Spinal Motion Restriction <p>Closed</p> <ul style="list-style-type: none"> • Assess for depressions / unstable fracture. • Appropriate Spinal Motion Restriction 	<ul style="list-style-type: none"> • Assess for depressions / unstable fracture. • Cover with sterile, no-stick dressings or abdominal pad. <ul style="list-style-type: none"> • Assess for depressions / unstable fracture. • Lightly secure with bandage, being careful not to apply pressure to fractured / depressed areas.

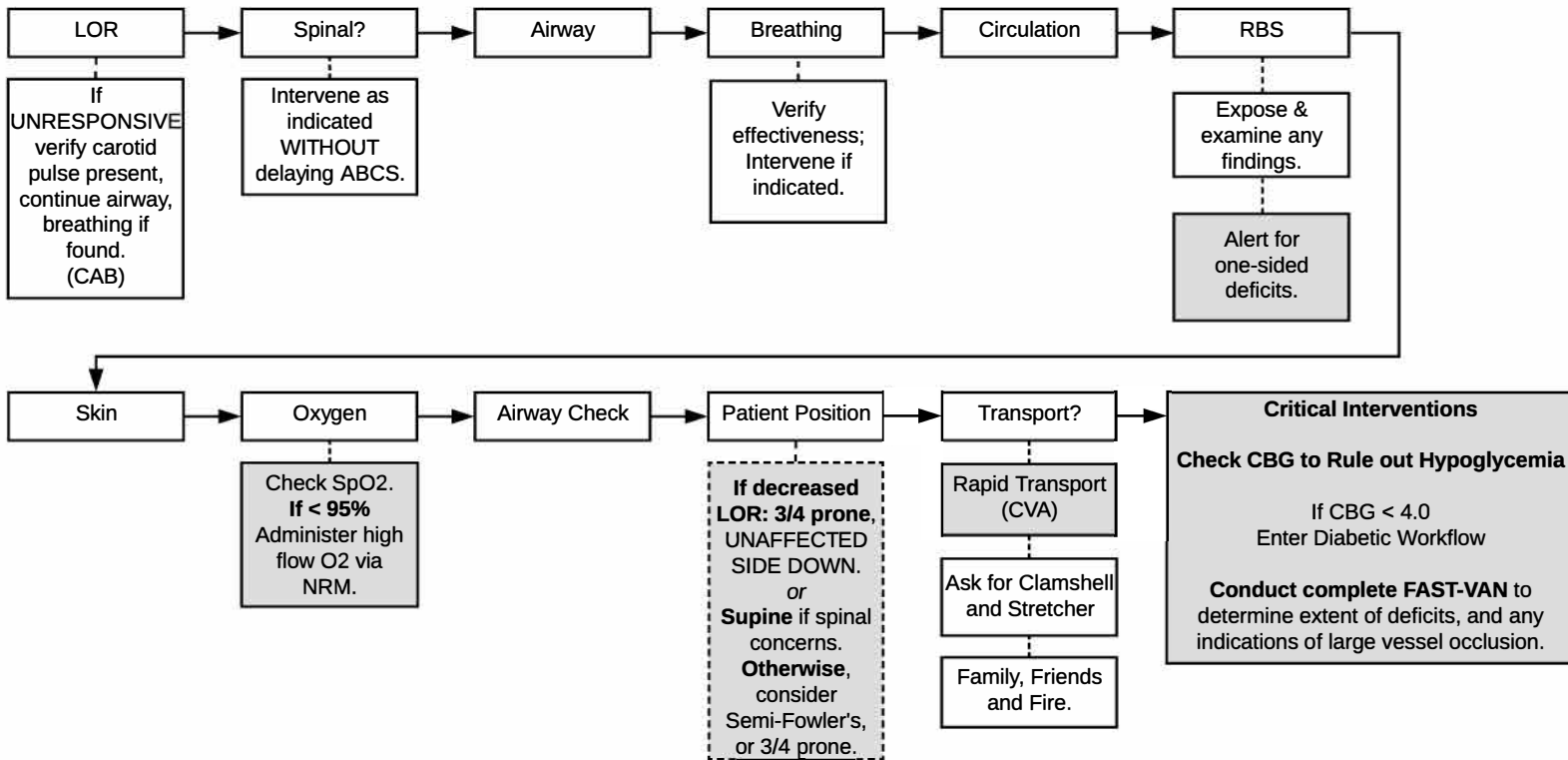
Skull – Impaled Object	<ul style="list-style-type: none"> Manually Stabilize Object 	<ul style="list-style-type: none"> Cover wounded area with non-stick, sterile dressings. Use bulky dressings to stabilize object, then secure with bandage to limit movement and bleeding. <i>If the impalement obstructs the airway (i.e. cheek) remove and treat wound.</i>
Chest Injury	<p>Impaled Object</p> <ul style="list-style-type: none"> Manually Stabilize Object. <p>Open Chest Wound</p> <ul style="list-style-type: none"> Cover with Gloved Hand <p>Rib Fracture</p> <ul style="list-style-type: none"> Assess for Flail Segment or Pneumothorax <p>Flail Segment</p> <ul style="list-style-type: none"> Stabilize with Hand Pressure. <p>Suspected Closed Pneumothorax</p> <ul style="list-style-type: none"> Prepare to Assist Ventilations. 	<ul style="list-style-type: none"> Cover wound with sterile, non-stick dressings. Use bulky dressings to stabilize object and control bleeding without impeding breathing. Apply ONE 3-sided occlusive dressing to open wound per side of chest (left/right). Seal all other open wounds with fully closed occlusive dressings. Have patient inhale as strongly as possible, and fill created space with bulky dressings. Tape liberally to secure, north-south and from sternum to spine. Position Fowler's / Semi Fowlers

Cerebrovascular Accident Workflow (Stroke / TIA)

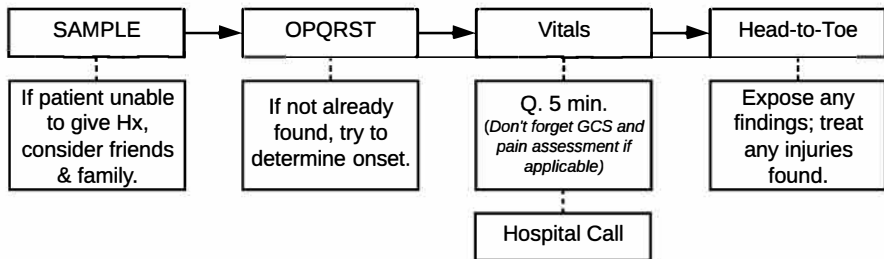
Scene Survey



Primary Survey



Secondary Survey

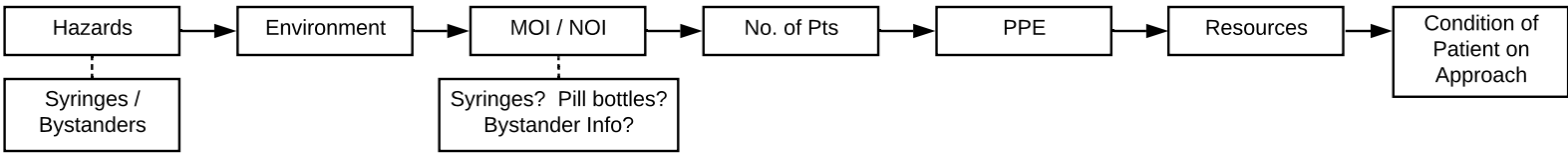


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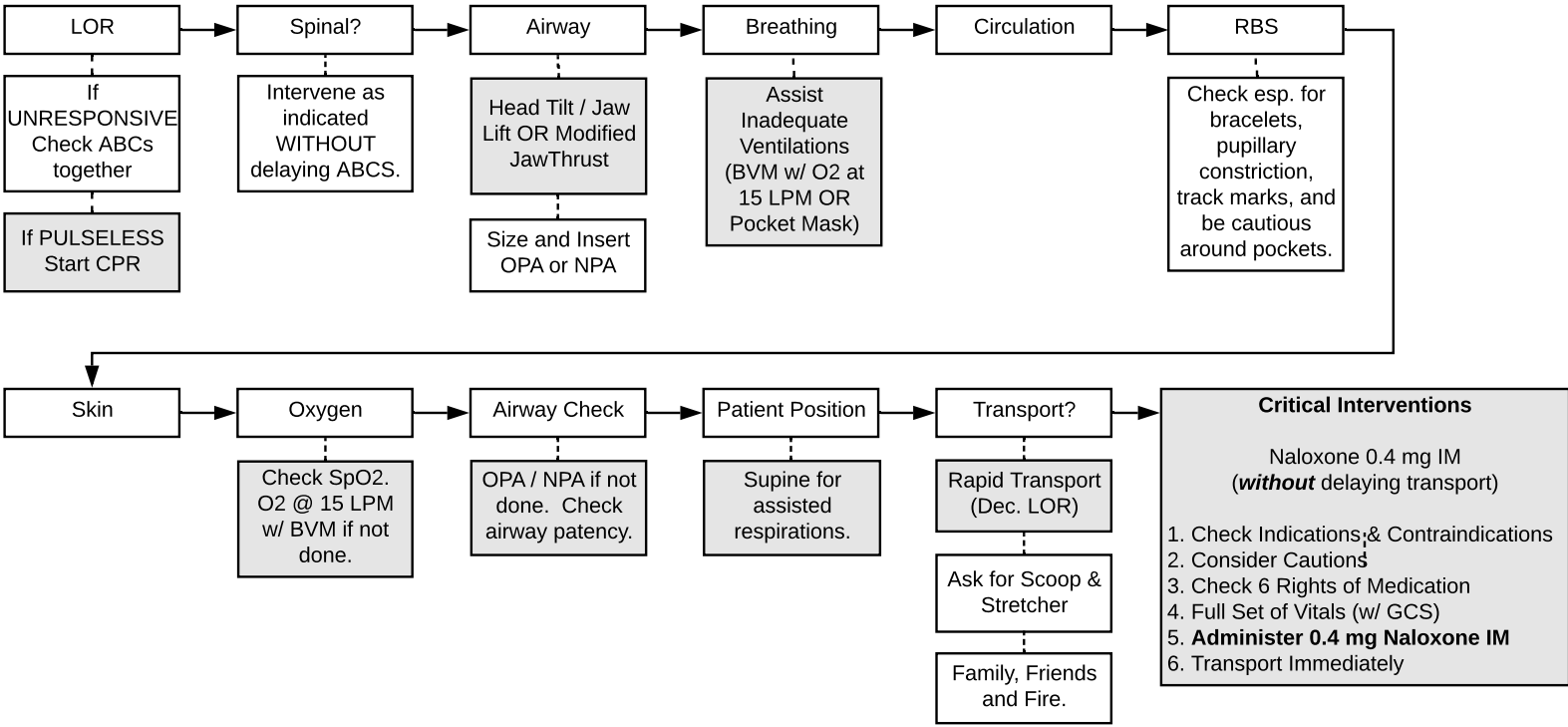
- * CBG check helps rule out stroke mimics.
- * O2 applied only if SpO2 < 95% as per BCEHS guidelines. EMALB has no special guidelines for O2 administration to suspected stroke patients.
- * All CVA patients with unresolved deficits are rapid transport, regardless of whether or not they fall into the treatment window.
- * If onset of deficits < 6 hrs, hospital call as follows: Suspected Hot Stroke. Pt. Name. Date of Birth. Gender. Time Last Seen Normal. Fast Van Findings. ETA.
- * DO NOT ADMINISTER ASA TO SUSPECTED STROKE PATIENTS UNDER ANY CONDITIONS.

Opioid Overdose Workflow

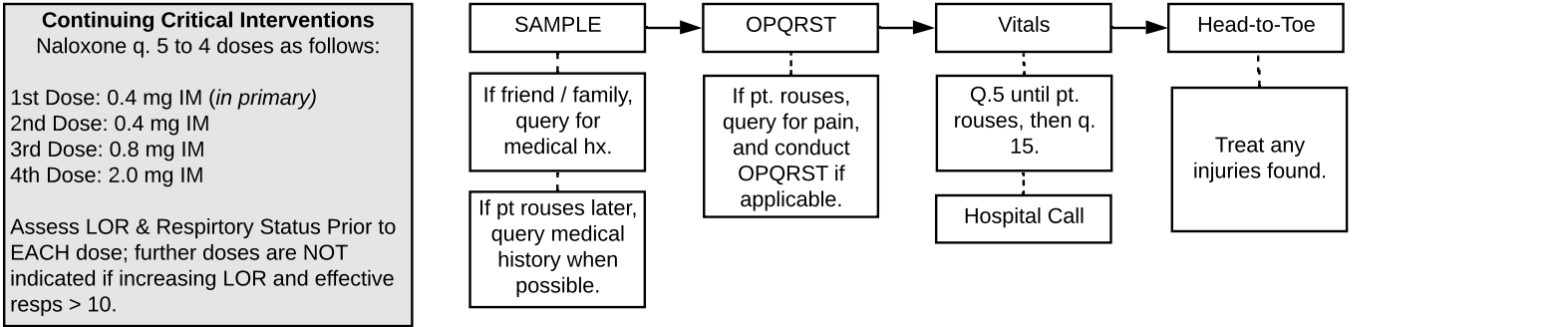
Scene Survey



Primary Survey



Secondary Survey

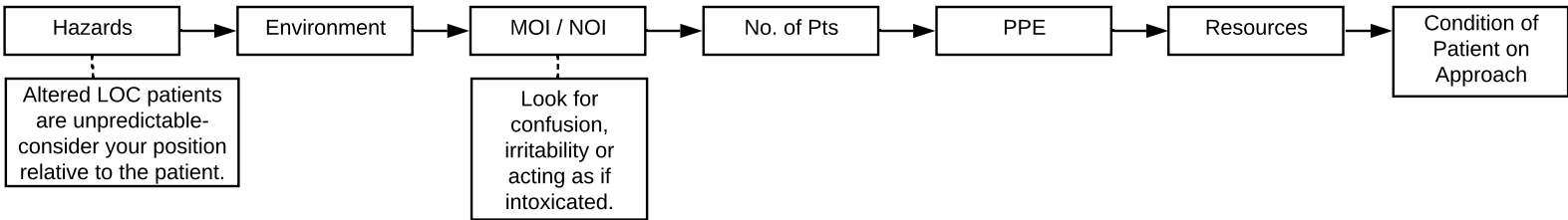


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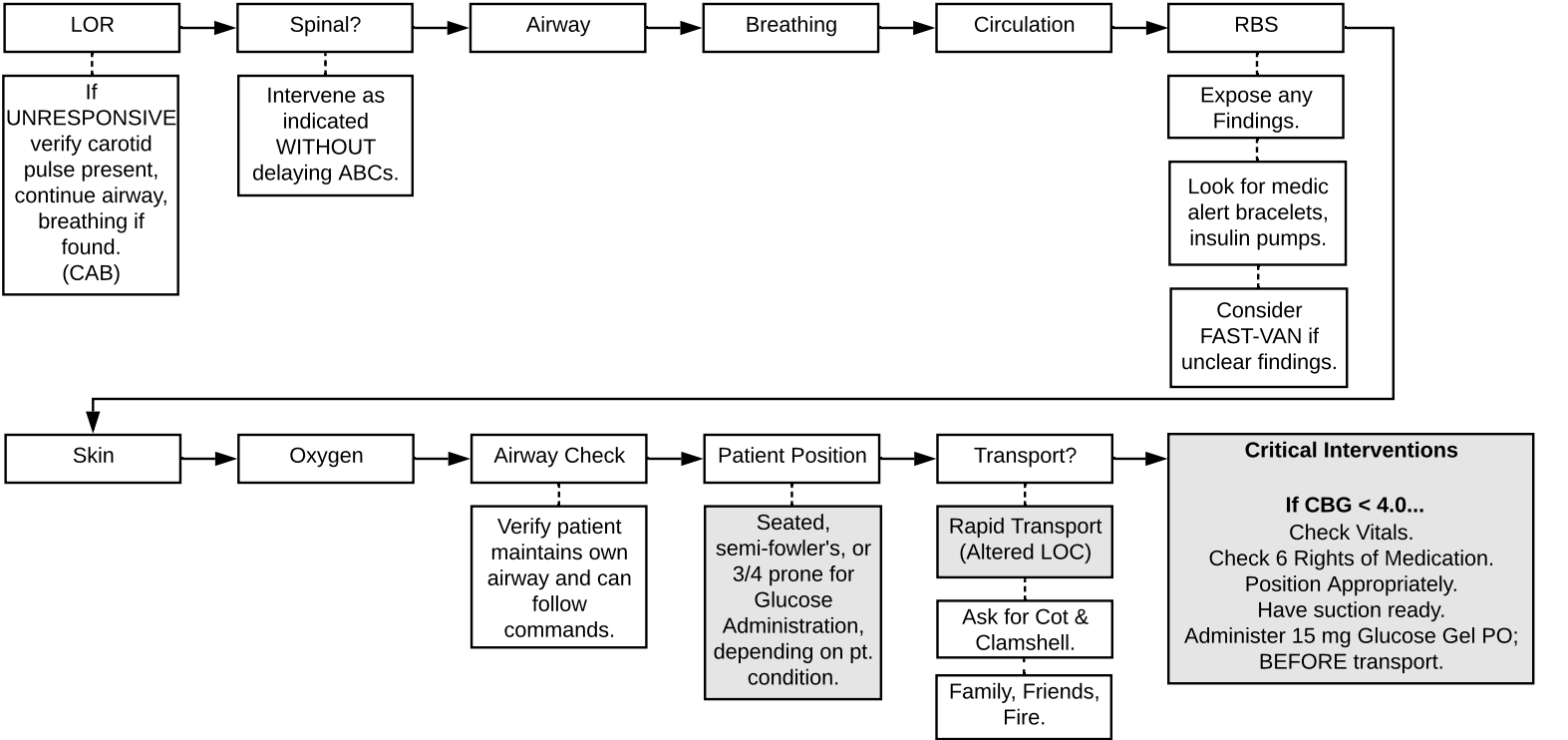
- * PEDIATRIC NALOXONE DOSING GUIDELINES: 0.1 mg / kg to max SINGLE dose of 0.4 mg and max TOTAL dose of 2.0 mg.
- * MAXIMUM DOSING BY INJECTION LOCATION: 5 ml VOLUME anterolateral thigh; 2 ml VOLUME deltoid.
- * Narcan comes in different concentrations - read medication bottles carefully to ensure accurate dosing per guidelines, as well as expiry date.
- * Narcan's half-life is significantly shorter than that of most opioids - at least 1 hour of monitoring post-treatment is required to prevent recurrence.
- * If continued no response to Naloxone, consider CBG check; treat as diabetic if < 4.0.
- * CAUTION: High doses of Naloxone increase risk of withdrawal symptoms, such as nausea, seizures and aggression.

Diabetic Emergencies

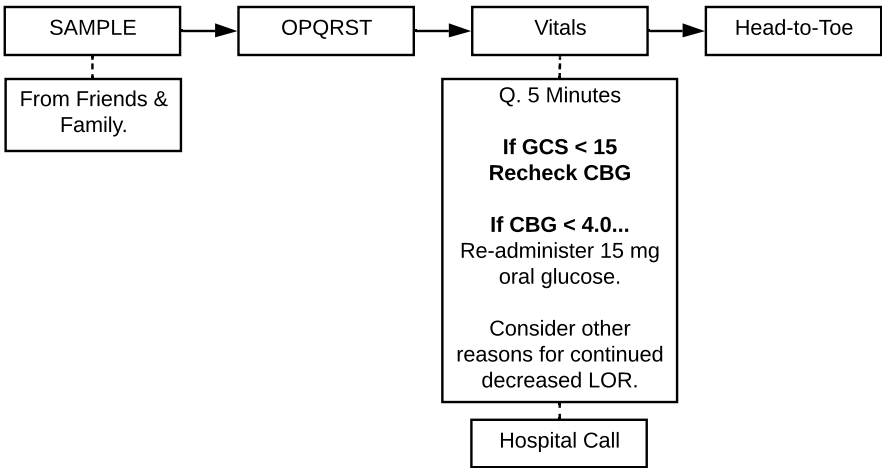
Scene Survey



Primary Survey



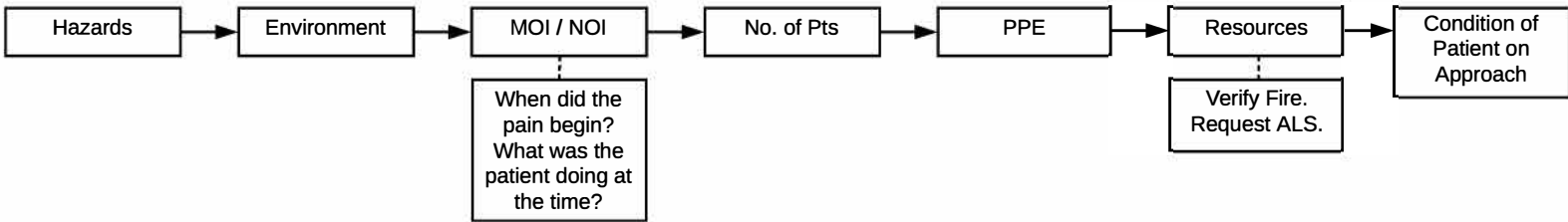
Secondary Survey



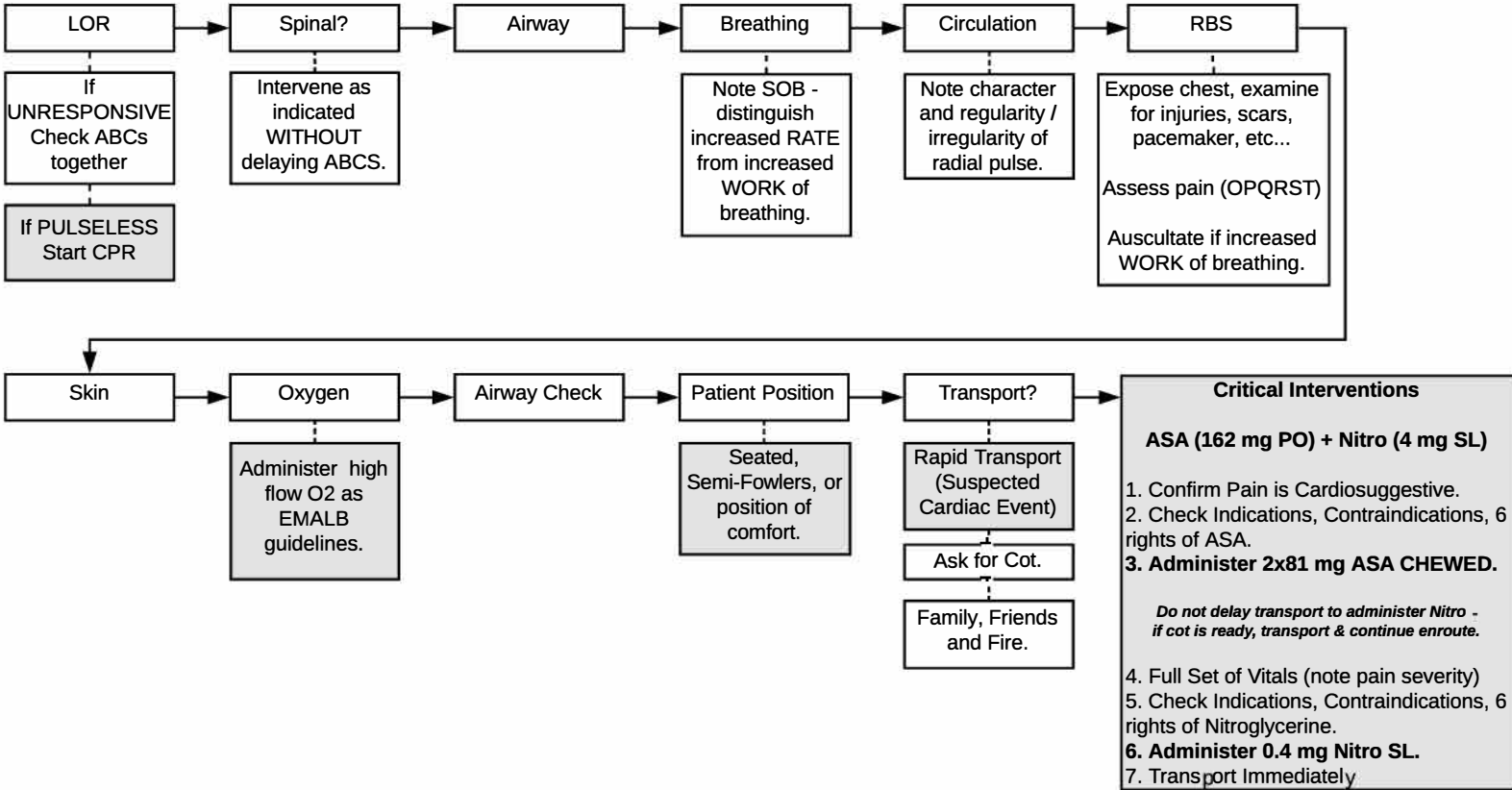
NOTES
 * Per EMALB Diabetic Emergency Treatment Guidelines: Oral Glucose can only be given if the patient is able to maintain their own airway and can follow commands.
 * For HYPERglycemic patients with altered LOR: Initiate rapid transport, and support ABCs while completing your assessment.

Cardiac Chest Pain

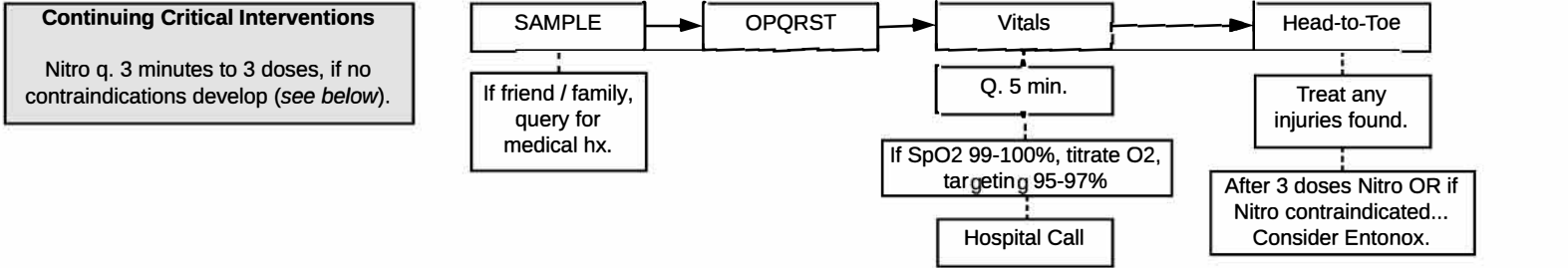
Scene Survey



Primary Survey



Secondary Survey

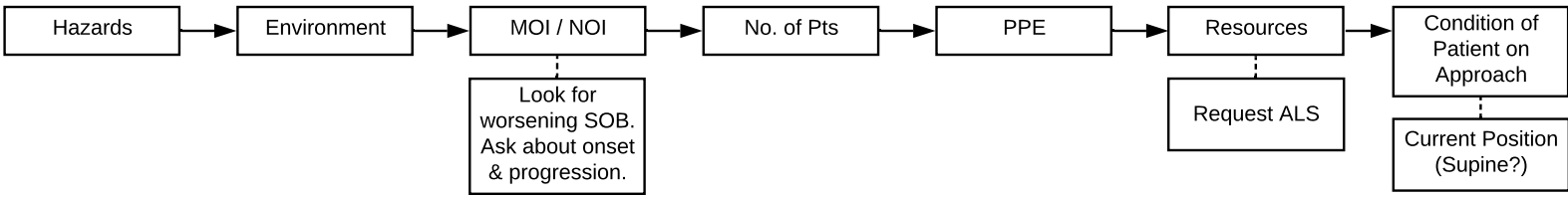


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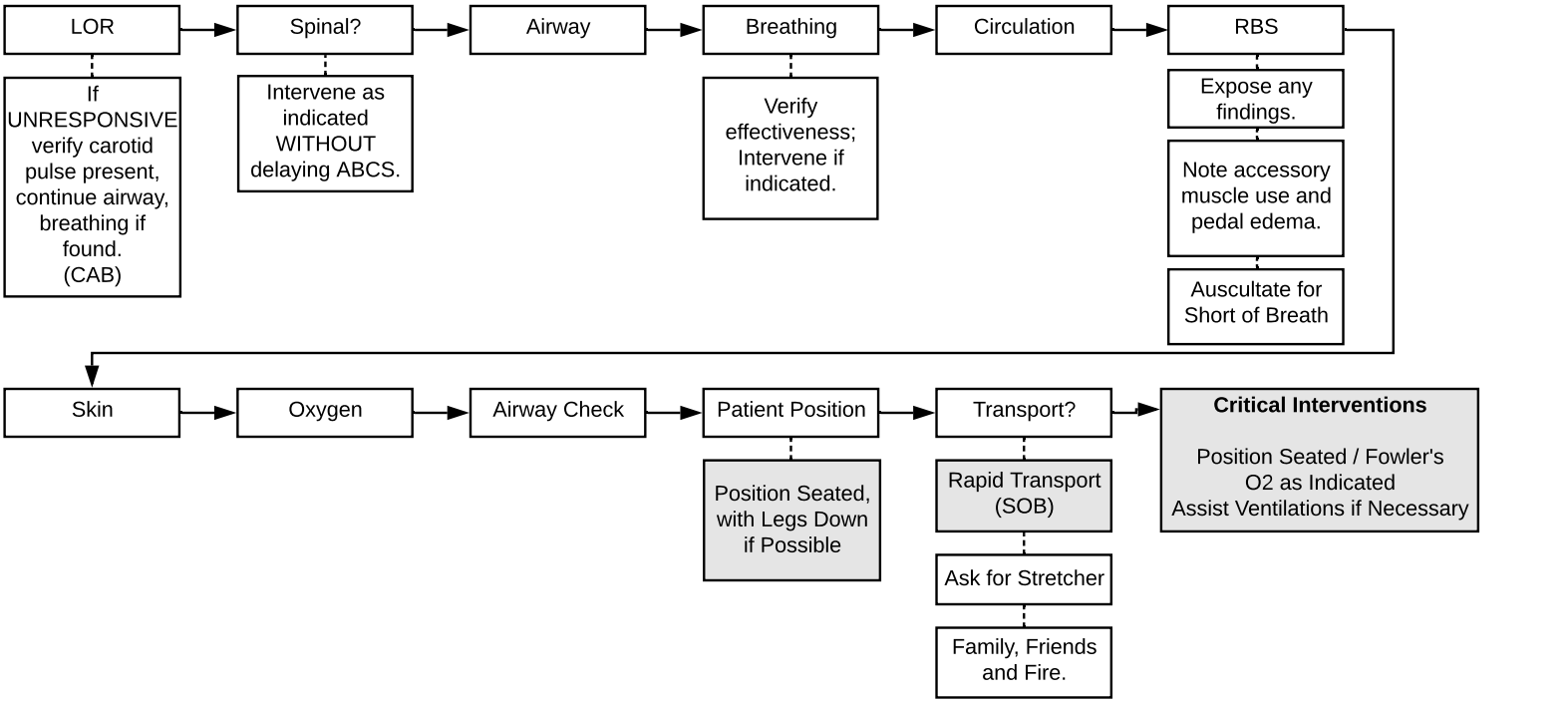
- * **ASA Contraindications:** Inability to swallow; allergy to ASA; active peptic ulcer or GI bleeding; pediatric patient; patient has taken ASA > 161 mg prior to arrival.
- * Patient outcome is better if definitive hospital treatment is provided as soon as possible, hence early transport is highly desirable. When equipment is ready load and transport, do not delay until after the first Nitroglycerin if ready to go; load and go and treat en route.
- * **Nitro Contraindications:** Patient as taken Viagra or Levitra in last 24 hours, or Cialis in last 48 hours; BP < 110 mmHg.
- * **If Pt. IS Prescribed Nitro:** Ensure that BP > 110 mmHg and check whether pain still persists before administrating repeat Nitroglycerin. Contact Clinically if need to go beyond 3 doses or if patient condition changes.
- * **If Pt. IS NOT Prescribed Nitro:** If systolic BP >110, with HR >50 and <150, Nitro may be administered after call to ER. Request permission for repeat doses.
- * If pain is completely relieved for more than 5 minutes, you may re-initiate the **Nitroglycerin** component (but not the ASA) if the patient's pain returns.
- * If the patient's pain persists after 3 doses of Nitro, or Nitro is contraindicated, consider Entonox. After 30 minutes, you may cease Entonox, wait five minutes, and reinitiate Nitro administration.

Congestive Heart Failure / Pulmonary Edema

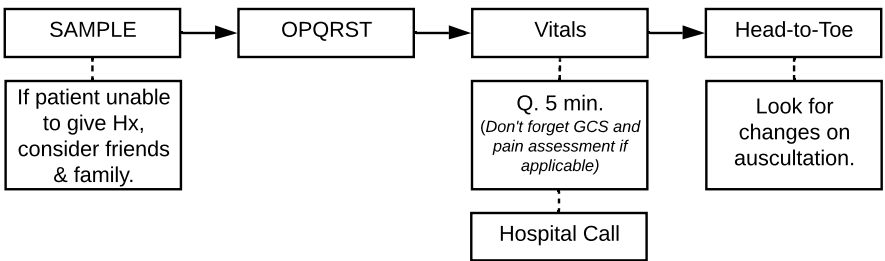
Scene Survey



Primary Survey



Secondary Survey

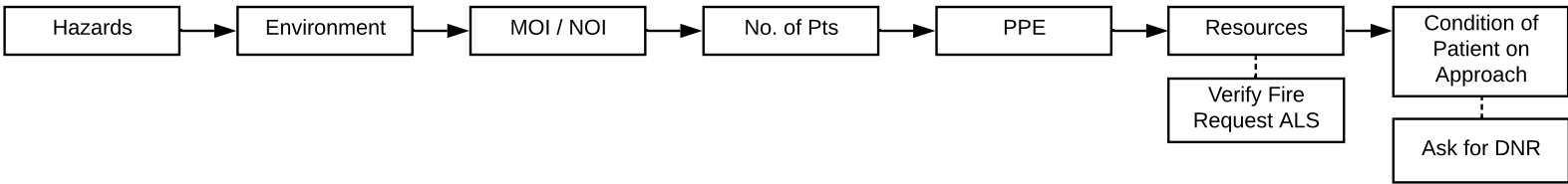


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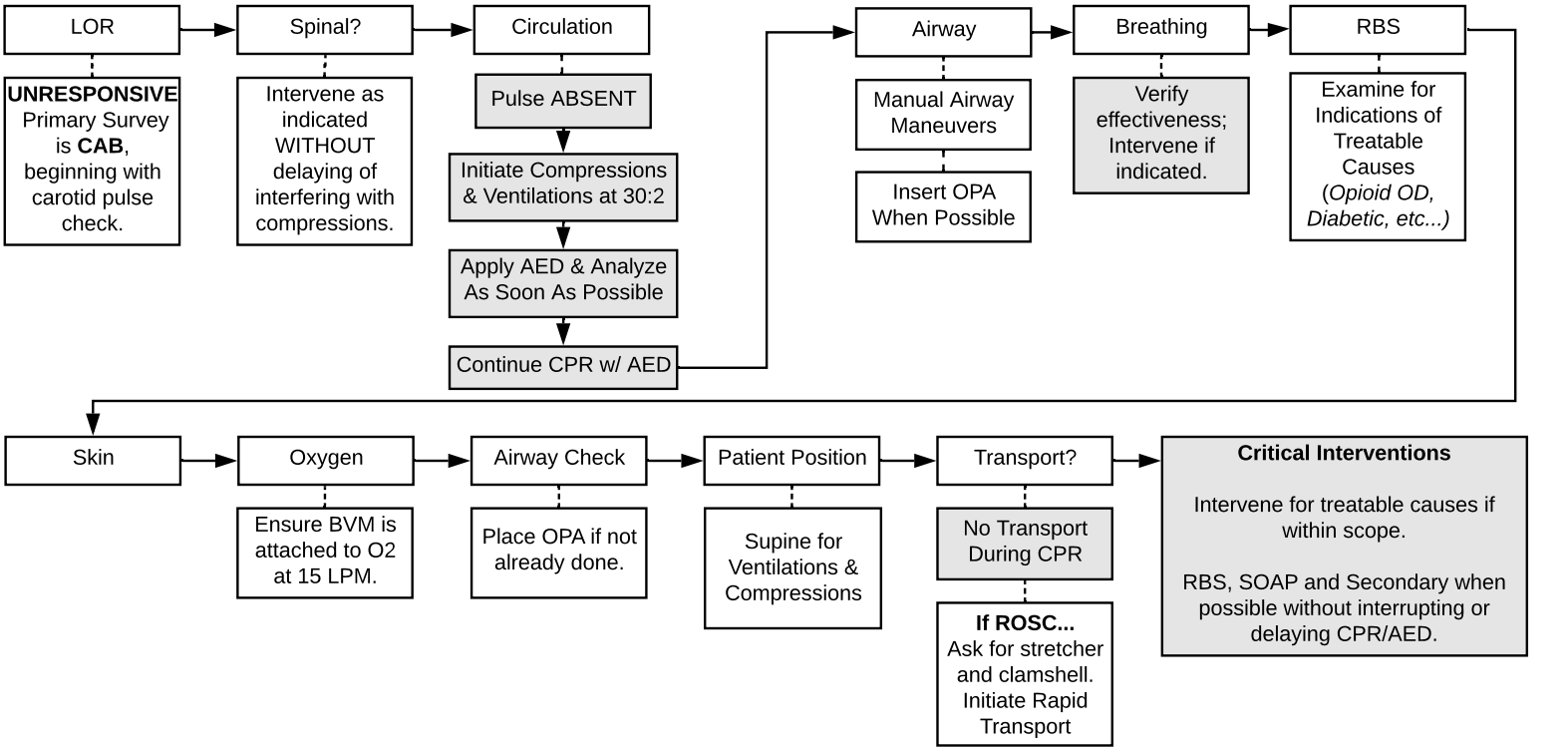
* Heart Failure is not the same as MI (Heart Attack) - if there is no chest pain, ASA IS NOT indicated.

Adult Cardiac Arrest

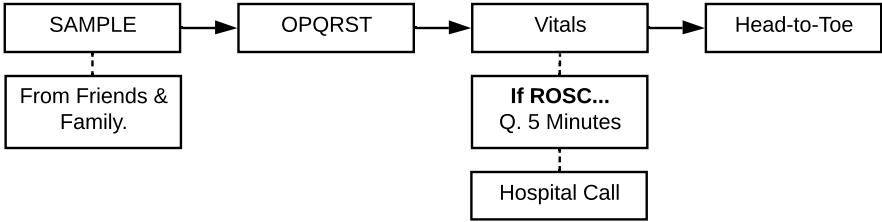
Scene Survey



Primary Survey



Secondary Survey



- NOTES**
- * Optimum chest compression rate is 100 -120 per minute at 5.0 to 6.0 cm depth (adjust to 1/3 to 1/2 chest diameter for smaller and bigger patients).
 - * Ratio is 30 Compressions to 2 Ventilations.
 - * Apply and use the AED as soon as possible.
 - * Single shocks – resume CPR immediately following delivery of a shock.
 - * No Shock Advised – resume CPR immediately.
 - * Continue resuscitation efforts on scene until the patient recovers, advanced care providers take over, you are presented with a valid “Do not Resuscitate” or No CPR order, or you receive orders to the contrary from your medical direction.
 - * Initiate a call to the emergency room physician after 15 minutes of high-quality CPR to determine transport, other treatments, or orders to cease resuscitation.
 - * **SUCTIONING:** Suction until airway is clear, maximum 10-15 seconds according to EMALB guidelines.
 - * **TREATABLE CAUSES:** If MOI / History indicates Hypothermia, Cardiac tamponade, Pulmonary embolism, Hypovolemia (Trauma, GI Bleed, ruptured AAA, etc.), or Poisoning, notify ER Physician at 15 minutes CPR/AED, and transport with CPR enroute if directed.
 - * **ASPHYXIAL ARREST:** Asphyxial arrest is due to hypoxia. Causes may include overdose, hanging, airway obstruction, smoke inhalation and drowning. Apply the AED while providing one-person CPR for 5 cycles (about 2 minutes) then analyze.

Pain Management Protocol

Scene Survey



Primary Survey



Transport Decision



Critical Interventions

Administering Entonox is NEVER a critical intervention, and transport should not be delayed for it. Entonox is administered at the end of the secondary survey for all patients, regardless of whether they are enroute or not.



Secondary Survey



Non-Critical Interventions

Administer Entonox at the end of the Head-to-Toe, usually BEFORE performing other non-critical interventions. Entonox has several cautions and contraindications, most of which are addressed in the course of a thorough and complete assessment.

Entonox Administration Notes

- * After verifying 6 rights of medication, explain medication and potential side effects, administer to patient until pain is relieved or side effects develop.
- * Always allow patient to self-administer with a bite stick; if patient becomes sedated and unable to self-administer, do not attempt to administer.
- * Consider using with nasal cannula.
- * If patient becomes cyanotic or short of breath, discontinue Entonox and apply high flow O2.

Indications

- * Any Pain, Regardless of Severity

Contraindications

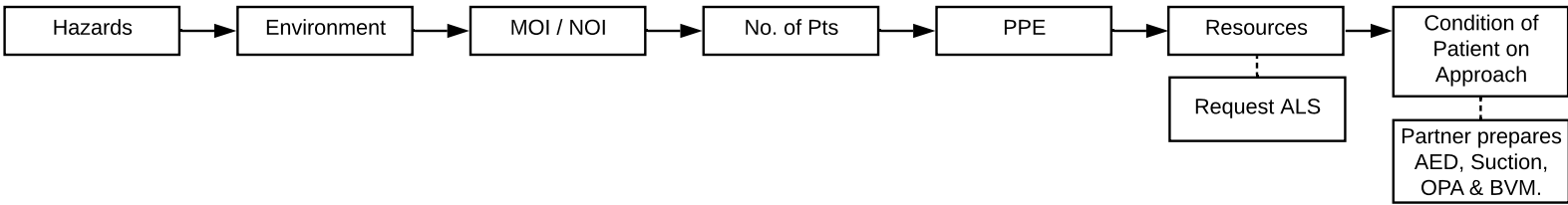
- * Pneumothorax (ruled out on auscultation)
- * Air Embolism (Query IV drug use and recent surgeries.)
- * Inability to Comply (Pt is alert and oriented - GCS 15.)
- * Nitro in Last 5 Minutes
- * Decompression Sickness (Query Diving or Flying without complications.)
- * Inhalation Injury
- * Enclosed Space (If in ambulance, ensure exhaust is on.)

Cautions

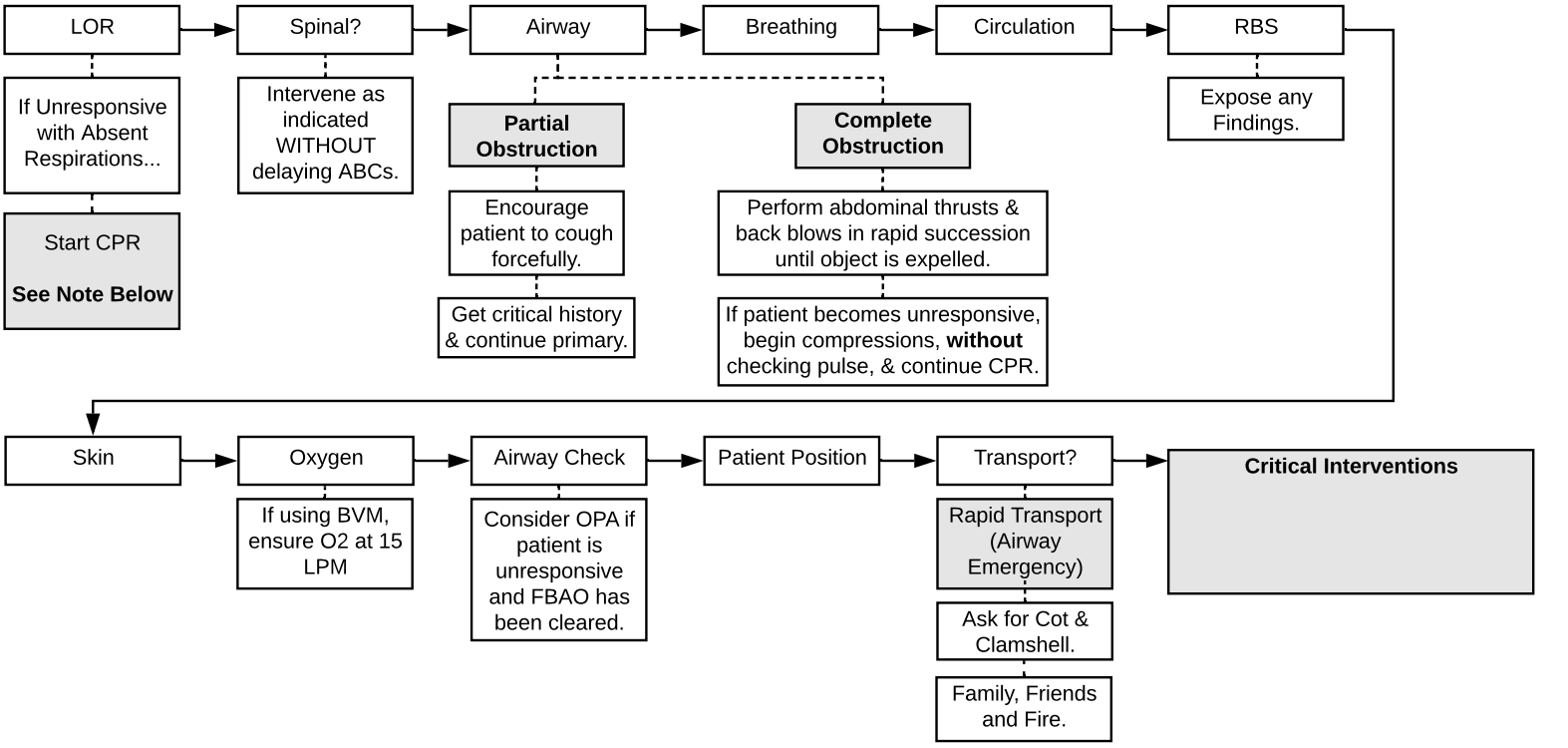
- * Shock
- * Abdominal Distension (Query cause.)
- * Depressant Drugs (Able to comply? Observe carefully.)
- * Maxillo-Facial Injuries (Are they able to use the bite stick without aggravating their injuries?)
- * COPD (Observe carefully for cyanosis / SOB,)

Foreign Body Airway Obstruction

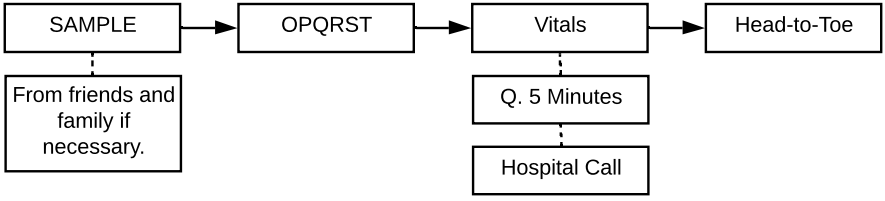
Scene Survey



Primary Survey



Secondary Survey

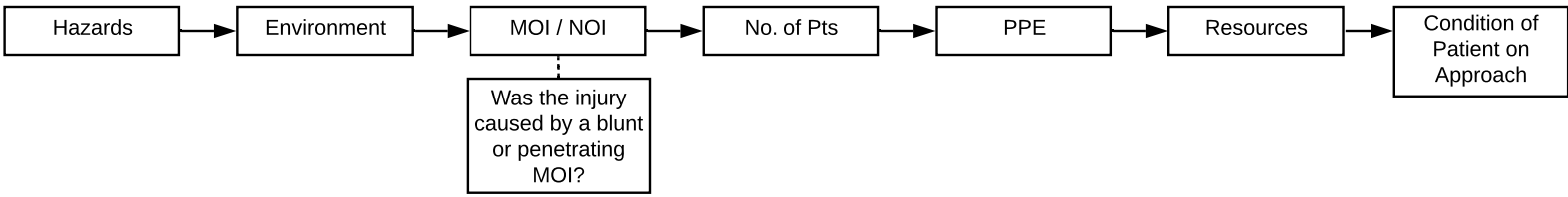


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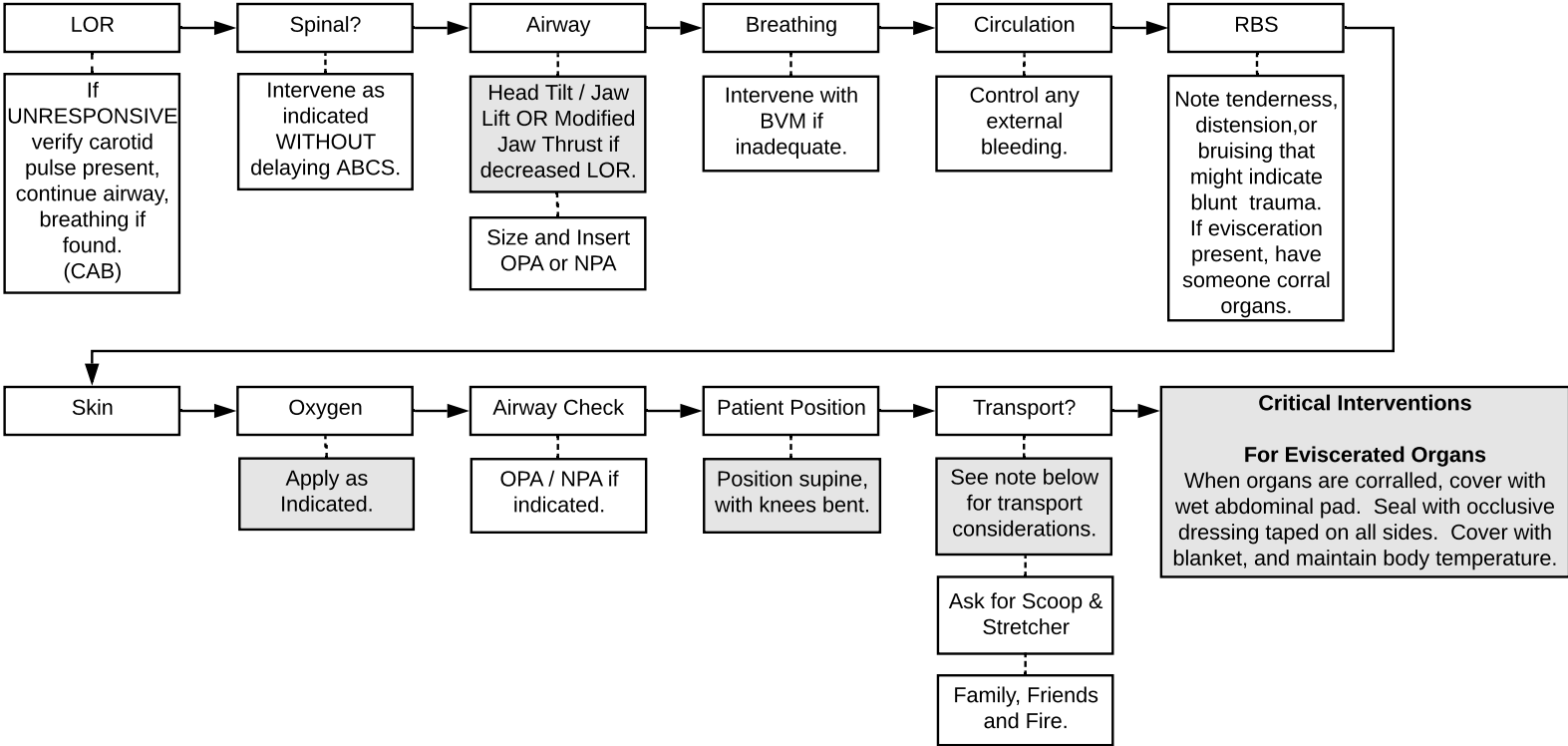
- * **For UNRESPONSIVE** suspected FBOA: attempt ventilation BEFORE compressions. Attempt first ventilation - if no air entry or air blows back, reposition head and confirm jaw lift, then attempt second ventilation. If second ventilation is unsuccessful, begin compressions and continue CPR.
 - After each round of 30 compressions, inspect for object in mouth prior to attempting 2 ventilations.
- * **For INFANTS (< 1 y/o)**: Deliver 5 back blows alternating with 5 chest thrusts, until object is expelled.
- * If abdominal thrusts are not successful, or not practical, on adults, consider chest thrusts.

Abdominal Injuries

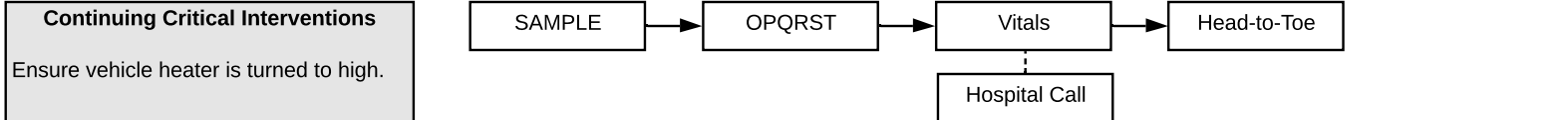
Scene Survey



Primary Survey



Secondary Survey



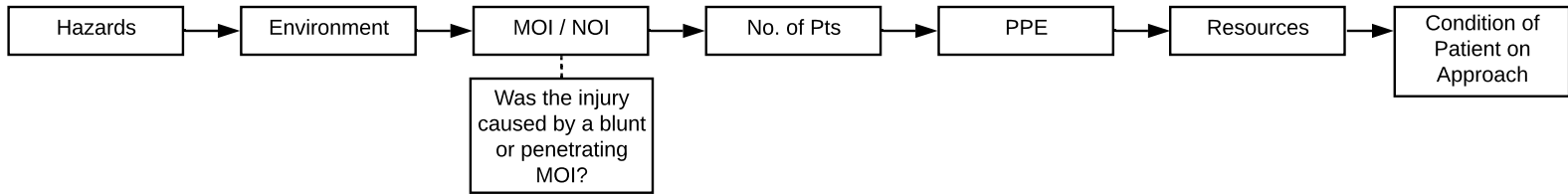
NOTES

* **Transport Considerations:** The following findings in abdominal injury patients indicate the patient is **unstable**, indicating rapid transport:

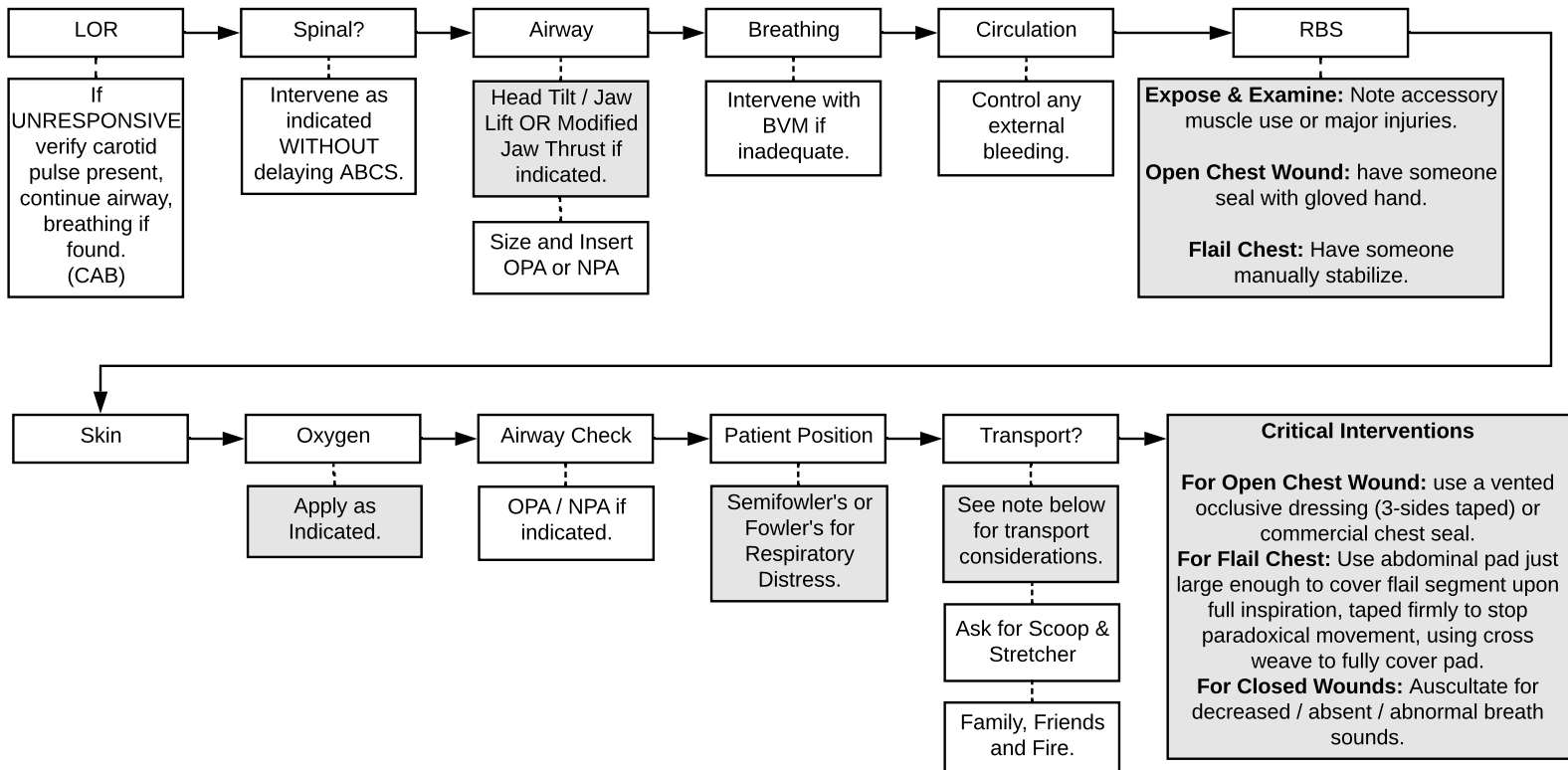
- * Altered LOC.
- * Rapid, shallow breathing.
- * Weak, rapid, or absent radial pulses.
- * Pale, cool, clammy skin.
- * Life threatening injuries.

Chest Injuries

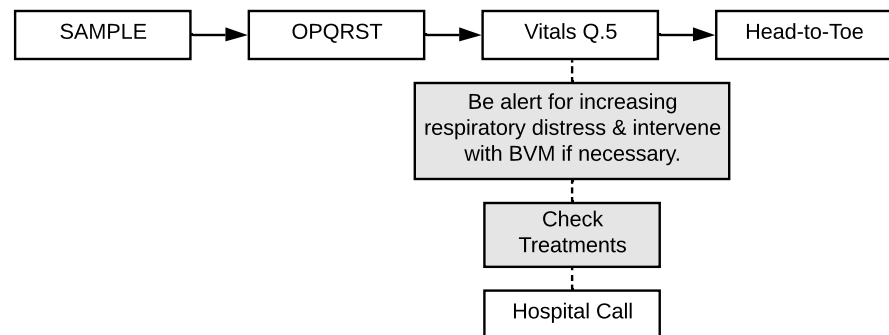
Scene Survey



Primary Survey



Secondary Survey



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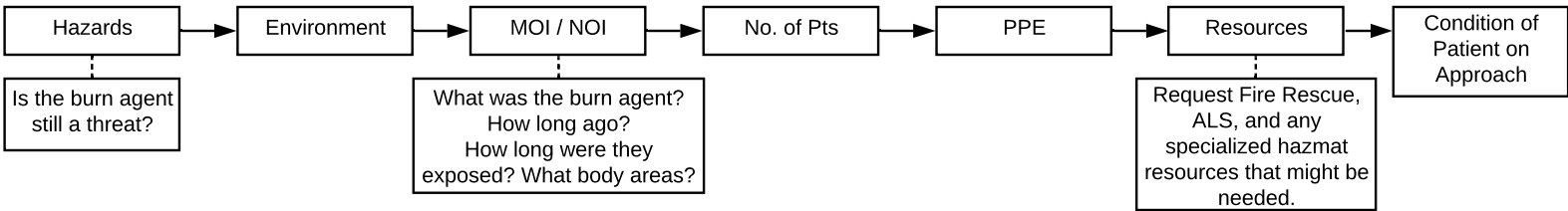
* **Transport Considerations:** The following findings suggest the chest injury patient is **unstable**, indicating rapid transport:

- * May have altered LOC.
- * Difficulty maintaining airway.
- * Accessory muscle use.
- * Weak, rapid or absent radial pulse.
- * Life threatening injuries.
- * Pale, cool and clammy skin.

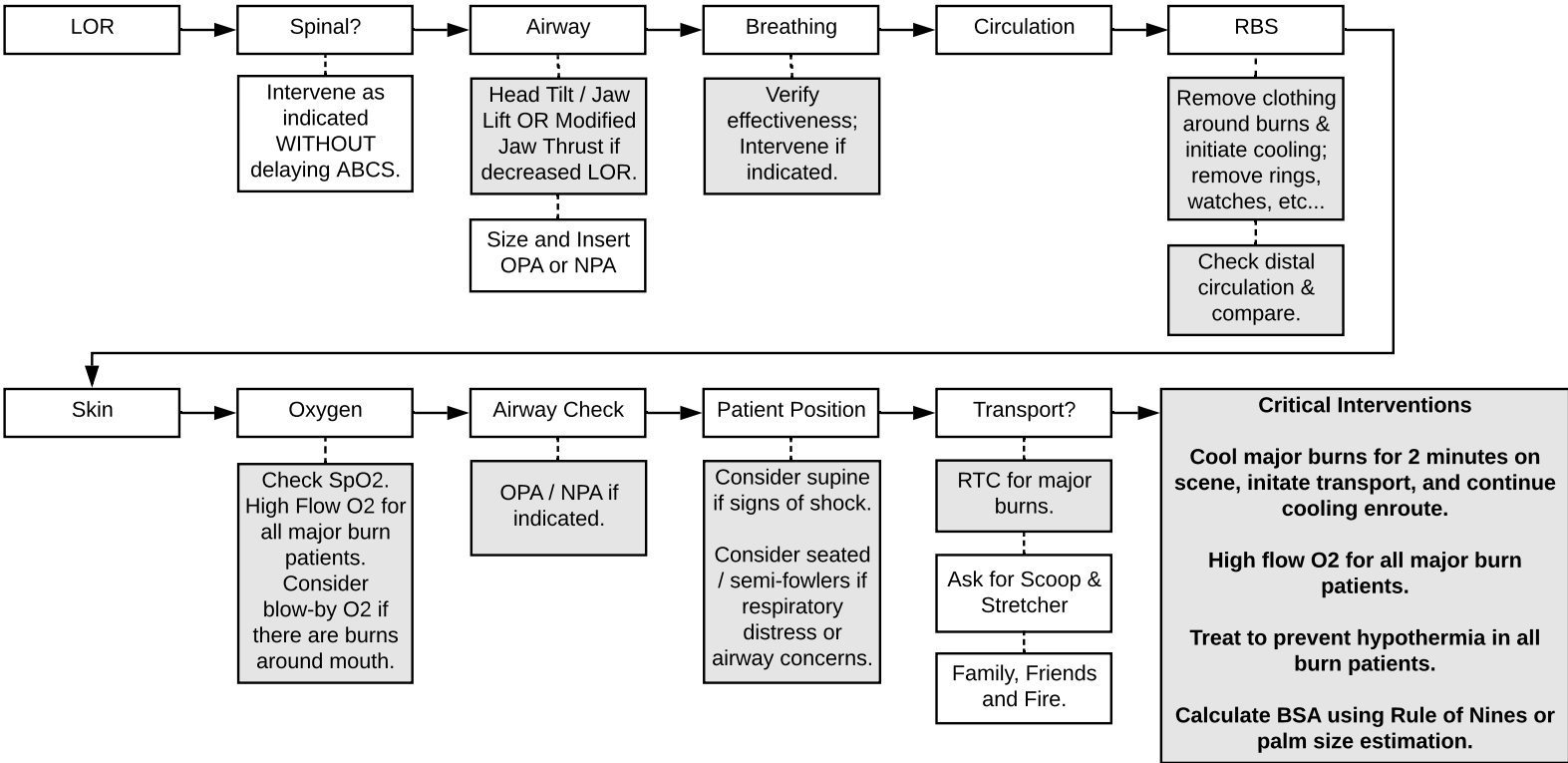
Multiple Puncture Wounds: If your patient has multiple puncture wounds to the chest, use one 3-sided occlusive dressing on EACH side of the chest, fully sealing all other wounds with occlusive dressings that are taped on ALL FOUR sides.

Major Burn Management

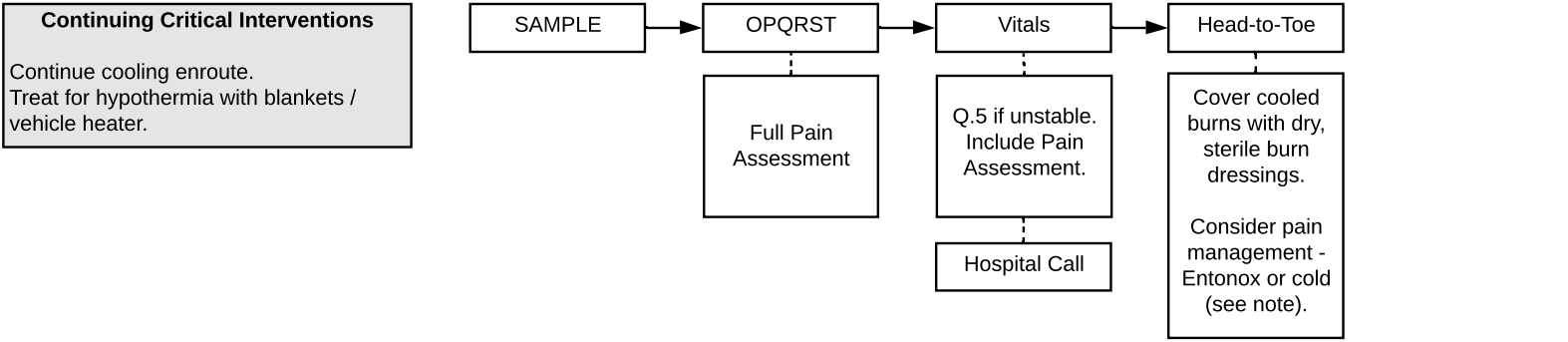
Scene Survey



Primary Survey



Secondary Survey

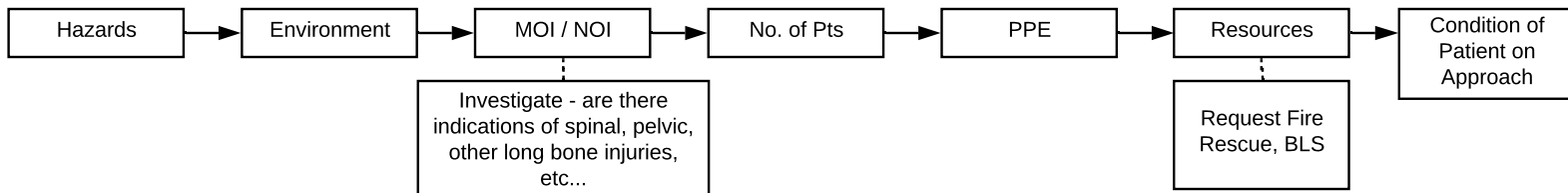


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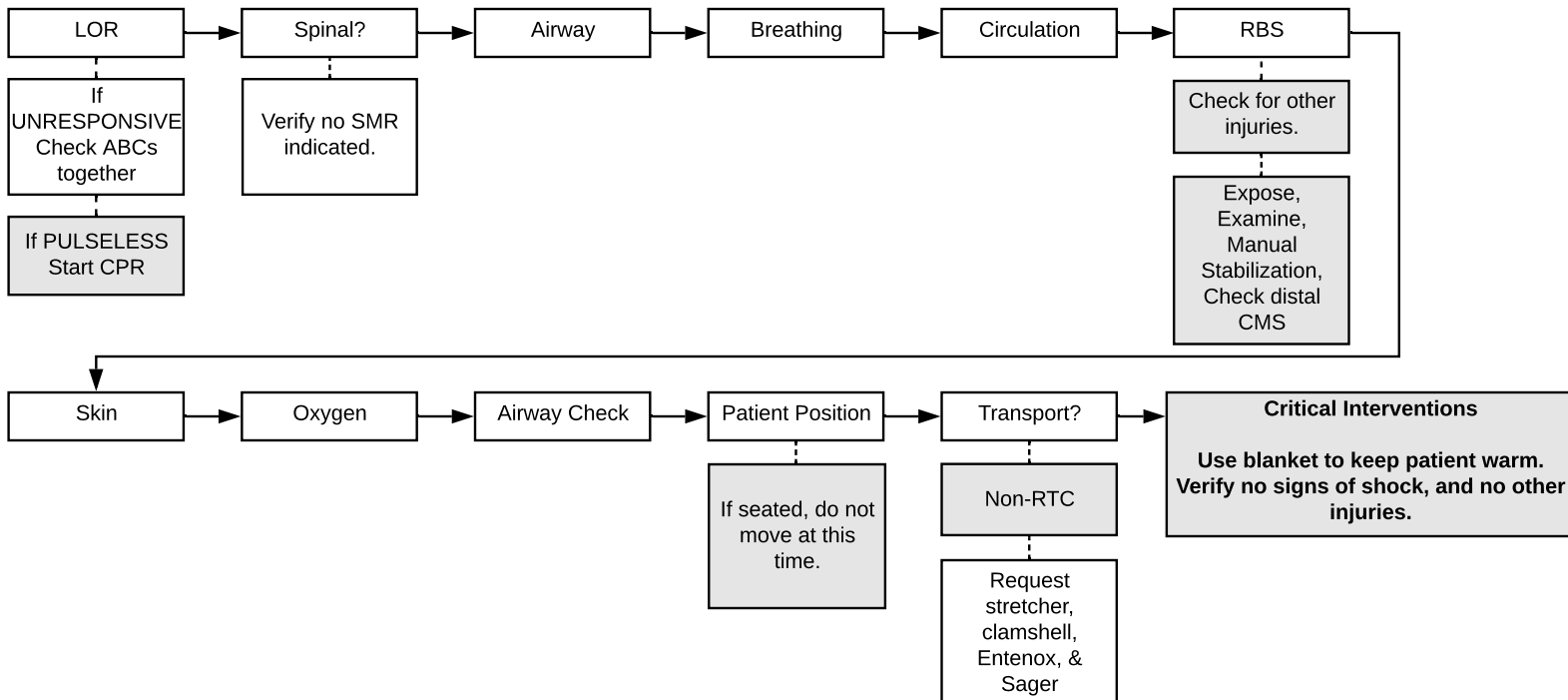
- * Major burn patients are at significant risk for shock. Be alert for signs and symptoms, and treat accordingly.
- * Major burn patients are at significant hypothermia risk, aggravated with cooling. Cool large area burns intermittently, moving around the burn area, and treat aggressively to prevent heat loss.
- * Entonox is indicated for burn patients, unless there is also an inhalation injury (per Entonox contraindications).
- * Applying cold packs for pain control is appropriate, UNLESS there is impairment of distal circulation.
- * Chemical burns must be flushed for 20-30 minutes; be wary of contaminating other body areas, responders, or equipment.
- * Electrical burns are cooled as thermal burns. See Electrical Contact Workflow for full treatment guideline.

Isolated Femur Fracture

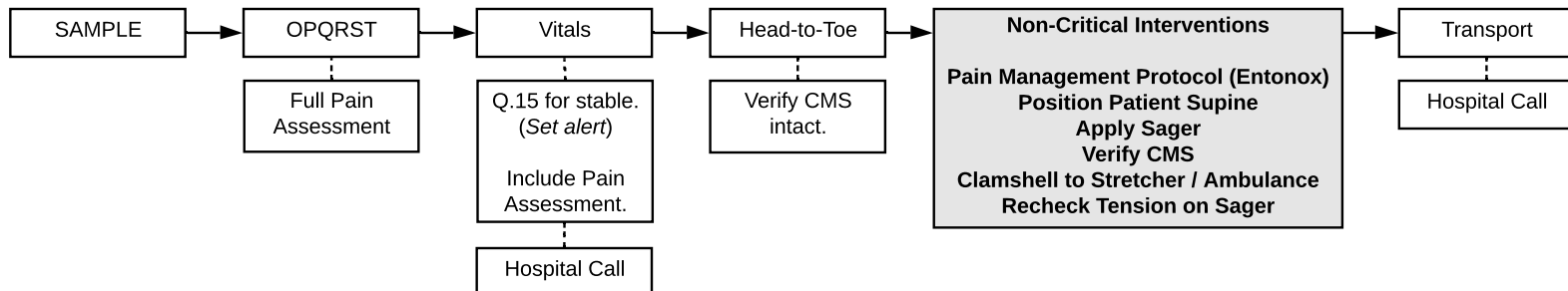
Scene Survey



Primary Survey



Secondary Survey

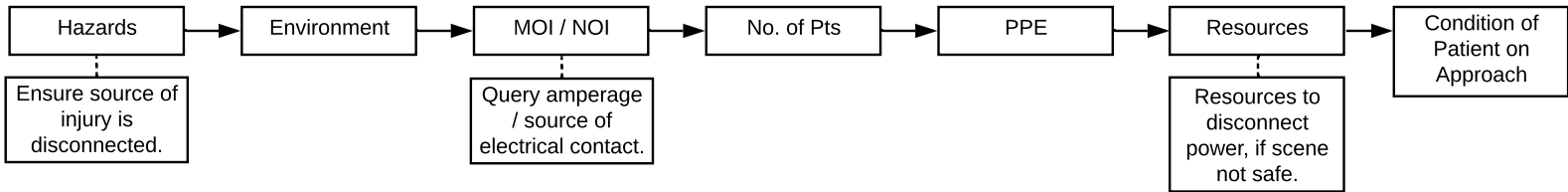


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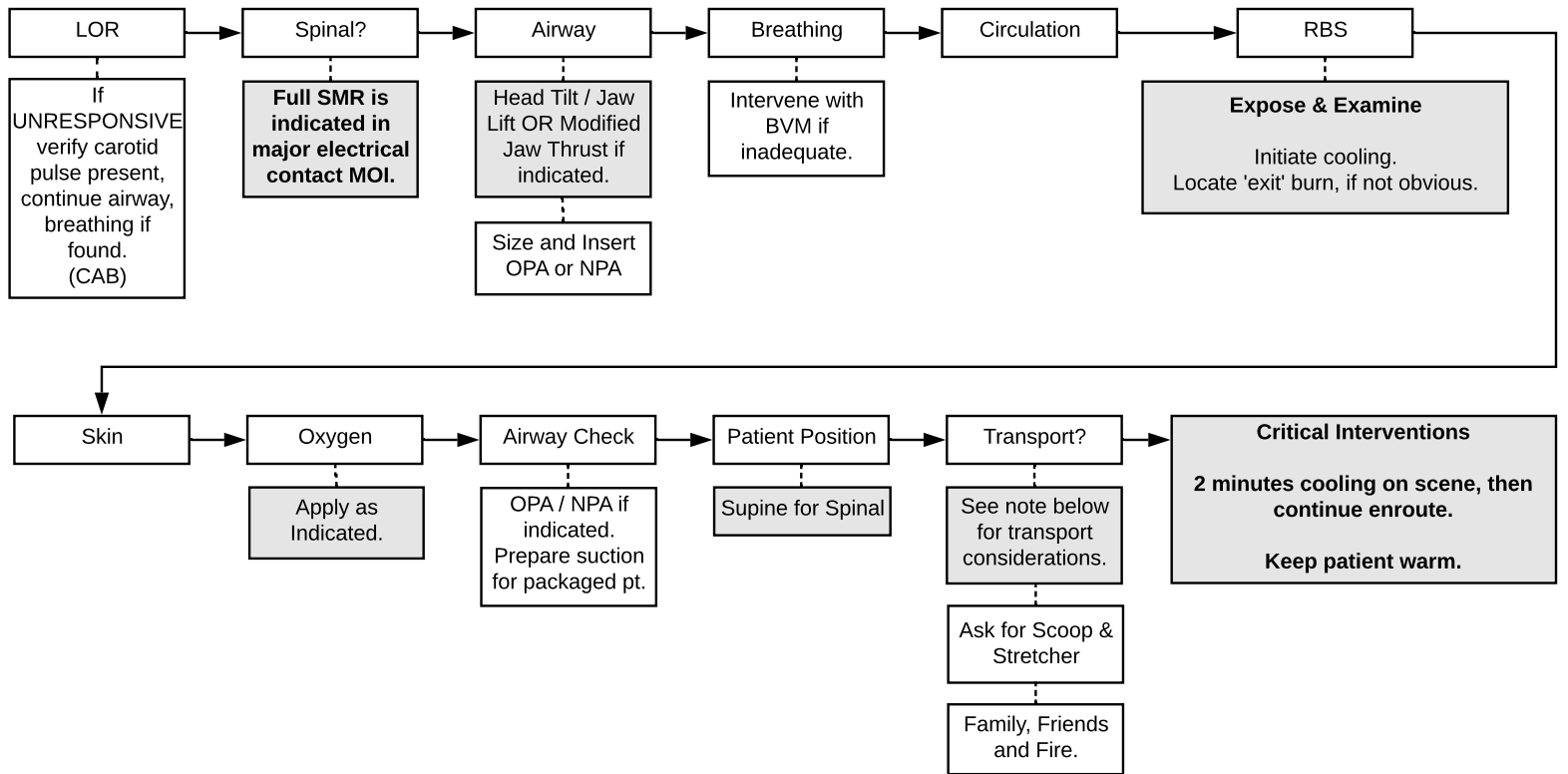
- * Traction Splint used only for MID-THIRD FEMUR fracture, open or closed. Verify in RBS, state when applying Sager Traction Splint.
- * Entenox at END of secondary, BEFORE repositioning or applying traction splint.
- * Traction splint tension at 10% of body weight, to maximum of 15 lbs for CLOSED fracture, maximum of 5 lbs for OPEN fracture.

Major Electrical Contact

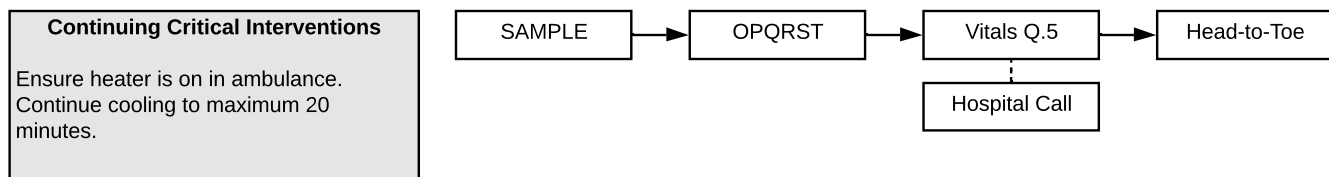
Scene Survey



Primary Survey



Secondary Survey



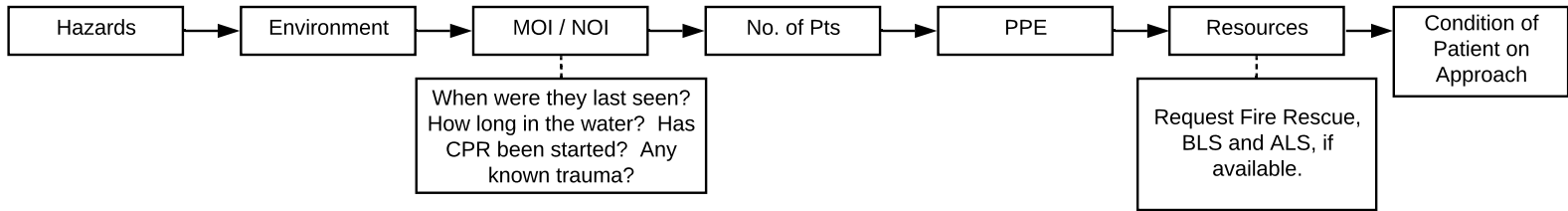
NOTES

* **Transport Considerations:** The following findings suggest a patient who has had an electrical contact is **unstable**, indicating rapid transport:

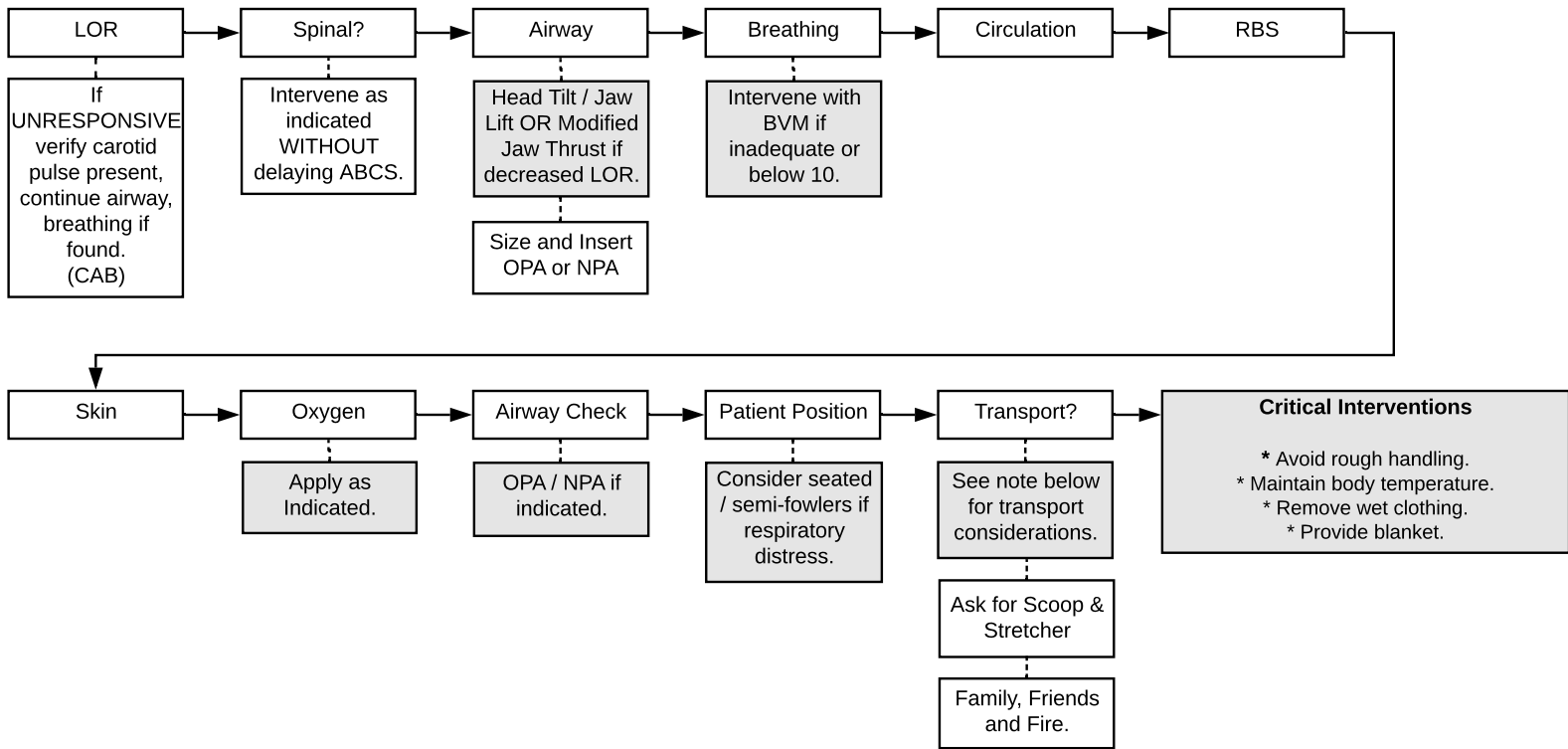
- * Altered LOR.
- * Was in cardiac arrest.
- * Difficulty maintaining airway.
- * Respirations require assistance.
- * Irregular, or absent radial pulse.
- * Muscle spasms.
- * Major burns.

Drowning / Near Drowning

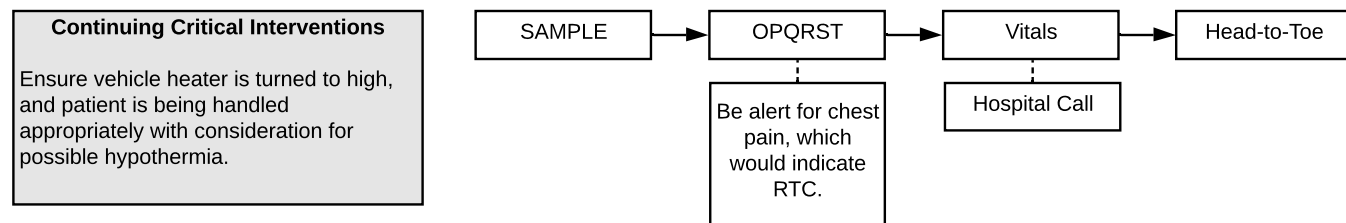
Scene Survey



Primary Survey



Secondary Survey



NOTES

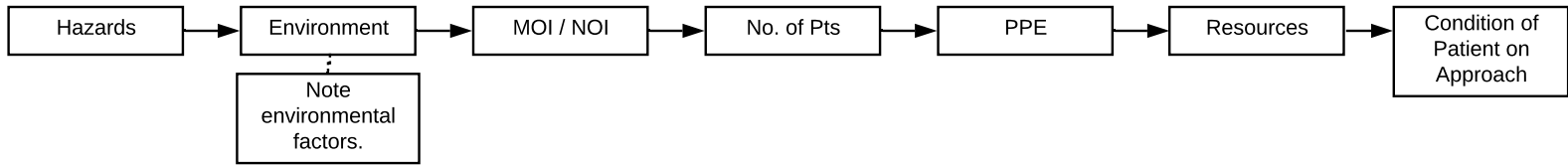
* Transport Considerations: The following findings in drowning patients indicate the patient is **unstable**, indicating rapid transport:

- * Altered LOR or unconscious.
- * Possible C-spine injury.
- * Difficulty maintaining airway.
- * Shortness of breath, noisy or absent respirations.
- * Weak, rapid or absent radial pulse.
- * Cyanosis, seizure activity, or chest pain.

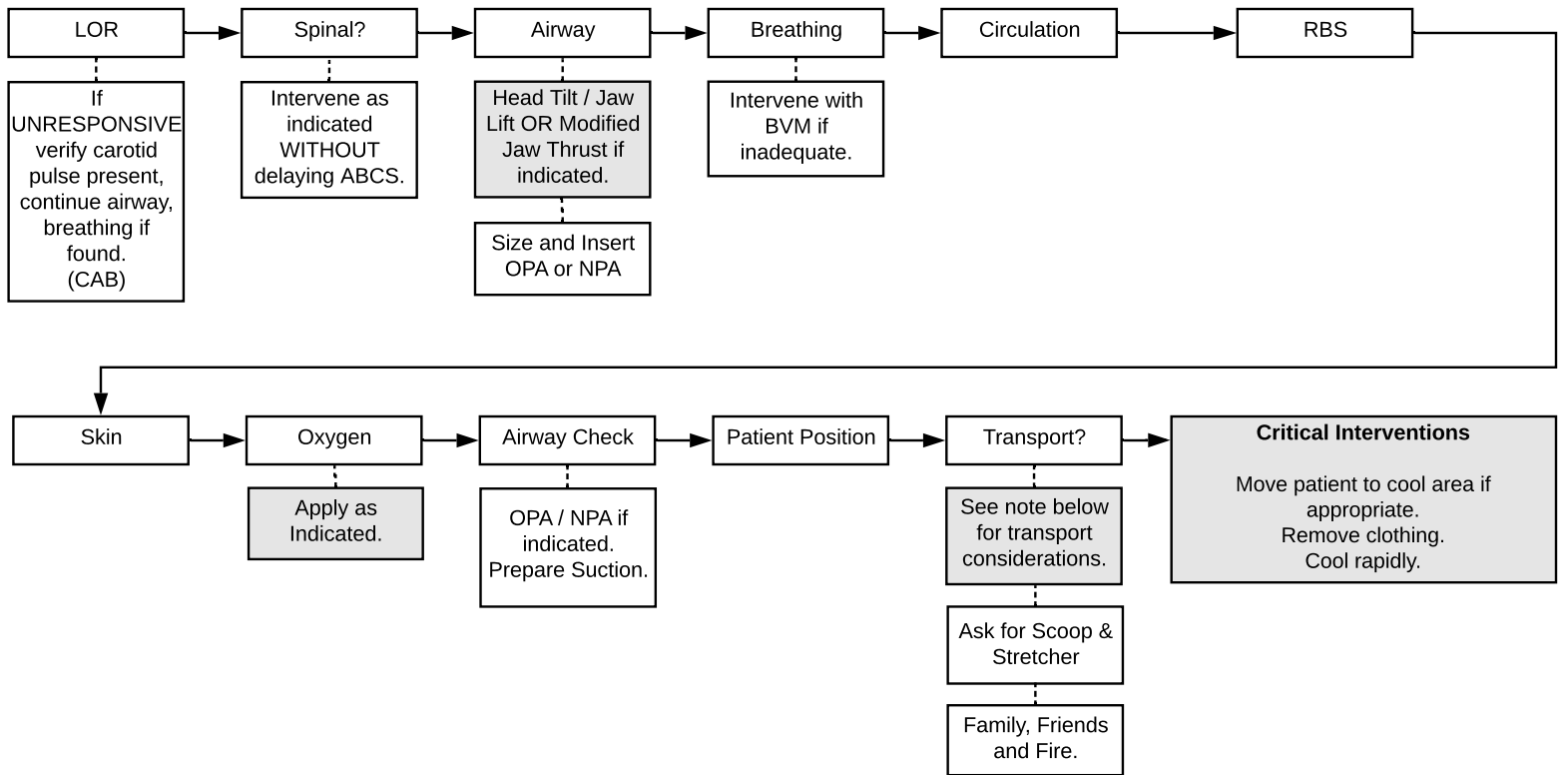
* Conscious Patients with no airway, breathing or circulation deficits, no altered LOR, no spinal concerns, and no other critical findings can be assessed and treated on scene, before transport.

Heat Exhaustion / Heat Stroke

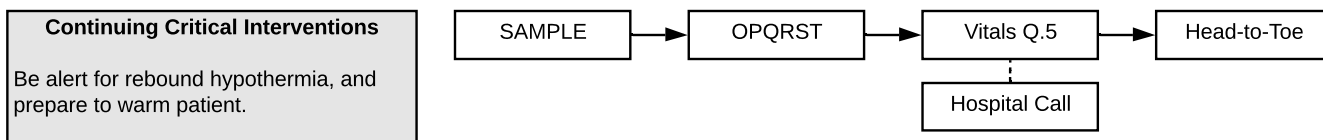
Scene Survey



Primary Survey



Secondary Survey



NOTES

* **Transport Considerations:** The following findings suggest a patient who has had a heat-related emergency is **unstable**, indicating rapid transport:

- * Fainting spells or unconsciousness.
- * Irregular or panting respirations.
- * Weak radial pulse.
- * Hot, dry or ashen skin.

* **If you suspect the patient has heat STROKE, treat as unstable and initiate rapid transport.**