ALL-LEVEL CONSOLIDATED

Field Treatment Protocols

McLean County Area EMS System

Version 3.1 (04/01/2025)

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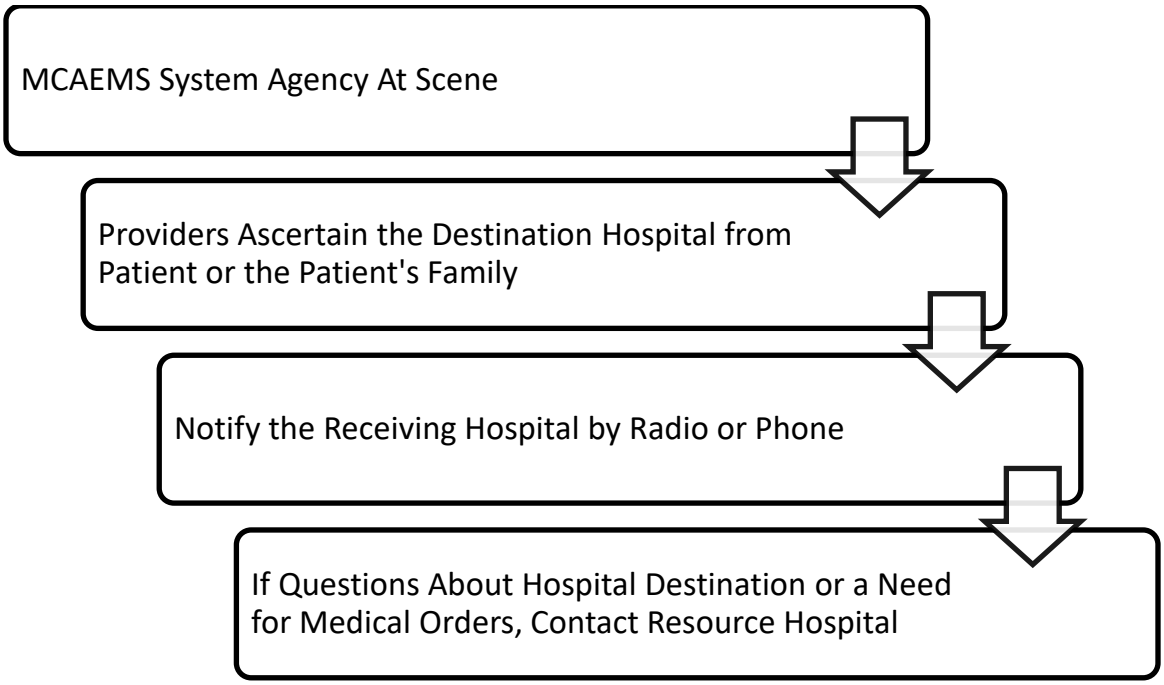
Table of Contents

Acceptable Abbreviations

1°	first degree
2°	second degree
3°	third degree
♀	female
♂	male
@	at
abd	abdomen
AC	antecubital
ACS	acute coronary syndrome
AED	automated external defibrillator
AEMT	advanced emergency medical technician
a-fib	atrial fibrillation
a-flutter	atrial flutter
AHA	American Heart Association
ALS	advanced life support
AM	between 12 midnight & 12 noon
A.M.A.	against medical advice
AMI	acute myocardial infarction
amt	amount
ant	anterior
approx.	approximately
ARC	American Red Cross
AROM	active range of motion
ASA	aspirin (acetylsalicylic acid)
AV	arteriovenous (as in AV graft or AV shunt)
BLS	basic life support
BP or B/P	blood pressure
BPM	beats per minute
BVM	bag valve mask
°C	degrees Celsius
CABG	coronary artery bypass graft
CAO	conscious, alert, oriented
CCT	Critical Care Transport
CHF	congestive heart failure
CNS	central nervous system
c/o	complaint(s) of
COPD	chronic obstructive pulmonary disease
CP	chest pain
CPAP	continuous positive airway pressure
CPR	cardiopulmonary resuscitation
CVA	cerebrovascular accident (stroke)
Δ	change
D.A.S.	dead at scene
D/C	discontinue
dL	deciliter
DNR	do not resuscitate (order)
D.O.A.	dead on arrival
D5W/D10W	5%/10% dextrose in water
ECG or EKG	electrocardiogram
ECRN	emergency communications radio nurse
E.D.	emergency department
EMR	emergency medical responder
EMS	emergency medical services
EMT	emergency medical technician
EMT-B	emergency medical technician - basic
EMT-I	emergency medical technician - intermediate
EMT-P	emergency medical technician - paramedic
ET or ETT	endotracheal tube
ETA	estimated time of arrival
ETOH	alcohol
°F	degrees Fahrenheit
F.B.	foreign body
FR	first responder
FR-D	first responder – defibrillation
ft	foot/ feet
GCS	Glasgow coma score
GERD	gastro esophageal reflux disease
GI	gastro-intestinal
GLF	ground-level fall
grav.	Gravida (number of pregnancies)
GSW	gunshot wound
gtts	drops
hx	history
ICU	intensive care unit
IDDM	insulin dependent diabetes mellitus
ILS	intermediate life support
IM	intramuscular
IN	intra-nasal
IO	intraosseous
irreg	irregular
IV	intravenous
IVP	intravenous push
J	Joules
JVD	jugular vein distention
kg	kilogram
l	liter
lb	pound
LLQ	left lower quadrant
LMP	last menstrual period
LSB	long spine board
LOC	loss of consciousness
lpm	liters per minute

LR	Lactated Ringer's
lt or Ⓛ	left
LUQ	left upper quadrant
MAE	moves all extremities
MCA	motorcycle accident
MCAEMS(S)	McLean County Area EMS (System)
mcg	microgram
mEq	milliequivalent
mg	milligrams
M.I.	myocardial infarction
min	minute
ml	milliliter
mmHg	millimeters of mercury
MVC	motor vehicle collision
NC	nasal cannula
NIDDM	non-insulin dependent diabetes mellitus
NKA	no known allergies
NG	nasogastric
NRB	nonrebreather mask
NS	normal saline (0.9% saline)
NSR	normal sinus rhythm
NTG	nitroglycerin
N/V/D	nausea/ vomiting/ diarrhea
Ø	no, none
O_2	oxygen
O.D.	right eye
OD	overdose
OG	Orogastric
O.S.	left eye
O.U.	both eyes
P	pulse
para	children (number of live births)
PAT	paroxysmal atrial tachycardia
PCS	pediatric coma score
P.E.	physical exam
PE	pulmonary embolism
PEA	pulseless electrical activity
per	by way of
PERRL	pupils equal round and react to light
PM	between 12 noon & 12 midnight
po	per os (by mouth)
POLST	Physician Orders for Life Sustaining Treatment
pr	per rectal
PSVT	paroxysmal supraventricular tachycardia
pt.	patient
PTCA	percutaneous thrombolytic coronary angioplasty
PVC	premature ventricular contraction
PVD	peripheral vascular disease
Q or q	every
RR	respiratory rate
ROM	range of motion
ROSC	return of spontaneous circulation
rt or Ⓡ	right
RUQ	right upper quadrant
SBP	systolic blood pressure
SL	sublingual
SMO	standing medical order
SMR	spinal motion restriction
SpO2	saturation of peripheral oxygen (pulse oximetry)
SQ	subcutaneous
SVT	supraventricular tachycardia
T	temperature
TBSA	total body surface area
TKO	to keep open
TXA	Tranexamic Acid
VF	ventricular fibrillation
VT	ventricular tachycardia
X	times
y.o.	year old

Communications Flow



NO RESPONSE FROM RECEIVING HOSPITAL

If you receive no response from the destination hospital after repeated attempts, contact the Resource Hospital for patient report. If the Resource Hospital is the hospital not responding, contact the Alternate Resource Hospital.

A written explanation (Incident Report Form) of each occurrence of radio communication failure must be completed by the involved prehospital provider and submitted to the MCAEMS System Office within 24 hours after the occurrence.

COLOR NOTES

EMR/FR = GREEN

BLS = BLUE

ILS = PURPLE

ALS = RED

Patient Radio Report

Contact should be made with the receiving hospital in a timely manner and the following information about each patient should be relayed.

1) MERCI Identifier, highest level of care available on the unit (BLS, ILS, ALS)
2) Age, sex,
3) If the patient's immediate condition is life-threatening and/or the patient is hemodynamically unstable, please state that you have a critical patient.

4) Present complaint:
   a) Chief complaint/mechanism of injury/nature of illness.

5) Physical exam
   a) Loss of consciousness/mental status (GCS if trauma patient
   b) Pertinent exam findings
   c) Blood pressure
   d) Pulse
e) Respirations/lung sounds

6) ECG/12-lead findings, if applicable and pertinent.

7) Treatment provided and responses to treatment

8) ETA to hospital (actual transport time).

Points to remember:

- Transmit patient's initials only if requested by receiving hospital. If a name is requested, call receiving hospital on a secure telephone line.
- Radio transmissions need to be concise and **include only pertinent information.**
- If patient's condition precludes gathering all the above information, an initial report may be made with pertinent information. Then contact with more information and an update in patient's condition.
- If patient meets trauma, STEMI, sepsis or stroke criteria, receiving hospital shall be notified immediately with an early notification.

Miscellaneous Guidelines

AV FISTULAS, SHUNTS, AND GRAFTS

- Can be utilized in cardiac arrest if an IO cannot be established. Refer to *AV Fistulas, Shunts, and Grafts* procedure.

BLIND AIRWAY INSERTION DEVICES (BIAD)

- Only BIADs approved by the EMS System may be utilized.

IV ATTEMPTS

- No more than two (2) peripheral IV attempts shall be made while at scene. Up to two (2) more attempts may be made while enroute, if indicated. Peripheral IVs include IVs initiated on the extremities.
- Except during actual entrapment, all vascular access attempts on "load and go" patients shall be made while enroute to the receiving facility.

BLOOD DRAWS

- Labs should be drawn on all patients with IV/IO access. Refer to *Blood Draw* procedure for further guidance.

EXTERNAL JUGULAR IV ACCESS

- External jugular vein access can be considered only after IO and IV attempts have been exhausted. External jugular access should be considered as a last resort. External jugular access is a paramedic-only skill.

INTRAOSSEOUS INFUSIONS

- Intraosseous access may only be attempted by advanced providers. Only two attempts to establish an intraosseous infusion may be made.
- Intraosseous access may be utilized initially on any hemodynamically unstable patient. Providers are limited to 1 peripheral IV attempt on hemodynamically unstable patients.
- Intraosseous access shall be utilized initially on cardiac arrest patients.
- Only intraosseous access devices approved by the EMS System may be utilized.

MEDICAL CONTROL

- ECRNs may give medical control orders after consultation with an attending physician.

Intranasal Medications

- All intranasal medications may not exceed 1mL per nare

ENDOTRACHEAL INTUBATION

- No more than 2 attempts per advanced provider or 3 attempts total per patient shall be made. (Except in DAI Protocol, only 1 attempt is allowed)
- An attempt is defined as the ET tube inserted into the oral cavity.
- Bougie® Blind Intubation assistance device may be used in intubation attempts**.**
- Only intubation assist devices approved by the EMS System may be utilized.

STANDARD PRECAUTIONS

EMS personnel should use common-sense precautions against transmission of infectious/contagious diseases when caring for any patient. Appropriate personal protective equipment must be worn when exposure to blood or other potentially infectious materials is reasonably anticipated. Reference the *Communicable Disease Policy* for more information. Providers shall be familiar with their agency's infection control policies and procedures.

Fluid Note

Lactated Ringers will be the primary fluid for our EMS system. However, in the event of a shortage, Normal Saline may be used as a substitute for all protocols that use Lactated Ringers. Expiring Saline may be substituted as needed.

All medications given via infusion must use Normal Saline or D5W (if compatible) to administer the infusion.

Drug Shortage - Dextrose

D10W can be substituted with D50 if D10W is on shortage or unavailable. The dose is 25g of D50 titrated to affect.

Abuse Hotline

Child Abuse – 1-800-252-2873
Elder (Home) – 1-866-800-1409
Elder (Supportive Living Facilities) – 1-800-226-0768
Elder (Nursing Home) – 1-800-252-4343

Lab Draw Order

The following order is recommended for drawing tubes

Blood Tube Color/Name	# of times to invert
Citrate Tube – Light Blue	8 – 10 times
BD SST – Red Speckled or Gold	5 times
Serum Tubes - Red	5 times
BD Rapid Serum Test (RST) - Orange	5 to 6 times
Heparin Tube – Dark Green	8 to 10 times
Lithium Heparin – Mint Green	8 to 10 times
EDTA – Lavender/Pink	8 to 10 times
Glucose - Gray	8 to 10 times

Glasgow Coma Scale

Glasgow Coma Scale		
Response	Scale	Score
Eye Opening Response	Eyes open spontaneously	4 Points
	Eyes open to verbal command, speech, or shout	3 Points
	Eyes open to pain (not applied to face)	2 Points
	No eye opening	1 Point
Verbal Response	Oriented	5 Points
	Confused conversation, but able to answer questions	4 Points
	Inappropriate responses, words discernible	3 Points
	Incomprehensible sounds or speech	2 Points
	No verbal response	1 Point
Motor Response	Obeys commands for movement	6 Points
	Purposeful movement to painful stimulus	5 Points
	Withdraws from pain	4 Points
	Abnormal (spastic) flexion, decorticate posture	3 Points
	Extensor (rigid) response, decerebrate posture	2 Points
	No motor response	1 Point

Cardiac Care

ROUTINE CARDIAC CARE

FR/EMR

1. Determine patient level of consciousness.
2. Establish/confirm airway patency.
3. Assess breathing and circulation.
4. Obtain pulse oximetry reading.
5. Administer supplemental **OXYGEN** per *Oxygen Administration* procedure.
6. Obtain vital signs.
7. Loosen patient's restrictive clothing.
8. Place patient in a position of comfort.
9. Ensure EMS transport has been activated.
10. Obtain patient history (including DNR/POLST status).
11. Reassess patient every 5 minutes.

BLS

1. Determine patient level of consciousness.
2. Establish/confirm airway patency.
3. Assess breathing and circulation.
4. Obtain pulse oximetry reading.
5. Administer supplemental **OXYGEN** per *Oxygen Administration* procedure.
6. Obtain vital signs.
7. Apply and obtain 12-lead ECG and transmit (required for all transport vehicles). Repeat 12-leads should be obtained every 10 minutes or during any change in patient condition. Provide an early notification to receiving hospital for positive STEMI findings.
8. Loosen patient's restrictive clothing.
9. Place patient in a position of comfort.
10. Initiate advanced level intercept.
11. Obtain patient history (including DNR/POLST status).
12. Reassess patient every 5 minutes.

ILS

1. Determine patient level of consciousness.
2. Establish/confirm airway patency.
3. Assess breathing and circulation.
4. Obtain pulse oximetry reading.
5. Administer supplemental **OXYGEN** per *Oxygen Administration* procedure.
6. Obtain vital signs.

7. Apply, obtain, and interpret 12-lead ECG. Transmit any 12-lead ECGs that are confirmed STEMI or suspicious in nature. Repeat 12-leads should be obtained every 10 minutes or during any change in patient condition. Provide an early notification to the receiving hospital for positive STEMI findings.
8. Loosen patient's restrictive clothing.
9. Place patient in a position of comfort.
10. Obtain patient history (including DNR/POLST status).
11. Initiate IV **Lactated Ringers** TKO (20ml/hr) OR saline lock. If systolic BP < 90mmHg and patient's lungs are clear, administer 250mL bolus IV. If no improvement, may repeat bolus once.
12. Reassess patient every 5 minutes.

ALS

1. Determine patient level of consciousness.
2. Establish/confirm airway patency.
3. Assess breathing and circulation.
4. Obtain pulse oximetry reading.
5. Administer supplemental **OXYGEN** per *Oxygen Administration* procedure.
6. Obtain vital signs.
7. Apply, obtain, and interpret 12-lead ECG. Transmit any 12-lead ECGs that are confirmed STEMI or suspicious in nature. Repeat 12-leads should be obtained every 10 minutes or during any change in patient condition. Provide an early notification to receiving hospital for positive STEMI findings.
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    Reassess patient every 5 minutes.

Notes:

- **STEMI Alert Criteria:**
  - **BLS –** If 12-lead read out states **"SUSPECTED STEMI"** or **"ACUTE STEMI SUSPECTED"** or **"SUSPECTED MI"** transmit 12-lead to receiving hospital and call a **STEMI Alert**
  - **ALS/ILS –** If a patient's EKG shows elevation of at least 1mm in two or more anatomically contiguous leads, call a **STEMI Alert**
- **ALS/ILS –** If patient's ECG shows global elevation (elevation in all leads), left bundle branch block, &/or paced rhythm, consult **MEDICAL CONTROL** for guidance on STEMI activation.
- **BLS/ ALS/ILS** – If the ECG meets STEMI criteria, administer **ASPIRIN** (total dose of 324mg) chewable tablets.

Cardiac Care

CHEST PAIN

FR/EMR

1. *Routine Cardiac Care* protocol.
2. Administer **ASPIRIN** (total dose of 324 mg) chewable tablets.

BLS

1. *Routine Cardiac Care* protocol.
2. Administer **ASPIRIN** (total dose 324 mg) chewable tablets.
3. If systolic BP >90mmHg and patient continues to have chest pain, administer **NITROGLYCERIN** sublingual. May repeat every 5 minutes up to 3 times as long as systolic BP remains > 90mmHg.

ILS

1. *Routine Cardiac Care* protocol.
2. Administer **ASPIRIN** (total dose 324 mg) chewable tablets.
3. If systolic BP >90mmHg and patient continues to have chest pain, administer **NITROGLYCERIN** sublingual. May repeat every 5 minutes up to 3 times as long as systolic BP remains > 90mmHg.
4. Continue managing patient's pain using an appropriate dose of **FENTANYL** per *Pain Control* Protocol until patient reaches a "tolerable" pain level with a priority of maintaining hemodynamic stability (SBP>90).

ALS

1. *Routine Cardiac Care* protocol.
2. Administer **ASPIRIN** (total dose 324 mg) chewable tablets.
3. If systolic BP >90mmHg and patient continues to have chest pain, administer **NITROGLYCERIN** sublingual. May repeat every 5 minutes up to 3 times as long as systolic BP remains > 90mmHg. Discontinue sublingual administration once IV drip is initiated.
4. If available, administer IV **NITROGLYCERIN** via infusion pump starting at 10-50mcg/min. Titrations by 5-10mcg/min every 3-5 minutes until pain is relieved. Max dose of 100mcg/min. During **NITROGLYCERIN** administration, reassessment and documentation of cardiovascular status (including a blood pressure and pulse) is required at a minimum of every 5 minutes & prior to each titration increase. If patient becomes hypotensive (SBP<90mmhg), stop infusion, and treat hypotension.
5. Continue managing patient's pain using an appropriate dose of **FENTANYL** per *Pain Control* Protocol until patient reaches a "tolerable" pain level with a priority of maintaining hemodynamic stability (SBP>90).

Medication Considerations

Medication	Route	Notes
ASPIRIN (ASA)	Oral	• DO NOT give **ASPIRIN** to a patient with a history of **ASPIRIN** allergy. • **ASPIRIN** shall not be administered if appropriate dose was given immediately prior to arrival. If **ASPIRIN** was administered immediately prior to arrival, but total dose was under 324mg, administer additional **ASPIRIN** to ensure cumulative dose of 324 mg.
NITROGLYCERIN	Sublingual	• Do not give **NITROGLYCERIN** to patients who have taken phosphodiesterase inhibitors (For example Viagra, Cialis, or Levitra) within the past 48 hours. Contact medical control for orders. • IF the heart rate is greater than 130 bpm, contact **MEDICAL CONTROL** prior to administering **NITROGLYCERIN** • **(ALS/ILS)** If patient has an inferior wall MI, consider withholding **NITROGLYCERIN**
	Intravenous	• Do not give **NITROGLYCERIN** to patients who have taken phosphodiesterase inhibitors (For example Viagra, Cialis, or Levitra) within the past 48 hours. Contact medical control for orders. • Contact medical control prior to administering **NITROGLYCERIN** if heart rate is greater than 130 • **(ALS/ILS)** If patient has an inferior wall MI, consider withholding **Nitroglycerin** • **NITROGLYCERIN** drips must be administered utilizing specialized tubing and a pump. No other medications may be administered through the **NITROGLYCERIN** tubing. • If the maximum dose of **NITROGLYCERIN** is reached and the patient continues to have chest pain, contact **MEDICAL CONTROL** for further instructions.
FENTANYL	Intravenous	• If the heart rate is greater than 130 bpm, contact **MEDICAL CONTROL** prior to administering **FENTANYL**. • Avoid IM administration

Cardiac Care

CARDIOPULMONARY ARREST

FR/EMR

1. Initiate CPR if not already in progress. Follow Adult Basic Life Support Algorithm (see below).
2. Utilize BVM with 15lpm supplemental **OXYGEN**, if available.
3. Check for pulse after 2 minutes. If no pulse, resume CPR.
4. As soon as available, apply defibrillator/AED. Follow prompts on AED.
5. Ensure transport EMS has been activated. Request advanced intercept early.
6. Insert system approved blind insertion airway device (BIAD). **Once inserted, confirm tube placement using a combination of at least 3 of the following indicators**:
   - A consistent wave form on a capnometry reading device.
   - Auscultation of lung sounds bilaterally.
   - Absence of gurgling over the epigastrium
   - Presence of chest rise and fall with ventilation.
7. If the BIAD is confirmed, ventilate using a BVM with 15lpm supplemental **OXYGEN** at a rate of 10 breaths per minute. If the BIAD is not confirmed, remove the device and continue ventilating at a rate of 30:2 using a BVM with 15lpm supplemental **OXYGEN**

BLS

1. Initiate CPR if not already in progress. Follow Adult Basic Life Support Algorithm (see below).
2. Utilize BVM with 15lpm supplemental **OXYGEN**, if available.
3. Check for pulse after 2 minutes. If no pulse resume CPR.
4. As soon as available, apply defibrillator/AED. Follow prompts on AED.
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   - Absence of gurgling over the epigastrium
   - Presence of chest rise and fall with ventilation.
7. If the BIAD is confirmed, ventilate using a BVM with 15lpm supplemental **OXYGEN** at a rate of 10 breaths per minute. If the BIAD is not confirmed, remove the device and continue ventilating at a rate of 30:2 using a BVM with 15lpm supplemental **OXYGEN**
8. Prepare patient for rapid transport; remain on scene if ALS intercept is within 15 minutes.

ILS

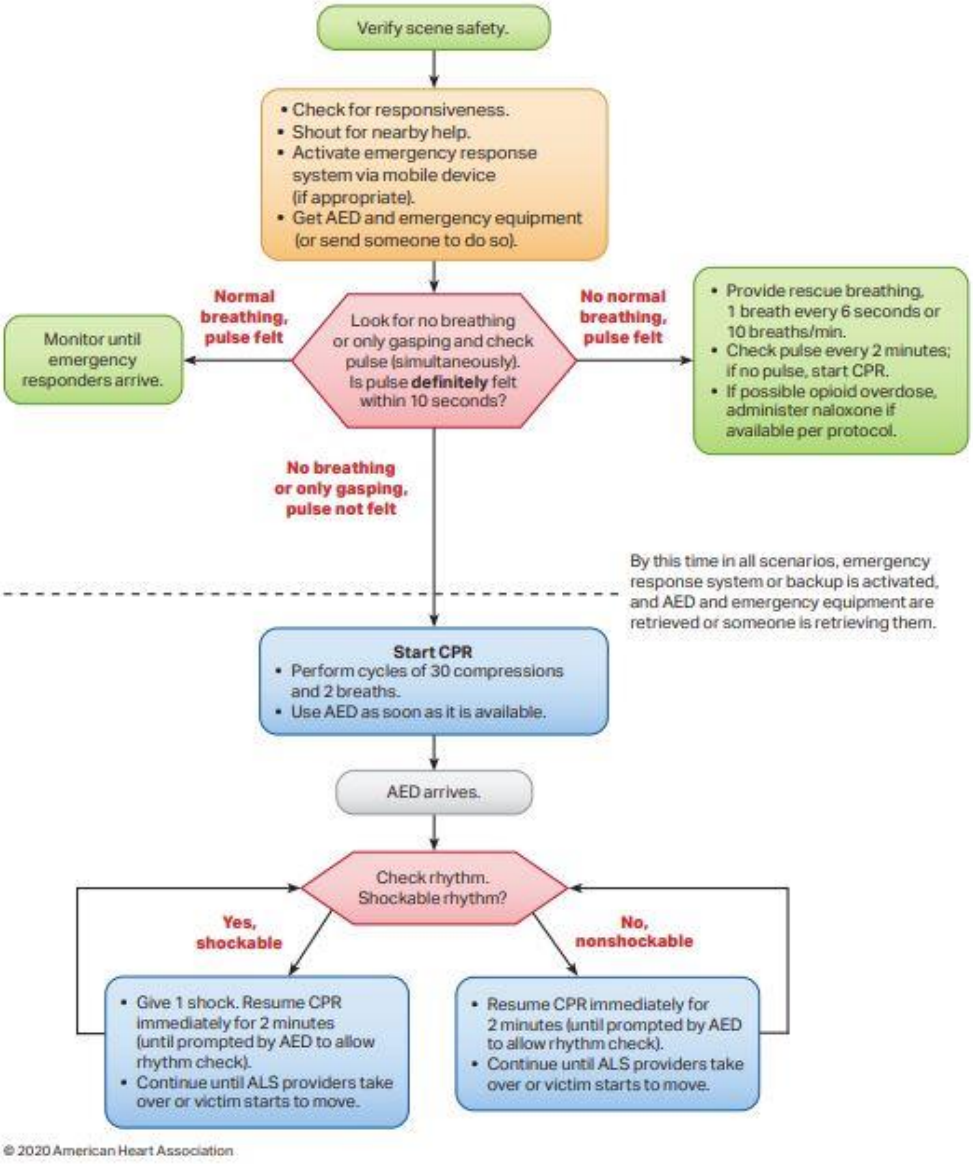
1. Initiate CPR if not already in progress. Follow Adult Basic Life Support Algorithm (see below).
2. Utilize BVM with 15lpm supplemental **OXYGEN**, if available.
3. Check for pulse after 2 minutes. If no pulse resume CPR.
4. As soon as available, apply cardiac monitor/defibrillator.
5. Follow appropriate protocol/guideline based on patient heart rhythm.
6. Request ALS intercept early.
7. Establish IV/IO access.

8. Maintain system approved blind insertion airway device (BIAD) if already in place or intubate/place BIAD. **Once inserted, confirm tube placement using a combination of at least 3 of the following indicators**:
   - A consistent wave form on a capnometry reading device.
   - Auscultation of lung sounds bilaterally.
   - Absence of gurgling over the epigastrium
   - Presence of chest rise and fall with ventilation.
9. If the airway is confirmed, ventilate using a BVM with 15lpm supplemental **OXYGEN** at a rate of 10 breaths per minute. If the airway is not confirmed, remove the device and continue ventilating at a rate of 30:2 using a BVM with 15lpm supplemental **OXYGEN**
10. If ROSC has not been achieved after a reasonable resuscitation effort based on patient factors and event details (witness arrest, downtime, etc.), institute *Cardiac Resuscitation vs. Cease Efforts and Coroner Notification* policy. Resuscitation efforts must continue until a cease efforts order has been received from medical control.

ALS

1. Initiate CPR if not already in progress. Follow Adult Basic Life Support Algorithm (see below).
2. Utilize BVM with 15lpm supplemental **OXYGEN**, if available.
3. Check for pulse after 2 minutes. If no pulse resume CPR.
4. As soon as available, apply cardiac monitor/defibrillator.
5. Follow appropriate protocol/guidelines based on patient heart rhythm.
6. Establish IV/IO access
7. Maintain system approved blind insertion airway device (BIAD) if already in place or intubate/place BIAD. **Once inserted, confirm tube placement using a combination of at least 3 of the following indicators**:
   - A consistent wave form on a capnometry reading device.
   - Auscultation of lung sounds bilaterally.
   - Absence of gurgling over the epigastrium
   - Presence of chest rise and fall with ventilation.
8. Insert orogastric tube.
9. If ROSC has not been achieved after a reasonable resuscitation effort based on patient factors and event details (witness arrest, downtime, etc.), institute *Cardiac Resuscitation vs. Cease Efforts and Coroner Notification* policy. Resuscitation efforts must continue until a cease efforts order has been received from medical control.

Adult Basic Life Support Algorithm for Healthcare Providers



NOTES:

- Always consider and treat the H's and T's: Hypovolemia, Hypoxia, Hydrogen ion (acidosis), Hypo-/Hyperkalemia, Hypothermia, Tension pneumothorax, Tamponade (cardiac), Toxins, Thrombosis (pulmonary and coronary).
- Consider **CALCIUM CHOLORIDE** 1g IV/IO for hyperkalemia and/or calcium channel blocker overdose
- Consider **SODIUM BICARBONATE** 50mEq IV/IO for cyclic antidepressant overdose, persistent ventricular arrhythmias, and suspected hyperkalemia
- If core body temperature is less than 30°C (86°F), limit defibrillations to 3 until core temperature rises above 30°C (86°F).
- When appropriate, institute *Cardiac Resuscitation vs. Cease Efforts and Coroner Notification* policy.
- Monitor airway/tube placement throughout transport, reconfirming at least 3 indictors with each transfer of patient (scene to stretcher, stretcher to ambulance, etc.)

Cardiac Care

POST-RETURN OF SPONTANEOUS CIRCULATION (POST-ROSC)

FR/EMR, BLS

1. Confirm palpable pulse (matches monitor, if available)
2. If not preformed, request advanced intercept.
3. Maintain airway. If the patient does not have a blind insertion airway device (BIAD) and **is not breathing independently,** place an appropriately sized blind insertion airway device (BIAD). **Once inserted, confirm tube placement using a combination of at least 3 of the following indicators**:
   - A consistent wave form on a capnometry reading device.
   - Auscultation of lung sounds bilaterally.
   - Absence of gurgling over the epigastrium
   - Presence of chest rise and fall with ventilation.
4. If the patient is not breathing or breathing < 10 breaths/min, provide ventilations at a rate of 10 breaths/min via BVM
5. Titrate **OXYGEN** to maintain an SPO2 of 92-98%
6. Obtain 12-lead ECG.
7. Check blood glucose.
8. Provider early hospital notification for post-cardiac arrest.
9. Frequently reassess ABCs

ILS

1. Confirm palpable pulse (matches monitor, if available)
2. If not preformed, request advanced intercept.
3. Maintain airway. If the patient does not have a blind insertion airway device (BIAD) and **is not breathing independently,** place an appropriately sized blind insertion airway device (BIAD). **Once inserted, confirm tube placement using a combination of at least 3 of the following indicators**:
   - A consistent wave form on a capnometry reading device.
   - Auscultation of lung sounds bilaterally.
   - Absence of gurgling over the epigastrium
   - Presence of chest rise and fall with ventilation.
4. If the patient is not breathing or breathing < 10 breaths/min, provide ventilations at a rate of 10 breaths/min via BVM
5. Titrate **OXYGEN** to maintain an SPO2 of 92-98%
6. Maintain hemodynamic parameters (SBP > 90 mmHg, MAP > 65mmHg) using the *Hypotensive/Cardiogenic Shock* Protocol
7. Obtain 12-lead ECG.
8. Check blood glucose.
9. Provider early hospital notification for post-cardiac arrest.
10. Frequently reassess ABCs

ALS

1. Confirm palpable pulse (matches monitor, if available)
2. Maintain airway. Maintain system approved blind insertion airway device (BIAD) if already in place or intubate/place BIAD using the *Drug Assisted Intubation* Protocol when clinical appropriate. **Once inserted, confirm tube placement using a combination of at least 3 of the following indicators**:
   - A consistent wave form on a capnometry reading device.
   - Auscultation of lung sounds bilaterally.
   - Absence of gurgling over the epigastrium
   - Presence of chest rise and fall with ventilation.
3. If the patient is not breathing or breathing < 10 breaths/min, provide ventilations at a rate of 10 breaths/min via BVM
4. Titrate **OXYGEN** to maintain an SPO2 of 92-98%
5. Maintain hemodynamic parameters (SBP > 90 mmHg, MAP > 65mmHg) using the *Hypotensive/Cardiogenic Shock* Protocol
6. Obtain 12-lead ECG.
7. Treat arrhythmias.
8. Consider Ketamine for sedation.
9. Check blood glucose.
10. Place OG tube.
11. Provider early hospital notification for post-cardiac arrest.
12. Frequently reassess ABCs

Cardiac Care

CARDIOPULMONARY ARREST – VENTRICULAR FIBRILLATION (VF)/PULSELESS VENTRICULAR TACHYCARDIA (VT)

FR/EMR, BLS

1. *Cardiopulmonary Arrest* Protocol.

ILS

1. *Cardiopulmonary Arrest* Protocol.
2. Preform pulse check/rhythm check. If pulseless and in VF or VT, defibrillate with one shock. (monophasic: 360 joules; biphasic: device specific or 200 joules). See *PEA*, *Asystole, Post-ROSC* Protocols when applicable.
3. Continue CPR for 2 minutes. Administer **EPINEPHRINE** 1 mg IV/IO.
4. Preform pulse check/rhythm check. If pulseless and in VF or VT, defibrillate with one shock. (monophasic: 360 joules; biphasic: device specific or 200 joules). See *PEA*, *Asystole, Post-ROSC* Protocols when applicable.
5. Continue CPR for 2 minutes. Administer **AMIODARONE** 300 mg IV/IO.
6. Preform pulse check/rhythm check. If pulseless and in VF or VT, defibrillate with one shock. (monophasic: 360 joules; biphasic: device specific or 200 joules). See *PEA*, *Asystole, Post-ROSC* Protocols when applicable.
7. Continue CPR for 2 minutes. Administer **EPINEPHRINE** 1 mg IV/IO.
8. Preform pulse check/rhythm check. If pulseless and in VF or VT, defibrillate with one shock. (monophasic: 360 joules; biphasic: device specific or 200 joules). See *PEA*, *Asystole, Post-ROSC* Protocols when applicable.
9. Continue CPR for 2 minutes. **AMIODARONE** 150 mg IV/IO.
10. Preform pulse check/rhythm check. If pulseless and in VF or VT, defibrillate with one shock. (monophasic: 360 joules; biphasic: device specific or 200 joules). See *PEA*, *Asystole, Post-ROSC* Protocols when applicable.
11. Continue CPR for 2 minutes. Administer **EPINEPHRINE** 1 mg IV/IO. Repeat every 3-5 minutes as long as patient remains pulseless.
12. Preform pulse check/rhythm check. If pulseless and in VF or VT, defibrillate with one shock. (monophasic: 360 joules; biphasic: device specific or 200 joules). See *PEA*, *Asystole, Post-ROSC* Protocols when applicable.
13. Transport. Continue #11 & #12 as appropriate.

ALS

1. *Cardiopulmonary Arrest* Protocol.
2. Preform pulse check/rhythm check. If pulseless and in VF or VT, defibrillate with one shock. (monophasic: 360 joules; biphasic: device specific or 200 joules). See *PEA*, *Asystole, Post-ROSC* Protocols when applicable.
3. Continue CPR for 2 minutes. Administer **EPINEPHRINE** 1 mg IV/IO.

4. Preform pulse check/rhythm check. If pulseless and in VF or VT, defibrillate with one shock. (monophasic: 360 joules; biphasic: device specific or 200 joules). See *PEA*, *Asystole, Post-ROSC* Protocols when applicable.
5. Continue CPR for 2 minutes. Administer **AMIODARONE** 300 mg IV/IO.
6. Preform pulse check/rhythm check. If pulseless and in VF or VT, defibrillate with one shock. (monophasic: 360 joules; biphasic: device specific or 200 joules). See *PEA*, *Asystole, Post-ROSC* Protocols when applicable.
7. Continue CPR for 2 minutes. Administer **EPINEPHRINE** 1 mg IV/IO.
8. Administer **MAGNESIUM SULFATE** 2g IV/IO over 1-2 minutes.
9. Preform pulse check/rhythm check. If pulseless and in VF or VT, defibrillate with one shock. (monophasic: 360 joules; biphasic: device specific or 200 joules). See *PEA*, *Asystole, Post-ROSC* Protocols when applicable.
10. Continue CPR for 2 minutes. **AMIODARONE** 150 mg IV/IO.
11. Preform pulse check/rhythm check. If pulseless and in VF or VT, defibrillate with one shock. (monophasic: 360 joules; biphasic: device specific or 200 joules). See *PEA*, *Asystole, Post-ROSC* Protocols when applicable.
12. Continue CPR for 2 minutes. Administer **EPINEPHRINE** 1 mg IV/IO. Repeat every 3-5 minutes as long as patient remains pulseless.
13. Preform pulse check/rhythm check. If pulseless and in VF or VT, defibrillate with one shock. (monophasic: 360 joules; biphasic: device specific or 200 joules). See *PEA*, *Asystole, Post-ROSC* Protocols when applicable.
14. Transport. Continue #11 & #12 as appropriate.

NOTES:

- A 50ml flush/bolus must be given between medication administration
- Providers should follow appropriate protocol based on rhythm.
- Consider **SODIUM BICARBONATE** 50mEq IV/IO for cyclic antidepressant overdose, persistent ventricular arrhythmias, and suspected hyperkalemia
- **ALS -** Consider early administration of **MAGNESIUM SULFATE** 2g IV/IO for treatment of pulseless torsades de pointes and/or suspected digitalis toxicity

Cardiac Care

CARDIOPULMONARY ARREST – PULSELESS ELECTRICAL ACTIVITY

FR/EMR, BLS

1. *Cardiopulmonary Arrest* Protocol.

ILS

1. *Cardiopulmonary Arrest* Protocol.
2. Preform pulse check/rhythm check. If pulseless and in PEA, begin CPR. See *VF/VT*, *Asystole, Post-ROSC* Protocols when applicable.
3. Continue CPR for 2 minutes. **EPINEPHRINE** 1 mg IV/IO. Repeat every 3-5 minutes (IV/IO) as long as patient remains pulseless.
4. Continue #2 & #3.

ALS

1. *Cardiopulmonary Arrest* Protocol.
2. Preform pulse check/rhythm check. If pulseless and in PEA, begin CPR. See *VF/VT*, *Asystole, Post-ROSC* Protocols when applicable.
3. Continue CPR for 2 minutes. **EPINEPHRINE** 1 mg IV/IO. Repeat every 3-5 minutes (IV/IO) as long as patient remains pulseless.
4. Preform pulse check/rhythm check. If pulseless and in PEA, begin CPR. See *VF/VT*, *Asystole, Post-ROSC* Protocols when applicable.
5. Continue CPR for 2 minutes. **EPINEPHRINE** 1 mg IV/IO. Repeat every 3-5 minutes (IV/IO) as long as patient remains pulseless. **SODIUM BICARBONATE** 50 mEq IV/IO
6. Continue #2 & #3.

NOTES:

- A 50ml flush/bolus must be given between medication administration
- Consider contacting medical control early in cases of blunt force PEA
- Consider **CALCIUM CHLORIDE** 1g IV/IO for hyperkalemia and/or calcium channel blocker overdose.

Cardiac Care

CARDIOPULMONARY ARREST – ASYSTOLE

FR/EMR, BLS

1. *Cardiopulmonary Arrest* Protocol.

ILS

1. *Cardiopulmonary Arrest* Protocol.
2. Preform pulse check/rhythm check. If pulseless and in Asystole, begin CPR. See *VF/VT*, *PEA, Post-ROSC* Protocols when applicable.
3. Continue CPR for 2 minutes. **EPINEPHRINE** 1 mg IV/IO. Repeat every 3-5 minutes (IV/IO) as long as patient remains pulseless.
4. Continue #2 & #3.
5. Contact Medical Control for termination of resuscitative efforts in the field when the patient has been in asystole greater than 15 minutes and not responsive to ILS interventions.

ALS

1. *Cardiopulmonary Arrest* Protocol.
2. Preform pulse check/rhythm check. If pulseless and in Asystole, begin CPR. See *VF/VT*, *PEA, Post-ROSC* Protocols when applicable.
3. Continue CPR for 2 minutes. **EPINEPHRINE** 1 mg IV/IO. Repeat every 3-5 minutes (IV/IO) as long as patient remains pulseless.
4. Preform pulse check/rhythm check. If pulseless and in Asystole, begin CPR. See *VF/VT*, *PEA, Post-ROSC* Protocols when applicable.
5. Continue CPR for 2 minutes. **EPINEPHRINE** 1 mg IV/IO. Repeat every 3-5 minutes (IV/IO) as long as patient remains pulseless. **SODIUM BICARBONATE** 50 mEq IV/IO
6. Continue #2 & #3.
7. Contact Medical Control for termination of resuscitative efforts in the field when the patient has been in asystole greater than 15 minutes and not responsive to ALS interventions.

Notes:

- A 50ml flush/bolus must be given between medication administration
- Do not transport patients in asystole unless the patient is hypothermic.
- Consider **CALCIUM CHLORIDE** 1g IV/IO for hyperkalemia and/or calcium channel blocker overdose

Cardiac Care

HYPOTENSIVE/CARDIOGENIC SHOCK

FR/EMR, BLS

1. *Routine Cardiac Care* Protocol.

ILS

1. *Routine Cardiac Care* Protocol.
2. If lungs are clear, administer **LACTATED RINGERS** 250ml bolus**.** May repeat if no response to initial bolus and lungs remain clear.
3. Contact **MEDICAL CONTROL** for further orders.

ALS

1. *Routine Cardiac Care* Protocol.
2. **NOREPINEPHRINE** infusion at 5mcg/min and titrate at 1mcg/min every 5 minutes to maintain a SBP ≥ 90mmHg. Max dose of 30 mcg/min. During **Norepinephrine** administration, reassessment, and documentation of cardiovascular status (including a blood pressure and pulse) is required at a minimum of every 5 minutes & prior to each titration increase.
3. **Push Dose Epinephrine** (1:100,000) (See Mixing Instructions). Administer 5-10mcg (10mcg/1ml) every 1-5 minutes to maintain a SBP ≥ 90mmhg or MAP of 65 for short transports (<10 minutes), while preparing norepinephrine drip, or if SBP is < 90mmhg or MAP < 65 following max titration of norepinephrine. During **Push Dose Epinephrine** administration, reassessment, and documentation of cardiovascular status (including a blood pressure and pulse) is required at a minimum of every 5 minutes & prior to each administration

Medication Considerations:

Medication	Route	Notes
Norepinephrine	Intravenous	• Mixing instructions - Draw up 4mg of Norepinephrine into a syringe. - Instill 4mg of Norepinephrine into a 250ml of D5W or NS - Clearly label the bag mixture with adhesive tape/sticker *"Norepinephrine 4mg/250ml (16mcg/ml)"* • Administer Norepinephrine through an IV pump • Administer adequate fluid resuscitation prior to or simultaneously to norepinephrine administration, ensuring maximum pharmacokinetic effectiveness.
Push Dose Epinephrine	Intravenous	• Mixing instructions: - Take a 10ml syringe and draw up 0.1mg of (1:10,000; 0.1mg/1ml) cardiac epinephrine from a pre-filled vial using a large bore IM needle. - Draw up an additional 9ml of normal saline from a saline bag. Extra care to only draw up 9ml. ***If you draw up more saline than needed, do not push back into line/bag;*** *Discard syringe/contents and start from beginning.*

		- Clearly label the syringe mixture with adhesive tape/sticker “Epinephrine 0.1mg/10ml (10mcg/ml)”

WIDE COMPLEX TACHYCARDIA - STABLE

FR/EMR, BLS, ILS & ALS

1. *Routine Cardiac Care* Protocol.

Notes:

- STABLE: Patient is conscious, alert, and oriented per their normal mentation AND hemodynamically stable
- For symptomatic (Shortness of breath, mild to moderate chest pain, dizziness) monomorphic wide-complex tachycardia, consider contacting MEDICAL CONTROL for **ADENOSINE** IV push order.

Cardiac Care

WIDE COMPLEX TACHYCARDIA - UNSTABLE

FR/EMR, BLS

1. *Routine Cardiac Care* Protocol.

ILS

1. *Routine Cardiac Care* Protocol.
2. Contact **MEDICAL CONTROL** for order to perform synchronized cardioversion. See *Defibrillation and Synchronized Cardioversion* Procedure.
3. Administer sedation of **MIDAZOLAM** 0.05mg/kg (max does of 5 mg) IV/IO/IN over 2 minutes. Do not delay cardioversion for sedation administration in unstable patient.
4. If cardioversion is unsuccessful, administer **AMIODARONE** 150mg over 10 minutes.
5. Following bolus dose, administer **AMIODARONE INFUSION** at 1mg/min.

ALS

1. *Routine Cardiac Care* Protocol.
2. Synchronized cardioversion. See *Defibrillation and Synchronized Cardioversion* Procedure.
3. Administer sedation of **MIDAZOLAM** 0.05mg/kg (max does of 5 mg) IV/IO over 2 minutes. As an alternative, administer IN with the same dosage. Do not delay cardioversion for sedation administration in unstable patient
4. If cardioversion is unsuccessful, administer **AMIODARONE** 150mg over 10 minutes.
5. Following bolus dose, administer **AMIODARONE INFUSION** at 1mg/min.

Notes:

- UNSTABLE: decreased level of consciousness, hypotension, severe chest pain, or severe pulmonary congestion.
- For Torsade De Pointes, consider contacting MEDICAL CONTROL for **MAGNESIUM SULFATE** 2g IV/IO order

Medication Considerations:

Medication	Route	Notes
Midazolam	Intravenous/ Intranasal	• Potential for retrograde amnesia; consider administration post-synchronized cardioversion if the patient remains hemodynamically stable

Synchronized Cardioversion:

Rhythm	Starting Energy
PSVT/A-Fib	50J
V-Tach w/Pulse	100J
Torsades	200J
Joule Progress – 50-100-200-360J (Biphasic)	

Cardiac Care

NARROW COMPLEX TACHYCARDIA – STABLE
(HR>220-patient age)

FR/EMR, BLS

1. Routine Cardiac Care.

ILS

1. Routine Cardiac Care.
2. If patient is less than 60 years, perform Valsalva maneuver
3. Consider giving a 500mL fluid bolus to rule out hypovolemia/dehydration as cause of tachycardia.
4. **ADENOSINE** 6 mg rapid IV utilizing a single-syringe or double syringe technique
5. If no change in rhythm after 2 minutes, **ADENOSINE** 12 mg rapid IV. May repeat once in 2 minutes if condition persists.
6. If rhythm persists, Contact **MEDICAL CONTROL** for order to perform synchronized cardioversion with pre-sedation of **MIDAZOLAM** 0.05mg/kg (max dose 5 mg) IV/IO/IN over 2 minutes. See *Defibrillation and Synchronized Cardioversion* Procedure.

ALS

1. Routine Cardiac Care.
2. If patient is less than 60 years, perform Valsalva maneuver.
3. Consider giving a 500mL fluid bolus to rule out hypovolemia/dehydration as cause of tachycardia.
4. **ADENOSINE** 6 mg rapid IV utilizing a single-syringe or double syringe technique
5. If no change in rhythm after 2 minutes, **ADENOSINE** 12 mg rapid IV. May repeat once in 2 minutes if condition persists.
6. If rhythm persists, Contact **MEDICAL CONTROL** for order to perform synchronized cardioversion with pre-sedation of **MIDAZOLAM** 0.05mg/kg (max does of 5 mg) IV/IO over 2 minutes. As an alternative, administer IN with the same dosage. See *Defibrillation and Synchronized Cardioversion* Procedure.

Notes:

- STABLE: Patient is Conscious, alert, and oriented per their normal mentation AND hemodynamically stable
- For patients with suspected atrial fibrillation or atrial flutter with a rapid ventricular response (RVR), contact medical control for guidance.

Medication Considerations:

Medication	Route	Notes
Midazolam	Intravenous/ Intranasal	• Potential for retrograde amnesia; consider administration post-synchronized cardioversion if the patient remains hemodynamically stable
Adenosine	Intravenous	• Single Syringe Technique: - Draw up the desired dose of adenosine in a 20ml syringe.

		- Dilute the adenosine by add Sodium Chloride 0.9% to fill the remained of the syringe for a total volume of 20ml. - Rapidly administer the adenosine/normal saline mixture through a large bore IV at the antecubital or above. • Double Syringe Technique: - Draw up the desired dose of adenosine in a 5ml syringe. - Draw up 10-20 ml of normal saline 0.9% into a syringe. Attach a stopcock to the luer-lock of a large bore IV at the antecubital or above. - Attach both the adenosine and the normal saline syringes to the stopcock. - Using the stopcock flow control, rapidly administer the adenosine followed by the normal saline 0.9% bolus.

Synchronized Cardioversion:

Rhythm	**Starting Energy**
PSVT/A-Fib	50J
V-Tach w/Pulse	100J
Torsades	200J
Joule Progress – 50-100-200-360J (Biphasic)	

Cardiac Care

NARROW COMPLEX TACHYCARDIA – UNSTABLE (HR>220-patient age)

FR/EMR, BLS

1. *Routine Cardiac Care* Protocol.

ILS

1. *Routine Cardiac Care* Protocol.
2. Contact **MEDICAL CONTROL** for order to perform synchronized cardioversion. See *Defibrillation and Synchronized Cardioversion* Procedure.
3. Administer sedation of **MIDAZOLAM** 0.05mg/kg (max does of 5 mg) IV/IO over 2 minutes. As an alternative, administer IN with the same dosage. Do not delay cardioversion for sedation administration in unstable patients

ALS

1. Routine Cardiac Care.
2. Synchronized cardioversion. See *Defibrillation and Synchronized Cardioversion* Procedure
3. Administer sedation of **MIDAZOLAM** 0.05mg/kg (max does of 5 mg) IV/IO over 2 minutes. As an alternative, administer IN with the same dosage. Do not delay cardioversion for sedation administration in unstable patients

Notes:

- UNSTABLE: decreased level of consciousness, hypotension, severe chest pain, or severe pulmonary congestion.

Medication Consideration:

Medication	Route	Notes
Midazolam	Intravenous/ Intranasal	• Potential for retrograde amnesia; consider administration post-synchronized cardioversion if the patient remains hemodynamically stable

Synchronized Cardioversion

Rhythm	Starting Energy
PSVT/A-Fib	50J
V-Tach w/Pulse	100J
Torsades	200J
Joule Progress – 50-100-200-360J (Biphasic)	

Cardiac Care

BRADYCARDIA – STABLE
(HR<60)

FR/EMR, BLS, ILS, ALS

1. *Routine Cardiac Care* Protocol.

NOTES:

- STABLE: Patient is Conscious, alert, and oriented per their normal mentation AND hemodynamically stable.
- Bradycardia may be a normal finding.

Cardiac Care

BRADYCARDIA – UNSTABLE
(Sinus Bradycardia, 1st Degree Heart Block, 2nd Degree Type I Heart Block)

FR/EMR, BLS

1. *Routine Cardiac Care* Protocol.

ILS

1. *Routine Cardiac Care* Protocol.
2. Administer **ATROPINE** 1 mg IO/IV. If a STEMI is identified on ECG, withhold atropine and contact **MEDICAL CONTROL** for guidance.
3. If no response in 3-5 minutes, repeat **ATROPINE** 1mg IO/IV. If patient condition improves, continue with atropine administration until patient becomes hemodynamically stable (or until maximum atropine dose of 3 mg has been given).
4. If no response after 2 doses of atropine contact **MEDICAL CONTROL** for further guidance, prepare for transcutaneous pacing with sedation of **MIDAZOLAM** 0.05mg/kg (max dose 5 mg) IV/IO/IN over 2 minutes.

ALS

1. *Routine Cardiac Care* Protocol.
2. Administer **ATROPINE** 1 mg IO/IV. If a STEMI is identified on ECG, withhold atropine and contact **MEDICAL CONTROL** for guidance.
3. If no response in 3-5 minutes, repeat **ATROPINE** 1mg IO/IV. If patient condition improves, continue with atropine administration until patient becomes hemodynamically stable (or until maximum atropine dose of 3 mg has been given).
4. If no response after 2 doses of atropine, begin transcutaneous pacing with sedation of **MIDAZOLAM** 0.05mg/kg (max does of 5 mg) IV/IO over 2 minutes, as an alternative you may administer IN with the same dosage. See *External Pacemaker* Procedure.

Notes:

- "Improvement" is defined as an increase in heart rate with a corresponding increase in mentation and hemodynamic stability (blood pressure).
- UNSTABLE: decreased level of consciousness, hypotension, severe chest pain, or severe pulmonary congestion.

Medication Considerations:

Medication	Route	Notes
Atropine	Intravenous	• Do not administer if a CVA/neurological injury is suspected
Midazolam	Intravenous/ Intranasal	• Potential for retrograde amnesia; consider administration post-synchronized cardioversion if the patient remains hemodynamically stable

Lactated Ringers	Intravenous	• Consider a 250ml bolus of lactated ringers if patient remains hypotensive. • If patient remains hypotensive following bolus, refer to the *Hypovolemic/Cardiogenic Shock Protocol*.

Cardiac Care

BRADYCARDIA – UNSTABLE
(2nd Degree Type II Heart Block, 3rd Degree Heart Block)

FR/EMR, BLS

1. *Routine Cardiac Care* Protocol.

ILS

1. *Routine Cardiac Care* Protocol.
2. **ATROPINE** 1 mg IV/IO.
3. Prepare for transcutaneous pacing. Contact **MEDICAL CONTROL** for further guidance. For patients who do not have an altered mental status, consider **MIDAZOLAM** 0.05mg/kg (Max dose of 5mg) IV/IO/IN over 2 minutes for sedation for pacing.

ALS

1. *Routine Cardiac Care* Protocol.
2. **ATROPINE** 1 mg IV/IO.
3. Begin transcutaneous pacing. Consider sedation of **MIDAZOLAM** 0.05mg/kg (max does of 5 mg) IV/IO over 2 minutes, as an alternative you may administer IN with the same dosage. See *Defibrillation and External Pacemaker Procedure*.

NOTES:

- "Improvement" is defined as an increase in heart rate with a corresponding increase in mentation and hemodynamic stability (blood pressure).
- UNSTABLE: decreased level of consciousness, hypotension, severe chest pain, or severe pulmonary congestion.

Medication Considerations:

Medication	Route	Notes
Atropine	Intravenous	• Do not administer if a CVA/neurological injury is suspected
Midazolam	Intravenous/ Intranasal	• Potential for retrograde amnesia; consider administration post-synchronized cardioversion if the patient remains hemodynamically stable

Medical Care

ROUTINE MEDICAL CARE

FR/EMR, BLS

1. Determine patient level of consciousness.
2. Establish/confirm airway patency.
3. Assess breathing and circulation.
4. Obtain pulse oximetry reading.
5. Administer supplemental **OXYGEN** per *Oxygen Administration* Procedure.
6. Obtain vital signs.
7. Loosen restrictive clothing.
8. Place patient in position of comfort.
9. Ensure EMS transport has been activated.
10. Obtain patient history (including DNR/POLST status).
11. Reassess patient every 5 minutes (add stable vs. unstable)

ILS, ALS

1. Determine patient level of consciousness.
2. Establish/confirm airway patency.
3. Assess breathing and circulation.
4. Obtain pulse oximetry reading.
5. Administer supplemental **OXYGEN** per *Oxygen Administration* Procedure.
6. Obtain vital signs.
7. Loosen restrictive clothing.
8. Place patient in position of comfort.
9. Obtain patient history (including DNR/POLST status).
10. Reassess patient every 15 minutes (stable) or 5 minutes (unstable).

Note

If patient does not fall under a specific protocol, treat using a Routine Medical Care Protocol. Ensure patients ABC's are treated appropriately.

ACUTE PULMONARY EDEMA

FR/EMR

1. Routine Medical Care.

BLS

1. Routine Medical Care.
2. Apply, obtain, and transmit 12-lead ECG.
3. If systolic blood pressure is greater than 100 mmHg, **NITROGLYCERIN** 0.4 mg SL. After 5 minutes and if systolic blood pressure is greater than 100 mmHg, apply **NITROGLYCERIN PASTE** (1").
4. Apply **CPAP** at 5 cm H_20 pressure. Contact **MEDICAL CONTROL** prior to initiating CPAP if systolic blood pressure is less than 100 mmHg.
5. Contact **MEDICAL CONTROL** to increase peep pressure up to 10 cm H_20 pressure.
6. Activate advanced level intercept.

ILS

1. Routine Medical Care.
2. Apply and obtain 12-lead ECG.
3. If systolic blood pressure is greater than 100 mmHg, **NITROGLYCERIN** 0.4 mg SL. After 5 minutes and if systolic blood pressure is greater than 100 mmHg, apply **NITROGLYCERIN PASTE** (1").
4. Apply **CPAP** at 5 cm H_2O pressure. Contact **MEDICAL CONTROL** prior to initiating CPAP if systolic blood pressure is less than 100 mmHg. If respiratory distress does not improve within 5 minutes and the patient is tolerating CPAP, increase CPAP pressure up to 10 cm H_2O.
5. Initiate saline lock.
6. Consider **LORAZEPAM** 1 mg IV OR 2 mg IN (1 mg each nare) with **MEDICAL CONTROL** order. Do not administer if systolic blood pressure is less than 100 mmHg.

ALS

1. Routine Medical Care.
2. Apply and obtain 12-lead ECG.
3. If systolic blood pressure is greater than 100 mmHg, **NITROGLYCERIN** 0.4 mg SL.
4. Apply **CPAP** at 5 cm H_2O pressure. Contact **MEDICAL CONTROL** prior to initiating CPAP if systolic blood pressure is less than 100 mmHg. If the respiratory distress does not improve within 5 minutes and the patient is tolerating CPAP, increase CPAP pressure up to 10 cm H_2O.
5. Consider administering **LORAZEPAM** 1 mg IV OR 2 mg IN (1 mg each nare) if patient is experiencing anxiety.
6. Initiate saline lock.
6. If systolic blood pressure is greater than 100mmHg, apply **NITROGLYCERIN PASTE** (1") OR if available, administer **NITROGLYCERIN** infusion starting at 50mcg/min IV. Increase by 10mcg/min every 5 minutes until pain is relieved. If patient becomes hypotensive (SBP<100mmhg) stop infusion. Max dose of 100mcg/min. Providers may decrease dose doses down to 10mcg/min as needed to maintain adequate

blood pressure. If patient continues to have chest pain, then contact **MEDICAL CONTROL** for further instructions. Infusion must be run through a pump.

7. If patient still remains in respiratory distress then contact **MEDICAL CONTROL** for further instructions.

NOTES:

- Continuously monitor respiratory adequacy. If patient condition continues to deteriorate, manually assisted ventilations with BVM may be needed.
- Nitroglycerin drips must be administered utilizing specialized tubing and a pump. No other medications may be administered through the nitroglycerin tubing.
- Anytime a nitroglycerin drip is administered a second IV line must be initiated.
- Immediately discontinue NTG paste and/or NTG infusion if SBP drops below 100 mmHg.
- Once NTG paste or infusion is initiated, do not administer NTG SL.

Medical Care

ASTHMA/COPD

FR/EMR

1. Routine Medical Care.
2. **ALBUTEROL SULFATE**, 2.5 mg in 3 ml normal saline**,** via nebulizer. May be repeated every 5 minutes if respiratory distress persists.

BLS

1. Routine Medical Care.
2. **ALBUTEROL SULFATE**, 2.5 mg in 3 ml normal saline**,** mixed with **IPRATROPIUM** 0.5 mg via nebulizer. Albuterol/Ipratropium (Duo-Neb) may be repeated every 5 minutes if respiratory distress persists.
3. If no relief after one (1) EMS-administered nebulizer treatments, apply CPAP at 5 cm H_20 pressure along with **ALBUTEROL SULFATE**, 2.5 mg in 3 ml normal saline**,** mixed with **IPRATROPIUM** 0.5 mg.
    a. Contact **MEDICAL CONTROL** prior to initiating CPAP if systolic blood pressure is less than 100 mmHg.
    b. Once three (3) doses (1.5mg) of ipratropium have been administered, then switch to continuous **ALBUTEROL SULFATE** nebulizer therapy.
4. *SUSPECTED ASTHMA ONLY***:** If condition does not improve with albuterol, **EPINEPHRINE** auto-injector (Epi-Pen), or 0.3 mg 1:1000 Epinephrine for IM approved agencies may be administered with **MEDICAL CONTROL** order.

ILS

1. Routine Medical Care
2. **ALBUTEROL SULFATE**, 2.5 mg in 3 ml normal saline**,** mixed with **IPRATROPIUM** 0.5 mg via nebulizer. Albuterol/Ipratropium (Duo-Neb) may be repeated every 5 minutes if respiratory distress persists.
3. Initiate IV **LACTATED RINGERS** TKO (20ml/hr) OR IV lock.
4. If no relief after one (1) EMS-administered nebulizer treatments apply CPAP at 5 cm H_20 pressure along with continuous **ALBUTEROL SULFATE/IPRATROPIUM** nebulizer therapy.
    a. If the distress does not improve and the patient is tolerating CPAP, increase CPAP pressure to 10 cm H_2O. Continue to give nebulized treatments through CPAP.
    b. Contact **MEDICAL CONTROL** prior to initiating CPAP if systolic blood pressure is less than 100 mmHg.
    c. Consider **LORAZEPAM** 1 mg IV OR 2 mg intranasal (1 mg each nare) prior to CPAP for anxiety.
    d. Once three (3) doses (1.5mg) of ipratropium have been administered, then switch to continuous **ALBUTEROL SULFATE** nebulizer therapy.
5. Continuous cardiac monitoring.
6. *SUSPECTED ASTHMA ONLY*: If no relief with nebulizer treatments and CPAP, **EPINEPHRINE 1:1000** 0.3 mg IM.

ALS

1. Routine Medical Care.
2. **ALBUTEROL SULFATE**, 2.5 mg in 3 ml normal saline**,** mixed with **IPRATROPIUM** 0.5 mg via nebulizer. Albuterol/Ipratropium (Duo-Neb) may be repeated every 5 minutes if respiratory distress persists.
3. Initiate IV **LACTATED RINGERS** TKO (20ml/hr) OR IV lock.
4. **METHYLPREDNISOLONE**, 125 mg IV.
5. If no relief, apply CPAP at 5 cm H_20 pressure along with continuous **ALBUTEROL SULFATE/IPRATROPIUM** nebulizer therapy.
    a. If the distress does not improve and the patient is tolerating CPAP, increase CPAP pressure up to 10 cm H_2O. Continue to give nebulized treatments through CPAP.
    b. Contact **MEDICAL CONTROL** prior to initiating CPAP if systolic blood pressure is less than 100 mmHg.
    c. Consider **LORAZEPAM** 1 mg IV OR 2 mg intranasal (1 mg each nare) prior to CPAP for anxiety.
    d. Once three (3) doses (1.5mg) of ipratropium have been administered, then switch to **ALBUTEROL SULFATE** nebulizer therapy.
6. Continuous cardiac monitoring.
7. If no significant improvement following 5 minutes of CPAP, administer **MAGNESIUM SULFATE,** 2 grams in 250 mL **NORMAL SALINE** bag and infuse IV piggyback over 6 – 10 minutes (60 gtt tubing at wide open). Contact **MEDICAL CONTROL** prior to administration if patient has a history of renal disease.
8. *SUSPECTED ASTHMA ONLY*: If no relief with nebulizer treatments, CPAP, magnesium sulfate, and methylprednisolone, **EPINEPHRINE 1:1000** 0.3 mg IM.

NOTES:

- If patient requires BVM assist, use in-line nebulizer.
- If available administer Magnesium Sulfate through IV pump 2g/100 ml bag of Normal Saline at 600 ml/hr, for total administration time of 10 Minutes
- If patient is allergic to Ipratropium, give only Albuterol treatment.

Medical Care

ANAPHYLAXIS

FR/EMR

1. Routine Medical Care.
2. Administer patient provided **EPINEPHRINE** auto-injector (Epi-Pen) 0.3 mg, or agency provided **EPINEPHRIN**E auto-injector (Epi-Pen) 0.3 mg if available.

BLS

1. Routine Medical Care.
2. Administer **EPINEPHRINE** auto-injector (Epi-Pen) or 0.3 mg 1:1000 Epinephrine if IM approved agency. If no improvement, contact **MEDICAL CONTROL** for a repeat dose order.
3. If respiratory distress continues, administer **ALBUTEROL SULFATE**, 2.5 mg in 3 ml normal saline**,** mixed with **IPRATROPIUM** 0.5 mg via nebulizer. May repeat every 5 minutes.
    a. Once three (3) doses (1.5mg) of ipratropium have been administered, then switch to continuous **ALBUTEROL SULFATE** nebulizer therapy if needed.
4. **DIPHENHYDRAMINE** 50mg given orally
5. Initiate advanced level intercept.

ILS

1. Routine Medical Care.
2. **EPINEPHRINE** 1:1000 0.3 mg IM. May repeat once in 10 minutes if no improvement.
3. Initiate IV. Give 500mL bolus to maintain systolic BP > 90 mmHg.
6. If respiratory distress continues, administer **ALBUTEROL SULFATE**, 2.5 mg in 3 ml normal saline**,** mixed with **IPRATROPIUM** 0.5 mg via nebulizer. May repeat every 5 minutes.
    a. Once three (3) doses (1.5mg) of ipratropium have been administered, then switch to continuous **ALBUTEROL SULFATE** nebulizer therapy if needed..
7. **DIPHENHYDRAMINE** 50mg IV over 2-3 minutes.

ALS

1. Routine Medical Care.
2. **EPINEPHRINE** 1:1000 0.3 mg IM. May repeat once in 10 minutes if no improvement.
3. Initiate IV. Give 500 mL bolus to maintain systolic BP > 90 mmHg.
4. If respiratory distress continues, administer **ALBUTEROL SULFATE** 2.5 mg in 3 ml NS mixed with **IPRATROPIUM** 0.5 mg via nebulizer. May repeat every 5 minutes.
    a. Once three (3) doses (1.5mg) of ipratropium have been administered, then switch to continuous **ALBUTEROL SULFATE** nebulizer therapy if needed..
5. **DIPHENHYDRAMINE** 50mg IV over 2-3 minutes.
6. **METHYLPREDNISOLONE** 125 mg IV.

7. If systolic blood pressure remains < 90 mmHg after two (2) 500mL boluses initiate **Norepinephrine** infusion at 5mcg/min and titrate at 1mcg/min every 5 minutes to maintain a SBP ≥ 90mmHg or Map > 65/. Max dose of 30 mcg/min **NOTES:**

- If available administer Norepinephrine through IV pump.
- Anaphylaxis is defined as hemodynamic instability and/or pending respiratory failure caused by an allergen.

Medical Care

ALLERGIC REACTION (NON-ANAPHYLAXIS)

FR/EMR

1. Routine Medical Care.

BLS

1. Routine Medical Care.
2. **DIPHENHYDRAMINE** 50mg given orally

ILS & ALS

1. Routine Medical Care.
2. **DIPHENHYDRAMINE** 50mg IV over 2-3 minutes or 50 mg IM or 50mg orally

Medical Care

UNCONSCIOUSNESS/ALTERED LEVEL OF CONSCIOUSNESS/SYNCOPE

FR/EMR

1. Routine Medical Care.
2. Conduct FAST/VAN screen if neurologic cause suspected.
3. Check blood glucose level.
4. If patient is not breathing or not breathing adequately, assist with ventilations
5. If narcotic overdose is suspected, **NALOXONE** 1 mg IN (½ each nare). Monitor for changes.
6. If no changes after 2-3 minutes, administer remaining **NALOXONE** 1 mg IN (½ each nare).
    a. Repeat every 2-3 minutes as needed until patient is breathing adequately on their own

BLS

1. Routine Medical Care.
2. Conduct FAST/VAN screen if neurologic cause suspected.
3. Check blood glucose level.
4. If patient is not breathing or not breathing adequately, assist with ventilations
5. If narcotic overdose is suspected, **NALOXONE**1 mg IN (½ each nare). Monitor for changes.
6. If no changes after 2-3 minutes, administer remaining **NALOXONE** 1 mg IN (½ each nare).
7. If no changes after first 2mg, repeat **NALOXONE** 2 mg IN (½ each nare).
    a. Repeat every 2-3 minutes as needed until patient is breathing adequately on their own
8. Obtain and transmit 12-lead ECG.

ILS

1. Routine Medical Care.
2. Conduct FAST/VAN screen if neurologic cause suspected.
3. Check blood glucose level.
4. If narcotic overdose is suspected, **NALOXONE** 0.4mg up to 2.0 mg IN (½ in each nare)/IV/IM/IO (titrate to return of adequate and spontaneous respirations).
    a. Repeat every 2-3 minutes as needed until patient is breathing adequately on their own
5. Perform 12-lead ECG; transmit if indicated.
6. Initiate lock or IV.

ALS

1. Routine Medical Care.
2. Conduct FAST/VAN screen if neurologic cause suspected.
3. Check blood glucose level.
4. If narcotic overdose is suspected, **NALOXONE** 0.4mg up to 2.0 mg IN (½ in each nare)/IV/IM/IO (titrate to return of adequate and spontaneous respirations).

   a. Repeat every 2-3 minutes as needed until patient is breathing adequately on their own
5. Perform 12-lead ECG.
6. Initiate lock or IV.
7. If unresponsive to treatments, nasogastric tube connected to low continuous suctioning.

NOTES:

- Altered level of consciousness can be caused by numerous conditions. Perform a physical exam and solicit a complete history to help determine underlying cause. Treat cause as appropriate.
- If capabilities are available, apply wave form capnography to monitor for respiratory drive

Medical Care

DIABETIC EMERGENCY

FR/EMR

1. Routine Medical Care.
2. If blood sugar is less than 60 mg/dL (or less than 80 mg/dL and exhibiting signs of hypoglycemia), and patient is conscious, able to swallow, and exhibiting signs of hypoglycemia, administer **ORAL GLUCOSE**. Alternatively, beverages or food items high in simple sugar content may be utilized.
3. Repeat blood glucose analysis.

BLS

1. Routine Medical Care.
2. If blood sugar is less than 60 mg/dL (or less than 80 mg/dL and exhibiting signs of hypoglycemia) and patient is conscious and able to swallow, administer **ORAL GLUCOSE**. Alternatively, beverages or food items high in simple sugar content may be utilized.
3. If blood sugar is less than 60 mg/dL (or less than 80 mg/dL and exhibiting signs of hypoglycemia) and patient is NOT conscious and able to swallow, administer **GLUCAGON** 2 mg IN (1/2 each nare). Or 1 mg IM for approved agencies.
4. Initiate advanced level intercept if patient remains altered or is not responsive to initial treatment. Do not delay transport.
5. Repeat blood glucose analysis.

ILS

1. Routine Medical Care.
2. If blood sugar is less than 60 mg/dL (or less than 80 mg/dL and exhibiting signs of hypoglycemia) and patient is conscious and able to swallow, administer **ORAL GLUCOSE**. Alternatively, juice or other beverages high in simple sugar content may be utilized.
3. If blood sugar is less than 60 mg/dL (or less than 80 mg/dL and exhibiting signs of hypoglycemia) and patient is NOT conscious or not able to swallow, establish IV and administer **D10W 250ml,** titrate to effect (run wide open until person reaches normal mentation). If unable to establish IV, **GLUCAGON** 2 mg IN (½ each nare) or 1 mg IM.
4. If patient initially presents with blood glucose level > 250 mg/dL or with signs of dehydration, administer 500mL **LACTATE RINGERS** bolus**.**
5. Repeat blood glucose analysis.
6. Continuous cardiac monitoring.

ALS

1. Routine Medical Care
2. If blood sugar is less than 60 mg/dL (or less than 80 mg/dL and exhibiting signs of hypoglycemia) and patient is conscious and able to swallow, administer **ORAL GLUCOSE**. Alternatively, juice or other beverages high in sugar content may be utilized.
3. If blood sugar is less than 60 mg/dL (or less than 80 mg/dL and exhibiting signs of hypoglycemia) and patient is NOT conscious or not able to swallow, establish IV and administer **D10W 250ml,** titrate to effect (run wide open until person reaches normal mentation). If unable to establish IV, **GLUCAGON** 2 mg IN (1/2 each nare) or 1 mg IM.
4. If patient initially presents with blood glucose level > 250 mg/dL or with signs of dehydration, administer 500mL **LACTATE RINGERS** bolus.
5. Repeat blood glucose analysis.
6. Continuous cardiac monitoring.

NOTES:

- Providers should also reference *Altered Level of Consciousness Protocol*.
- IO can be utilized in a diabetic emergency only after BOTH of the following have been met: at least 2 unsuccessful IV attempts AND glucagon has been administered with no improvement after 15 minutes.
- Note that you may use a 500ml bag of D10W, however, do not exceed 250ml infusion without reassessing blood glucose. May repeat additional 250ml infusion of D10W once if blood sugar remains under 60mg/dl.

Medical Care

STROKE/CVA

FAST Screen	
F	Face (droop)
A	Arms (drift, weakness)
S	Speech (slurred)
T	Time (last time seen normal)

VAN Screen – For LVO	**Positive VAN = Weakness + at least one of the following**
V	Visual Disturbance (field cut, double vision, blind new onset)
A	Aphasia (unable to speak, not understanding commands, mixed)
N	Neglect (forced gaze, inability to track to one side, unable to feel both sides at the same time, unable to identify own arm, ignoring one side)

If patient has a positive FAST and/or VAN exam notify the hospital of a "**STROKE ALERT: Positive FAST and/or VAN exam**"

FR/EMR

1. Routine Medical Care.
2. Protect paralyzed limbs from injury.
3. Position patient with head elevated 20 to 30 degrees unless systolic BP< 90 mmHg or trauma is present.

BLS

1. Routine Medical Care.
2. Protect paralyzed limbs from injury.
3. Provide an early notification to receiving hospital of a positive FAST exam or positive VAN screen.
4. Position patient with head elevated 20 to 30 degrees unless systolic BP< 90 mmHg or trauma is present.
5. Initiate advanced level intercept. Do not delay transport.

ILS

1. Routine Medical Care.
2. Protect paralyzed limbs from injury.
3. Provide an early notification to receiving hospital of a positive FAST exam or positive VAN screen.
4. Position patient with head elevated 20 to 30 degrees unless systolic BP< 90 mmHg or trauma is present.
5. Establish IV or lock. Draw blood tubes.
6. Continuous cardiac monitoring.
7. Establish 2nd IV if time allows.

ALS

1. Routine Medical Care.
2. Protect paralyzed limbs from injury.
3. Provide an early notification to receiving hospital of a positive FAST exam or positive VAN screen.
4. Position patient with head elevated 20 to 30 degrees unless systolic BP< 90 mmHg or trauma is present.
5. Establish IV or lock. Draw blood tubes.
6. Continuous cardiac monitoring.
7. Establish 2nd IV if time allows.

NOTES:

- Providers should also reference the *Altered Level of Consciousness Protocol.*
- Patient transport shall be initiated as soon as possible once the provider suspects the patient is having a CVA.
- Do not treat bradycardia with pacing/atropine if CVA is suspected.
- Leave initial FAST/VAN stroke worksheet at receiving facility.
- Patients shall be transported to a stroke center. See *Patient Destination* policy.

Medical Care

SEIZURES

FR/EMR & BLS

1. Routine Medical Care.

ILS

1. Routine Medical Care.
2. Establish saline lock or IV of **LACTATED RINGERS.**
3. Administer **LORAZEPAM** 2 mg IV OR **MIDAZOLAM** 2 mg IV. If unable to establish an IV, administer **LORAZEPAM** intranasal, 4 mg (2 mg in each nare) or 2 mg IM OR **MIDAZOLAM** intranasal, 4 mg (2 mg each nare) or 2mg IM.
4. May repeat **LORAZEPAM** 2mg IV/IO or 4mg IN every 3-5 minutes (Max 4mg) or **MIDAZOLAM** 2mg IV/IO or 4mg IN every 3-5 minutes (Max 10mg)
5. Continuous cardiac monitoring.

ALS

1. Routine Medical Care.
2. Establish saline lock or IV of **LACTATED RINGERS.**
3. Administer **LORAZEPAM** 2 mg IV/IO OR **MIDAZOLAM** 2 mg IV/IO. If unable to establish an IV, administer **LORAZEPAM** intranasal, 4 mg (2 mg in each nare) or 2 mg IM OR **MIDAZOLAM** intranasal, 4 mg (2 mg each nare) or 2mg IM.
4. May repeat **LORAZEPAM** 2mg IV/IO or 4mg IN every 3-5 minutes (Max 4mg) or **MIDAZOLAM** 2mg IV/IO or 4mg IN every 3-5 minutes (Max 10mg)
5. Continuous cardiac monitoring.

NOTES:

- Do not force anything between the teeth.
- Create safe surroundings for the patient (ensure patient's limbs and head do not strike other objects, remove moveable objects from around the patient, etc.). DO NOT RESTRAIN PATIENT.
- ILS/ALS: If definitive airway management is necessary and the patient has clenched teeth, consider drug assisted intubation protocol.

Medical Care

SUSPECTED POISONING - ORGANOPHOSPHATE

FR/EMR

1. Routine Medical Care.

BLS

1. Routine Medical Care.
2. Transport as soon as possible after decontamination.

ILS

1. Routine Medical Care.
2. Establish 2 large-bore IVs with **LACTATED RINGERS.** Give boluses to maintain a systolic BP > 90 mmHg.
3. **ATROPINE** 2 mg IV/IO every 3-5 minutes to maintain pulse of at least 70 and systolic BP > 90 mmHg.
4. Continuous cardiac monitoring.
5. Transport as soon as possible after decontamination.

ALS

1. Routine Medical Care.
2. Establish 2 large-bore IVs with **LACTATED RINGERS.** Give boluses to maintain a systolic BP > 90 mmHg.
3. **ATROPINE** 2 mg IV/IO every 3-5 minutes to maintain pulse of at least 70 and systolic BP > 90 mmHg.
4. Continuous cardiac monitoring.
5. Transport as soon as possible after decontamination.

NOTES:

- Common organophosphates: insecticides (malathion, parathion, diazinon, ethion, etc.), herbicides (tribufos, merphos, etc.), nerve gases (sarin, soman, VX, etc.)
- Signs and symptoms of organophosphate poisoning can be remembered with the acronym SLUDGE: Salivation, Lacrimation, Urination, Defecation, Gastrointestinal upset, and Emesis.
- ENSURE APPROPRIATE DECONTAMINATION. Do not transport patients prior to decontamination, as an enclosed environment with a contaminated patient can be extremely dangerous to providers. NOTIFY THE RECEIVING FACILITY AS SOON AS POSSIBLE FOR ACTIVATION OF THEIR DECONTAMINATION TEAM. DO NOT ENTER THE FACILITY UNLESS SPECIFICALLY ORDERED TO DO SO.
- Consider calling for additional advanced units (for additional atropine) if prolonged patient contact time is anticipated.

Medical Care

SUSPECTED POISONING OR DRUG OVERDOSE

FR/EMR

1. Routine Medical Care.
2. Gather all medications/pill bottles, etc and give to transporting agency.
3. If patient is not breathing or not breathing adequately, assist with ventilations
4. If narcotic overdose is suspected AND respiratory depression/failure is present, administer NALOXONE 1 mg IN (½ each nare). Monitor for changes.
5. If no changes after 2-3 minutes, administer remaining **NALOXONE** 1 mg IN (½ each nare).
    a. Repeat every 2-3 minutes as needed until patient is breathing adequately on their own

BLS

1. Routine Medical Care.
2. If patient is not breathing or not breathing adequately, assist with ventilations
3. If narcotic overdose is suspected AND respiratory depression/failure is present, administer **NALOXONE** 1 mg IN (½ each nare). Monitor for changes.
4. If no changes after 2-3 minutes, administer remaining **NALOXONE** 1 mg IN (½ each nare).
5. If no changes after first 2mg, repeat **NALOXONE** 2 mg IN (½ each nare).
    a. Repeat every 2-3 minutes as needed until patient is breathing adequately on their own

ILS

1. Routine Medical Care.
2. Initiate IV or saline lock.
3. Continuous cardiac monitoring.
4. If narcotic overdose is suspected AND respiratory depression/failure is present, **NALOXONE** 0.4mg-2.0mg IV (titrate to return of adequate and spontaneous respirations). If IV cannot be established, then administer naloxone 2.0 mg via IM or IN (1/2 each nare).
    a. Repeat every 2-3 minutes as needed until patient is breathing adequately on their own

ALS

1. Routine Medical Care.
2. Initiate IV or saline lock.
3. Continuous cardiac monitoring.
4. If narcotic overdose is suspected AND respiratory depression/failure is present, **NALOXONE** 0.4mg-2.0mg IV (titrate to return of adequate and spontaneous respirations). If IV cannot be established, then administer naloxone 2.0 mg via IM or IN (1/2 each nare).
    a. Repeat every 2-3 minutes as needed until patient is breathing adequately on their own
5. If aspirin, tricyclic antidepressant, or digoxin overdose is suspected, administer **SODIUM BICARBONATE** 50 mEq IV.

6. If calcium channel blocker is suspected and signs and symptoms present, administer **CALCIUM CHLORIDE**, 1g (IV/IO) over 2-3 minutes
7. If a beta blocker overdose is suspected and signs and symptoms present, administer **GLUCAGON,** 2 mg IN (½ each nare) or 1 mg IM

NOTES:

- Common tricyclic drugs include: Amitriptyline (Elavil), Imipraminoxide (Imiprex), Lofepramine (Lomont), Nortriptyline (Pamelor).
- Poison Control: 1-800-222-1222
- Consider prophylactic use of antiemetic (see Nausea and Vomiting Protocol)
- If stimulant overdose is suspected, monitor for hyperthermia, and treat per protocol.
- If Cyanide exposure is suspected, administer Oxygen at 15 LPM via non-rebreather.
- If Carbon Monoxide Poisoning is suspected, initiate C-Pap with peep of 5 cm H2O and place on cardiac monitor.
- Consult Medical and Poison Control if suspected Biological exposure is present.

Medical Care

SEPSIS

Indications:

- Patient above the age of 18

Miami Sepsis Score	
1	Body temp ≥ 38^{c} (100.4^{f}) or ≤ 35.5^{c} (96.0^{f})
1	Respiratory rate ≥ 22/minute
2	Shock Index ≥ 0.7 (Heart rate/Systolic BP)
	Composite Score

A **Sepsis Alert** should be called for the following:

- Miami Sepsis Score 3-4 with signs or history of an infection

Protocol:

FR/EMR

1. *Routine Medical Care*.
2. Check blood glucose level.
3. Reassess patient and vital signs every 5 minutes.

BLS

1. *Routine Medical Care.*
2. Early notification to receiving facility of a "sepsis alert" if patient meet above criteria.
3. Reassess patient and vital signs every 5 minutes.
4. Initiate advanced level intercept.
5. Check blood glucose level.
6. Apply, obtain, and transmit 12-lead ECG.
7. If the temperature is ≥104.0^{o} F, place a cold pack in each armpit as well as the posterior neck. Remove the cold packs if shivering begins.

ILS

1. *Routine Medical Care.*
2. Early notification to receiving facility of a "sepsis alert" if patient meet above criteria.
3. Reassess patient and vital signs every 5 minutes.
4. Initiate at least 1 large bore IV.
5. Administer 500 ml **LACTATED RINGERS** bolus to obtain systolic blood pressure of at least 90 mmHg. May repeat boluses in rapid succession until target SBP is reached and pulmonary edema is not suspected.
6. Check blood glucose level.
7. Apply and obtain 12-lead ECG.
8. Once SBP >90mmHg, titrate lactated ringers' rate to approximately 17 ml/min (1L/hr). Note time lactated ringers drip initiated.
9. Contact medical control early.
10. Verify all blood tubes drawn.
11. Establish 2nd large bore IV if time allows.
12. If the temperature is ≥104.0^{o} F, place a cold pack in each armpit as well as the posterior neck. Remove the cold packs if shivering begins.

ALS

1. *Routine Medical Care.*
2. Early notification to receiving facility of a "sepsis alert" if patient meet above criteria.
3. Reassess patient and vital signs every 5 minutes.
4. Apply and obtain 12-lead ECG.
5. Initiate at least 1 large bore IV.
6. Administer 500 ml **LACTATED RINGERS** bolus to obtain systolic blood pressure of at least 90 mmHg. May repeat boluses in rapid succession until target SBP is reached and pulmonary edema is not suspected.
7. Check blood glucose level.
8. If patient remains hypotensive initiate Norepinephrine infusion at 5mcg/min and titrate at 1mcg/min every 5 minutes to maintain a SBP ≥ 90mmHg or MAP >65. Max dose of 30 mcg/min Once SBP >90mmHg, titrate lactated ringers rate to approximately 17 ml/min (1L/hr). Note time lactated ringers drip initiated.
9. Verify all blood tubes drawn.
10. Establish 2nd large bore IV's if time allows.
11. If the temperature is ≥104.0° F, place a cold pack in each armpit as well as the posterior neck. Remove the cold packs if shivering begins.

NOTES:

- End tidal CO_2 readings <25 mmHg are/can be correlated with increase lactic acid.

Medical Care

ENVIRONMENTAL – NEAR DROWNING

FR/EMR

1. Routine Medical Care.

BLS

1. Routine Medical Care.
2. Remove wet clothing and dry patient.

ILS

1. Routine Medical Care.
2. Remove wet clothing and dry patient.
3. Initiate IV or lactated ringers lock.
4. Continuous cardiac monitoring.

ALS

1. Routine Medical Care.
2. Remove wet clothing and dry patient.
3. Initiate IV or lactated ringers lock.
4. Continuous cardiac monitoring.
5. If patient is unconscious, place nasogastric tube and connect to low, continuous suctioning.

Medical Care

ENVIRONMENTAL – RADIATION EXPOSURE

FR/EMR

1. Routine Medical Care.
2. Notify transporting unit of situation as soon as possible.

BLS

1. Routine Medical Care.
2. Notify receiving hospital as soon as possible. DO NOT ENTER RECEIVING FACILITY WITHOUT NOTIFYING OF SITUATION.

ILS & ALS

1. Routine Medical Care.
2. Do NOT initiate IV/IO unless absolutely necessary.
3. Notify receiving hospital as soon as possible. DO NOT ENTER RECEIVING FACILITY WITHOUT NOTIFYING OF SITUATION.

Medical Care

ENVIRONMENTAL – HYPOTHERMIA

FR/EMR & BLS

1. Routine Medical Care.
2. Protect from further heat loss.
3. Handle patient very gently.
4. Remove from cold environment (remove wet clothing, cover patient's head, cover patient with blankets).
5. Administer warm oxygen (use hot packs around oxygen tubing).
6. Place hot packs on central pulse points (axillary, femoral).

ILS & ALS

1. Routine Medical Care.
2. Protect from further heat loss.
3. Handle patient very gently.
4. Remove from cold environment (remove wet clothing, cover patient's head, cover patient with blankets).
5. Administer warm oxygen (use hot packs around oxygen tubing).
6. Continuous cardiac monitoring.
7. Place hot packs on central pulse points (axillary, femoral).
8. Establish IV and administer warmed **LACTATED RINGERS** 500 ml bolus

NOTES: Covered hot packs can be wrapped around IV tubing to heat fluids.

Medical Care

ENVIRONMENTAL – FROSTBITE

FR/EMR & BLS

1. Routine Medical Care.
2. Remove clothing covering affected area. Do not forcefully remove clothing that sticks to affected area.
3. Cover affected area with dry sterile dressing and splint.
4. Protect area from re-freezing.

ILS & ALS

1. Routine Medical Care.
2. Remove clothing covering affected area. Do not forcefully remove clothing that sticks to affected area.
3. Cover affected area with dry sterile dressing and splint.
4. Protect area from re-freezing.
5. Consider initiating *Pain Control* Protocol.

Medical Care

ENVIRONMENTAL – HEAT RELATED EMERGENCIES – CRAMPS, TETANY, SYNCOPE, EXHAUSTION, HEAT STROKE

FR/EMR

1. Routine Medical Care.
2. Move to cool environment.
3. Cool patient (place cold packs on central pulse points).
4. Do not massage cramping muscle.
5. If heat stroke is not suspected and patient is not nauseated, give 1-2 glasses of electrolyte containing solution (i.e. Gatorade), if available.

BLS

1. Routine Medical Care.
2. Move to cool environment.
3. Cool patient (place cold packs on central pulse points).
4. Do not massage cramping muscle.
5. Perform 12-lead ECG and transmit to receiving facility.
6. If heat stroke is not suspected and patient is not nauseated, give 1-2 glasses of electrolyte containing solution (i.e. Gatorade), if available.

ILS & ALS

1. Routine Medical Care.
2. Move to cool environment.
3. Cool patient (place cold packs on central pulse points).
4. Do not massage cramping muscle.
5. If heat stroke is not suspected and patient is not nauseated, give 1-2 glasses of electrolyte containing solution (i.e. Gatorade), if available.
6. Continuous cardiac monitoring.
7. Initiate IV TKO of **LACTATED RINGERS**. Give 500 ml fluid bolus. Repeat as needed

Notes:

- For patients with severe hyperthermia, consider active cooling with ice water immersion or application (if possible and patient does not have any ABC compromise) and it does not delay scene time for patient.
- Consider application of cold wet towels around the body

Medical Care

ENVIRONMENTAL – BITES AND ENVENOMATIONS

FR/EMR

1. Routine Medical Care.
2. Position patient supine.
3. Immobilize affected area/limb.
4. Monitor for allergic reaction.

BLS

1. Routine Medical Care.
2. Position patient supine.
3. Immobilize affected area/limb.
4. Monitor for allergic reaction.
5. Obtain 12-Lead ECG.

ILS & ALS

1. Routine Medical Care.
2. Position patient supine.
3. Immobilize affected area/limb.
4. Monitor for allergic reaction.
5. Continuous cardiac monitoring.
6. Consider initiating *Pain Control* Protocol.

NOTES:

- Do not attempt to suction out poison from the injection site.

Trauma Care

ROUTINE TRAUMA CARE

FR/EMR

1. Perform scene survey (assess for hazards, number of patients, mechanism of injury, special extrication needs, etc.).
2. Consider spinal precautions if mechanism warrants (refer to *Spinal Immobilization* Procedure*)*.
3. Assess level of consciousness.
4. Establish/confirm airway patency.
5. Assess breathing and circulation.
6. Obtain pulse oximetry reading.
7. Administer supplemental **OXYGEN** per *Oxygen Administration* Procedure.
8. Identify and treat life threatening conditions.
9. Perform rapid trauma assessment.
10. Continually reassess patient until transport service arrives.

BLS

1. Perform scene survey (assess for hazards, number of patients, mechanism of injury, special extrication needs, etc.).
2. Consider spinal precautions if mechanism warrants (refer to *Spinal Immobilization* Procedure*)*.
3. Assess level of consciousness.
4. Establish/confirm airway patency.
5. Assess breathing and circulation.
6. Obtain pulse oximetry reading.
7. Administer supplemental **OXYGEN** per *Oxygen Administration* Procedure.
8. Identify and treat life threatening conditions.
9. Perform rapid trauma assessment.
10. If patient meets “load and go” criteria, transport as soon as possible (see *Load and Go* Protocol). Ensure advanced level intercept is activated if patient condition or mechanism warrants.
11. Manage non-life threatening injuries (if patient is unstable, do this while enroute and as time allows)
12. Take vital signs every 5 minutes (unstable) or 15 minutes (stable). Ensure a blood glucose measure is performed.
13. Perform 12-lead ECG (unstable or significant mechanism of injury).
14. Perform secondary trauma survey if time and patient condition allows.

ILS

1. Perform scene survey (assess for hazards, number of patients, mechanism of injury, special extrication needs, etc.).
2. Consider spinal precautions if mechanism warrants (refer to *Spinal Immobilization* Procedure*)*.
3. Assess level of consciousness.
4. Establish/confirm airway patency.

5. Assess breathing and circulation.
6. Obtain pulse oximetry reading.
7. Administer supplemental **OXYGEN** per *Oxygen Administration* Procedure.
8. Identify and treat life threatening conditions.
9. Perform rapid trauma assessment.
10. If patient meets "load and go" criteria, transport as soon as possible (see *Load and Go* Protocol). Ensure advanced level intercept is activated if patient condition or mechanism warrants.
11. Manage non-life threatening injuries (if patient is unstable or mechanism warrants, all interventions shall be performed enroute).
12. Establish IV access.
    a. If patient is unstable, establish two large-bore IVs and administer 500 ml **LACTATED RINGERS** boluses, titrate to maintain a systolic blood pressure of 80 mmHg. Repeat 500ml bolus as needed to maintain systolic blood pressure. IO should be used in these patients if first attempt at IV access is unsuccessful.
    b. If patient is stable, but a significant mechanism of injury is present, establish IV access.
    c. If patient is stable and a low mechanism of injury is present, IV access may be established.
13. Take vital signs every 5 minutes (unstable) or 15 minutes (stable). Ensure a blood glucose measure is performed.
14. Perform 12-lead ECG and continuous cardiac monitoring (unstable, significant mechanism of injury, or trauma-induced chest pain).
15. Consider initiating *Pain Control* Protocol.
16. Perform secondary trauma survey if time and patient condition allows.

ALS

1. Perform scene survey (assess for hazards, number of patients, mechanism of injury, special extrication needs, etc.).
2. Consider spinal precautions if mechanism warrants (refer to *Spinal Immobilization Procedure)*.
3. Assess level of consciousness.
4. Establish/confirm airway patency.
5. Assess breathing and circulation.
6. Obtain pulse oximetry reading.
7. Administer supplemental **OXYGEN** per *Oxygen Administration* Procedure.
8. Identify and treat life threatening conditions.
9. Perform rapid trauma assessment.
10. If patient meets "load and go" criteria, transport as soon as possible (see *Load and Go* Protocol).
11. Manage non-life threatening injuries (if patient is unstable or mechanism warrants, all interventions shall be performed enroute).
12. Establish IV access.
    a. If patient is unstable, establish two large-bore IVs and administer 500 ml **LACTATED RINGERS** boluses (total), titrate to maintain a systolic blood pressure of 80 mmHg. Repeat 500ml bolus as needed to maintain systolic blood pressure. IO should be used in these patients if first attempt at IV access is unsuccessful.
    b. If patient is stable, but a significant mechanism of injury is present, establish IV access.
    c. If patient is stable and a low mechanism of injury is present, IV access may be established.

13. Take vital signs every 5 minutes (unstable) or 15 minutes (stable). Ensure a blood glucose measure is performed.
14. Perform 12-lead ECG and continuous cardiac monitoring (unstable, significant mechanism of injury, or trauma-induced chest pain).
15. Consider initiating *Pain Control* Protocol.
16. Perform secondary trauma survey if time and patient conditions allow.

Notes:

- Consider application of system approved Pelvic binder for pelvic fractures

Trauma Care

CRITICAL TRAUMA SITUATIONS – "LOAD & GO" & "Trauma Alerts"

FR/EMR

1. Routine Trauma Care.

BLS, ILS, ALS

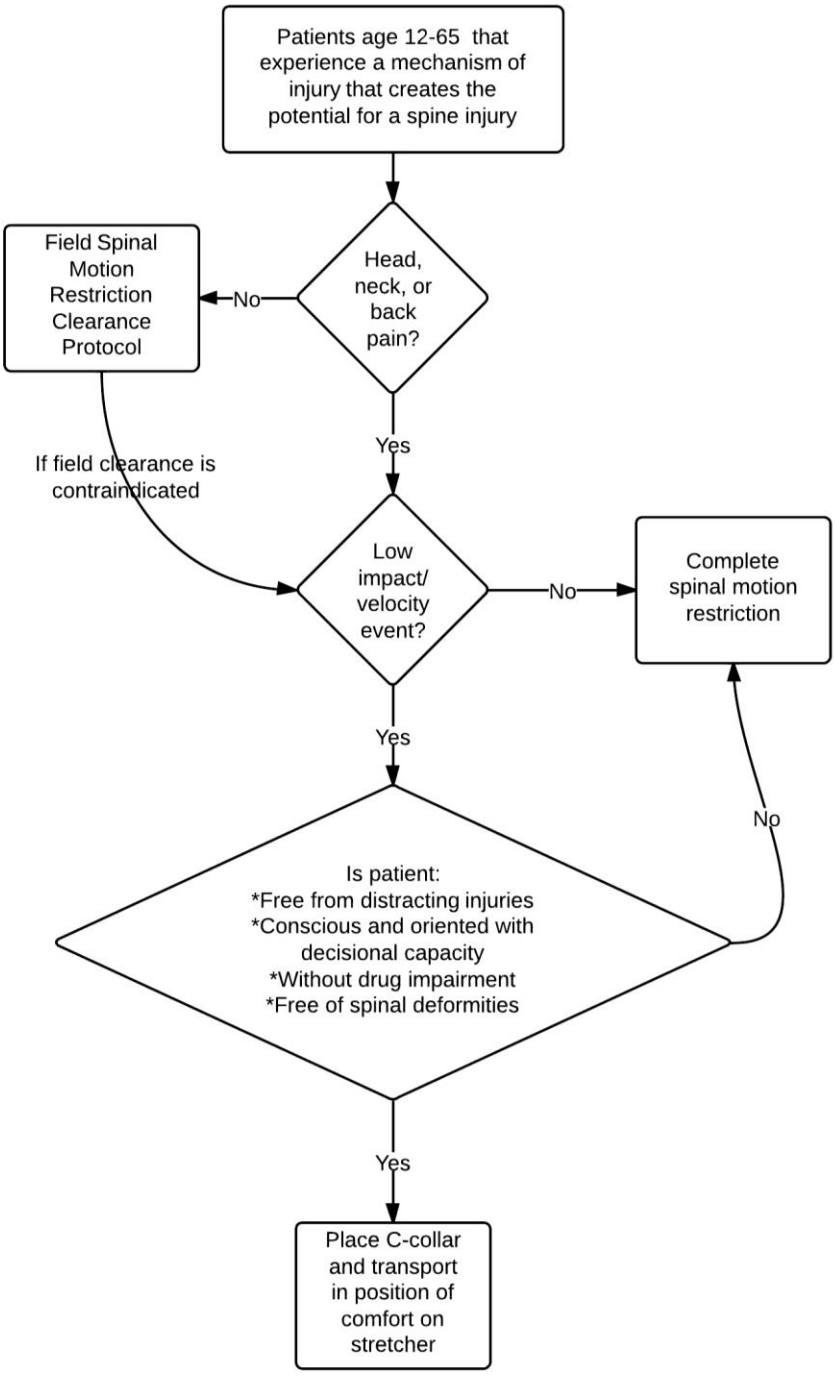
1. Routine Trauma Care.
2. Transport should be initiated as soon as possible.
3. DO NOT DELAY TRANSPORT WAITING FOR INTERCEPT. INTERCEPT SHOULD BE PERFORMED ENROUTE TO HOSPITAL.
4. If the patient has one of the following conditions below, notify the receiving hospital of a "**TRAUMA ALERT**":
    a. Penetrating Trauma to the head, neck or torso
    b. Patient is hemodynamically unstable (Systolic BP under 90 for an adult of Systolic under 80 for a pediatric) on two consecutive measurements of 5 minutes apart
    c. Application of a tourniquet by EMS provider
    d. Multiple proximal long bone fractures (ie, humerus or femoral fractures)
5. If a trauma does not meet above criteria, but there is concern about patient's condition, you may still call early and relay findings to hospitals and allow them to make decisions in regard to whether a Trauma Alert should be made or not.

Below is a list of conditions in which you should limit scene time

6. The following are critical situations (not an all-inclusive list) that require LOAD & GO transport:
    a. Head injury with unconsciousness, unequal pupils. Or decreasing level of consciousness (GCS≤10)
    b. Airway obstruction that cannot be quickly relieved by mechanical methods such as suction or positioning
    c. Conditions resulting in possible inadequate breathing
        i. Large open chest wound
        ii. Large flail chest
        iii. Tension pneumothorax
        iv. Major blunt chest injury
    d. Penetrating traumatic cardiopulmonary arrest
    e. Penetrating trauma to the head, neck or torso
    f. Shock (Hemodynamically unstable, B/P <70 SBP or HR > 120
    g. Signs of conditions that may rapidly lead to shock:
        i. Tender, distended abdomen
        ii. Pelvic instability
        iii. Bilateral femur fractures
    h. Application of a tourniquet by an EMS provider

Trauma Care

SMR DECISION TREE/ FIELD SPINAL MOTION RESTRICTION PROTOCOL



Notes

- If provider's clinical judgement deems the patient needs immobilized, providers may immobilize the patient.
- All patients below age 12 or above 65 should be immobilized unless clearance is obtained from medical control.
- This is applicable to patients experiencing traumatic head, neck, or spinal pain/injury

Trauma Care

TRAUMATIC CARDIOPULMONARY ARREST

FR/EMR

1. Routine Trauma Care.
2. Refer to *Cardiac Arrest Protocol* as applicable.

BLS, ILS, ALS

1. Routine Trauma Care.
2. If the cause of traumatic cardiopulmonary arrest is blunt force AND AED indicates "no shock advised," or asystole is noted by advance provider contact **MEDICAL CONTROL** for death declaration.
3. Refer to *Cardiac Arrest* Protocol as applicable.

Trauma Care

HEAD INJURY

FR/EMR

1. Routine Trauma Care.

BLS, ILS, ALS

1. Routine Trauma Care.
2. If signs of increased intracranial pressure, consider hyperventilating patient. See *Assisted Ventilations* Procedure below.

Assisted Ventilations

1. Hyperventilation should not be routinely used on patients
2. This is for use in patients with signs of herniation (blown pupil, posturing, bradycardia, decreasing GCS). GCS should be less than 8 or the patient unresponsive
3. If signs above are noted, ventilate between 14-18/minute to maintain EtCO2 between 30-35 mmhg (if capnography is available).

Trauma Care

SPINAL INJURY

FR/EMR, BLS, ILS

1. Routine Trauma Care.

ALS

1. Routine Trauma Care.
2. If neurogenic shock is suspected and patient is not responsive to fluid bolus, **NOREPINEPHRINE** infusion at 5mcg/min and titrate at 1mcg/min every 5 minutes to maintain a SBP ≥ 90mmHg or MAP > 65. Max dose of 30 mcg/min.

Trauma Care

THERMAL/ELECTRICAL BURNS/LIGHTNING

FR/EMR & BLS

1. Have patient removed from fire/remove fire from patient.
2. Routine Trauma Care.
3. Stop the burning process
    a. If burn occurred within 15 minutes, cover burns with dry, clean/sterile dressing and cool with sterile water.
    b. If burn occurred greater than 15 minutes prior, apply dry, clean/sterile dressings.
4. Remove patient's clothing/jewelry from affected area. If clothing sticks, do not remove.

ILS & ALS

1. Have patient removed from fire/remove fire from patient.
2. Routine Trauma Care.
3. Stop the burning process
    a. If burn occurred within 15 minutes, cover burns with dry, clean/sterile dressing and cool with sterile water.
    b. If burn occurred greater than 15 minutes prior, apply dry, clean/sterile dressings.
4. Remove patient's clothing/jewelry from affected area. If clothing sticks, do not remove.
5. Administer 500ml bolus of **LACTATED RINGERS**. Repeat to maintain B/P
6. Initiate *Pain Control Protocol*.

NOTES:

- Early intubation is required for significant inhalation burns.
- Avoid administering medications via intranasal route.
- Monitor 12 Lead EKG or continuous cardiac monitor for dysrhythmias and treat per appropriate protocol.

Trauma Care

CHEMICAL BURNS

FR/EMR

1. Routine Trauma Care.
2. Note chemical agent causing burn.
3. Wearing protective equipment, remove patient's clothing and jewelry. Contaminated clothing may cause continued exposure.
4. Irrigate or flush burn with copious amounts of water or saline, unless contraindicated.
    a. Dry powder burns should be brushed off before applying water
    b. Irrigate burns to the eye(s) for at least 15 minutes
    c. Alkaline burns should receive continuous irrigation

BLS

1. Routine Trauma Care.
2. Note chemical agent causing burn.
3. Wearing protective equipment, remove patient's clothing and jewelry. Contaminated clothing may cause continued exposure.
4. Irrigate or flush burn with copious amounts of water or saline, unless contraindicated.
    a. Dry powder burns should be brushed off before applying water
    b. Irrigate burns to the eye(s) for at least 15 minutes
    c. Alkaline burns should receive continuous irrigation
5. Ensure receiving hospital is notified of potential chemical exposure.

ILS & ALS

1. Routine Trauma Care.
2. Note chemical agent causing burn.
3. Wearing protective equipment, remove patient's clothing and jewelry. Contaminated clothing may cause continued exposure.
4. Irrigate or flush burn with copious amounts of water or saline, unless contraindicated.
    a. Dry powder burns should be brushed off before applying water
    b. Irrigate burns to the eye(s) for at least 15 minutes
    c. Alkaline burns should receive continuous irrigation
5. Ensure receiving hospital is notified of potential chemical exposure.
6. Initiate *Pain Control* Protocol.

NOTES:

- If time and patient condition allows, a Materials Safety Data Sheet (MSDS), Safety Data Sheet (SDS), Product Safety Data Sheet (PSDS), or equivalent should be obtained.
- Do not transport patients prior to appropriate decontamination efforts by trained hazardous materials responders.

Trauma Care

EXTREMITY INJURIES/AMPUTATED TISSUE

FR/EMR, BLS, ILS & ALS

1. Routine Trauma Care.
2. Extremity care:
    a. Check and record distal pulses, sensation, movement, tenderness, instability, crepitus (before and after splinting).
    b. Rest, ice, compression (elastic bandage) elevation, splint
    c. If extremity is severely angulated and pulses are absent, apply gentle traction to attempt to straighten it, then splint (if resistance is encountered, splint extremity in position found)
    d. DO NOT intentionally replace any protruding bone.
3. Amputation care:
    a. Control bleeding
    b. If tissue is partially amputated, NEVER COMPLETE THE AMPUTATION
    c. Attempt to recover the amputated part; collect all tissue, bone fragments, etc. Do not delay patient transport while attempting to recover amputated part.
    d. Apply wet sterile dressing to stump area
    e. Apply hemorrhage control agent (i.e. Quik-Clot)
    f. For uncontrolled hemorrhage of an extremity, apply EMS system approved tourniquet
4. Care of amputated part:
    a. Wrap in moist (saline) dressing. Do not immerse.
    b. Place part in waterproof bag or container and seal.
    c. Place the container in a second container filled with ice
    d. If possible, transport amputated part is transported with patient.
5. As appropriate, initiate *Pain Control* Protocol.

NOTES:

- Consider application of system approved Pelvic binder for pelvic fractures
- Consider wound packing for open wounds to the trunk or pelvis (see wound packing procedure for further information).

Trauma Care

HEMORRHAGIC SHOCK

FR/EMR, BLS, ILS

1. Routine Trauma Care.

ALS

1. Routine Trauma Care.
2. If patient remains hemodynamically unstable (SBP <80 mmHg) after bleeding control attempts administer fluid bolus of 500 ml of **LACTATED RINGERS**.
3. Administer **TRANEXAMIC ACID** (TXA) 2 gm over 1 minute IVP. This may be done co-current with fluid bolus
4. Additional lactated ringer boluses may be necessary (reference *Routine Trauma Care* Protocol).
5. Notify receiving hospital of TXA administration.

NOTES:

- TXA cannot be administered if trauma occurred more than 4 hours prior.
- TXA can be utilized in suspected GI Bleed, Vaginal Bleed or Postpartum Hemorrhage with signs of shock (tachycardia and/or hypovolemia, altered mental status)
- TXA may be used for epistaxis that is uncontrollable
    - Soak a 4x4 gauze(s) with TXA, once fully soaked, place gauze into nare. Leave enough gauze out of the nare so that if necessary, gauze may be removed

Trauma Care

CRUSH/SUSPENSION

FR/EMR

1. Routine Trauma Care.
2. If an extremity is involved, place EMS system approved tourniquet on affected extremity as close to crush area as possible.

BLS & ILS

1. Routine Trauma Care.
2. If an extremity is involved, place EMS system approved tourniquet on affected extremity as close to crush area as possible.

PRIOR TO RELEASE OF COMPRESSION/SUSPENSION FORCE

3. Nebulized **ALBUTEROL SULFATE**. Repeat once. (Do NOT administer ipratropium unless otherwise indicated)

ALS

1. Routine Trauma Care.
2. If an extremity is involved, place EMS system approved tourniquet on affected extremity as close to crush area as possible.
3. Administer 1000 mL **LACTATED RINGERS** bolus.
4. In addition to **LACTATED RINGERS** bolus, **SODIUM BICARBONATE**. Mix 50 mEq in 1000 mL of **NORMAL SALINE**. Administer the entire 1000 mL bolus at wide open rate (using 10gtts tubing).

PRIOR TO RELEASE OF COMPRESSION/SUSPENSION FORCE

5. Nebulized **ALBUTEROL SULFATE**. Repeat once. (Do NOT administer ipratropium unless otherwise indicated)

AFTER RELEASE OF COMPRESSION/SUSPENSION FORCE

6. If hyperkalemia is suspected (compression >4 hours; suspension >2 hours, abnormal ECG showing peaked T-waves, absent P-waves, or widened QRS, **CALCIUM CHLORIDE** 1 gm slow IVP.

NOTES:

- Rescue of victims is paramount in suspension situations.

General Protocols

PAIN CONTROL

FR/EMR

1. Routine Trauma, Medical, and/or Cardiac Care.

BLS

1. Routine Trauma, Medical, and/or Cardiac care.
2. Administer 400mg of **IBUPROFEN** by mouth for minor to moderate pain (See Note section)
3. Consider **ONDANSETRON** 4mg ODT for nausea.

ILS

1. Routine Trauma, Medical, and/or Cardiac care
2. Pain medication may be given without calling medical control if systolic blood pressure is greater than 90 mmHg. If systolic blood pressure is less than 90 mmHg, pain is described as "headache" in nature, head injury is present, CVA is suspected, OR if patient has any reported or observed diminished mentation, Contact **MEDICAL CONTROL** prior to administering pain control.
3. Administer 400mg of **IBUPROFEN** by mouth for minor to moderate pain
4. For pain moderate to extreme pain, **FENTANYL** 1 mcg/kg IV/IM/IN (max single dose of 100mcg) Dose should be decreased by ½ if patient has a history of renal disease.
5. After administration of fentanyl, consider **ONDANSETRON** 4 mg IV/IN/ODT for prophylactic treatment of nausea.
6. For continued pain after 10 minutes, **FENTANYL** 1mcg/kg IV/IM/IN (max 50mcg for repeat dose).
7. May be repeated after another 10 minutes 1mcg/kg (max 50mcg for repeat dose, max of 200mcg total).

ALS

1. Routine Trauma, Medical, and/or Cardiac care.
2. Pain medication may be given without calling medical control if systolic blood pressure is greater than 90 mmHg. If systolic blood pressure is less than 90 mmHg, pain is described as "headache" in nature, head injury is present, CVA is suspected, OR if patient has any reported or observed diminished mentation, Contact **MEDICAL CONTROL** prior to administering pain control.
3. Administer 400mg of **IBUPROFEN** by mouth for minor to moderate pain
4. For pain moderate to extreme pain, **FENTANYL** 1 mcg/kg IV/IM/IN (max single dose of 100mcg) Dose should be decreased by ½ if patient has a history of renal disease.
5. After administration of fentanyl, consider **ONDANSETRON** 4 mg IV/IN/ODT for prophylactic treatment of nausea.
6. For continued pain after 10 minutes, **FENTANYL** 1mcg/kg IV/IM/IN (max 50mcg for repeat dose).
7. May be repeated after another 10 minutes 1mcg/kg (max 50mcg for repeat dose, max of 200mcg total).

8. For continued pain and if maximum Fentanyl dose has been administered, administer 0.3mg/kg of **KETAMINE** IV/IO infused in a 100ml bag of Normal Saline over 15 minutes with **MEDICAL CONTROL** orders.

NOTES:

- If patient is allergic to a medication in the pain control protocol, do not administer that medication.
- Overall goal of pain management is for the patient to be pain free. If you administer the maximum dosage of medications under this protocol, contact medical control for further orders.
- **Closely monitor patient's respiratory status. Continuous SpO2, cardiac monitoring, and capnography (if available) is required on patients receiving pain control.**
- Ibuprofen is specifically for traumatic minor to moderate pain (ie, sprains, strains, ect.)
- Note, ILS and ALS non-transport (excluding chase vehicles) carry reduced Fentanyl totals. They will be unable to give repeat doses.

General Protocols

NAUSEA/VOMITING

FR/EMR

1. Routine Trauma, Medical, and/or Cardiac Care.
2. Prevent risk of aspiration by placing patient in left lateral recumbent position or slightly tilting backboard (if full SMR instituted).

BLS

1. Routine Trauma, Medical, and/or Cardiac Care.
2. Prevent risk of aspiration by placing patient in left lateral recumbent position or slightly tilting backboard (if full SMR instituted).
3. **ONDANSETRON** 4mg ODT.

ILS

1. Routine Trauma, Medical, and/or Cardiac Care.
2. Prevent risk of aspiration by placing patient in left lateral recumbent position or slightly tilting backboard (if full SMR is instituted).
3. Establish IV.
4. **ONDANSETRON** 4mg IV or ODT. If unable to establish IV, ondansetron may be administered IN (2 mg each nare). Ondansetron may be repeated once in 10 minutes if patient remains nauseous/vomiting.

ALS

1. Routine Trauma, Medical, and/or Cardiac Care.
2. Prevent risk of aspiration by placing patient in left lateral recumbent position or slightly tilting backboard (if full SMR is instituted. Also consider placing nasogastric tube with low continuous suctioning).
3. Establish IV.
4. **ONDANSETRON** 4mg IV or ODT. If unable to establish IV, ondansetron may be administered IN (2 mg each nare). Ondansetron may be repeated once in 10 minutes if patient remains nauseous/vomiting.

NOTES:

- Keep suction ready

General Protocols

CHEMICAL RESTRAINT

FR/EMR

1. Routine Medical Care.
2. Work with law enforcement to safely restrain patient, if necessary. Refer to *Patient Restraint* procedure.

BLS

1. Routine Medical Care.
2. Work with law enforcement to safely restrain patient, if necessary. Refer to *Patient Restraint* procedure.

ILS

1. Routine Medical Care.
2. Work with law enforcement to safely restrain patient, if necessary. Refer to *Patient Restraint* procedure.
3. Administer **LORAZEPAM**, 2mg IV/IM/IN (1 mg each nare).
4. Continuous cardiac monitoring, pulse oximetry, and waveform capnography (if available) must be initiated once patient's demeanor allows.
5. Contact **MEDICAL CONTROL** as soon as possible.

ALS

1. Routine Medical Care.
2. Work with law enforcement to safely restrain patient, if necessary. Refer to *Patient Restraint* procedure.
3. Administer **LORAZEPAM**, 2mg IV/IM/IN (1 mg each nare).
4. If after 5 minutes there is no decrease in combativeness, administer **KETAMINE**, 2 mg/kg IV –OR– 4 mg/kg IM. If patient is exhibiting signs of Excited Delirium (extreme agitation, delirium, hyperthermia, acute onset) administer **KETAMINE** as first line medication (use above listed doses).
5. Continuous cardiac monitoring, pulse oximetry, and waveform capnography (if available) must be initiated once patient's demeanor allows.
6. Contact **MEDICAL CONTROL** as soon as possible. Additionally, Contact **MEDICAL CONTROL** for repeat doses of Ketamine.

NOTES:

- IM Injections should be given in the Vastus Lateralis or the Dorsogluteal. Injections should not exceed 5mL per site.

DRUG ASSISTED INTUBATION

FR/EMR, BLS, ILS

1. N/A

ALS

1. Routine medical/trauma/cardiac care
2. Follow DAI Check list
3. **KETAMINE** 2mg/kg
4. **ROCURONIUM** 1mg/kg
5. Perform intubation.
6. Administer KETAMINE 1mg/kg every 10 minutes for post sedation care

   Note: if you run out of Ketamine, you may administer VERSED 0.05mg/kg every 3-5 minutes (Max 10mg)

   DAI requires the use of a video laryngoscope.

Drug Assisted Intubation Check List

Preparation Time Started: _____

□Standard Nasal Cannula □NPA □Suction □ET Tube □Video Laryngoscope
□BIAD □Bougie □BVM w/ PEEP valve □Capnography □Tape
□Roles Assigned □Tube Holder □Syringe for ETT
□Ketamine □Rocuronium □IV/IO Established
Initial SpO_2(Prior to Intervention):_____

Sedation/Oxygenation

□**Ketamine 2.0mg/kg slow IV/IO Dose: _____ Time Given:_____**
□Insert NPA and apply nasal cannula at max flow rate
□Pre-oxygenate patient with BVM at normal rate
- □ Apply inline capnography with BVM
- □ Begin PEEP at 5cmH_2O and increase as needed (max PEEP of 10)
- □ Ventilate for 3 minutes
- □ If resources allow, preform 2 person BVM ventilations

□Position patient at a 30° angle (the ear to sternal notch position)
□Prepare intubation equipment (ET tube, video laryn. BIAD, suction, bougie)
Pre-intubation SpO_2:_____ Pre-intubation Capnography: _____

Intubation

□**Administer Rocuronium IV/IO 1mg/kg Dose: _____Time Given:_____**
□Ventilate for 90 second
□Use video laryngoscope, 1 attempt for a max attempt time at 20 seconds
□If unable to intubate within 20 seconds, abort attempt and insert a BIAD

Post Intubation

□Confirm placement of ET Tube or BIAD
□Ventilate at a rate of 10/min
□Secure placement of ET Tube or BIAD
□Post-intubation SpO_2:_____ □Post-intubation Capnography: _____
□Administer Ketamine 1mg/kg every **10 minutes** to maintain sedation (from start of initial dose)
□Contact receiving facility to notify of use of DAI
□Med_____ **IV/IO Dose:** _____ **Time Given:**_____
□Med_____ **IV/IO Dose:** _____**Time Given:**_____
□Med_____ **IV/IO Dose:** _____**Time Given:**_____

Data

Time Completed:_____ Lead Provider: _____

Notes

*Use of video laryngoscope is required
*Attempt is defined as the tube advancing towards the trachea (note for pre-loaded tubes, this means the tube pass the end of the blade or if using a non-preloaded blade, it is when the tube passes the teeth)
*Ensure patient receives Ketamine every 10 minutes after administration of first does, failure can lead to patient being conscious but paralyzed
*If you run out of ketamine, you may utilize Versed 0.05mg/kg every 3-5 minutes (Max 10mg) for sedation

Version 1.1 – 5/2020 (all other versions are obsolete)

****This check list must be completed on ALL DAI's and attached to the run report****

General Protocols

BEHAVIORAL HEALTH PATIENTS

Refer to Emotionally Disturbed Policy for further information. Ensure scene safety on all calls.

FR/EMR, BLS, ILS

1. Routine medical care
2. Ensure there are no underlying medical or trauma issues
3. Attempt to calmly reassure patient. Allow the patient to speak. Maintain a non-judgmental attitude when interacting with the patient, family and bystanders
4. If patient is suicidal, or clearly incompetent and dangerous to self or others, it is in the best interest of the patient to receive further treatment.
5. Attempt to gain cooperation with patient and voluntary agreement to seek further treatment at the appropriate facility
6. If patient is uncooperative, work with police to determine the need for involuntary paperwork.
7. If necessary for patient or provider safety, contact ALS to consider the use of chemical restraint policy.

ALS

1. Routine medical care
2. Ensure there are no underlying medical or trauma issues
3. Attempt to calmly reassure patient. Allow the patient to speak. Maintain a non-judgmental attitude when interacting with the patient, family and bystanders
4. If patient is suicidal, or clearly incompetent and dangerous to self or others, it is in the best interest of the patient to receive further treatment.
5. Attempt to gain cooperation with patient and voluntary agreement to seek further treatment at the appropriate facility
6. If patient is uncooperative, work with police to determine the need for involuntary paperwork.
7. If necessary, consider use of chemical restraint protocol for patients who are combative or uncooperative.

Note

- EMS does not fill out involuntary commitment forms
- EMS may accept involuntary commitment forms completed by law enforcement or a licensed clinical social work or other appropriate mental health providers
- Forms must be fully completed and legible to be accepted.

OB/GYN

PRE-ECLAMPSIA, ECLAMPSIA, TOXEMIA

FR/EMR, BLS, ILS

1. Assure an airway and ventilate as needed.
2. Routine Medical Care.
3. Assure minimal stimulation (handle gently, do not check pupil reaction with light).
4. If patient is having seizures, follow *Seizures* protocol.

ALS

1. Assure an airway and ventilate as needed.
2. Routine Medical Care.
3. Assure minimal stimulation (handle gently, do not check pupil reaction with light).
4. If patient is having seizures, follow *Seizures* protocol.
5. **MAGNESIUM SULFATE**, 2-4 g SLOW IV (rate not to exceed 1gram/minute). Do not lower BP to less than 130/80.

NOTES:

- Definition: Coma and convulsive seizures or SBP greater than 140, diastolic greater than 90, occurring between the 20th week of pregnancy and the end of the first week postpartum.
- Calcium chloride is useful for magnesium sulfate overdose

OB/GYN

IMPENDING DELIVERY

FR/EMR, BLS

1. Routine Medical Care.
2. Obtain a complete history
3. Position patient on left side if 2nd or 3rd trimester. Elevate feet 10-12 inches if hypotensive.

ILS & ALS

1. Routine Medical Care.
2. Obtain a complete history
3. Position patient on left side if 2nd or 3rd trimester. Elevate feet 10-12 inches if hypotensive.
4. If hypotensive, give 250 ml normal lactated ringers
5. Monitor ECG, if indicated

NOTES:

- History questions: length of gestation, previous pregnancies (gravida), # of children from previous pregnancies (para), due date, history of complications of pregnancy, pain level, contraction status/frequency, membrane status, anticipated multiple birth, estimate bleeding, high risk factors.
- High risk factors: lack of prenatal care, drug abuse, teenage pregnancy, history of diabetes, hypertension, cardiac diseases, previous breech or c-section deliveries, pre-eclampsia/eclampsia/toxemia

OB/GYN

CHILDBIRTH: NORMAL DELIVERY

FR/EMR & BLS

1. If field delivery is imminent, allow delivery to progress spontaneously.
2. Support baby's head so that it doesn't emerge too quickly.
3. Tear amniotic membrane if it is still intact and visible outside the vagina.
4. Check for cord around neck. If cord is around neck, try to slip it over the shoulder and head. If unable to remove the cord from around neck, place umbilical clamps 2 inches apart and cut cord between clamps.
5. The baby will be wet and slippery. Carefully support head throughout delivery. Suction baby's mouth then nose with bulb syringe as soon as head emerges.
6. Tell the mother to resume pushing. Support the head as it rotates. A slight lowering of the baby to allow delivery of the anterior (top) shoulder, and then gentle lifting to allow delivery of the posterior (bottom) shoulder may be helpful. The baby should deliver completely.

AFTER DELIVERY

7. Routine Medical Care.
8. Placenta should deliver within 20-30 minutes. Do not delay transport while waiting for placenta to deliver.
9. Observe for excessive bleeding.

ILS & ALS

1. If field delivery is imminent, allow delivery to progress spontaneously.
2. Support baby's head so that it doesn't emerge too quickly.
3. Tear amniotic membrane if it is still intact and visible outside the vagina.
4. Check for cord around neck. If cord is around neck, try to slip it over the shoulder and head. If unable to remove the cord from around neck, place umbilical clamps 2 inches apart and cut cord between clamps.
5. The baby will be wet and slippery. Carefully support head throughout delivery. Suction baby's mouth then nose with bulb syringe as soon as head emerges.
6. Tell the mother to resume pushing. Support the head as it rotates. A slight lowering of the baby to allow delivery of the anterior (top) shoulder, and then gentle lifting to allow delivery of the posterior (bottom) shoulder may be helpful. The baby should deliver completely.

AFTER DELIVERY

7. Routine Medical Care.
8. Placenta should deliver within 20-30 minutes. Do not delay transport while waiting for placenta to deliver.
9. Observe for excessive bleeding.
10. IV Lactated ringers (1000 mL) with macrodrip tubing, TKO if SBP > 100 mmHg. Run wide open if SBP < 100 mmHg.

OB/GYN

SEVERE VAGINAL HEMORRHAGE (Postpartum or Miscarriage)

FR/EMR & BLS

1. Assure an airway, ventilate as needed.
2. Routine Medical Care.
3. Place a sanitary napkin over the vaginal opening. Make a note for the time the napkin was placed. Remove pads as they become soaked, but save all pads to use in evaluating blood loss.
4. Save all tissue that is passed.
5. Massage fundus of uterus to keep firm and contracted.
6. If patient becomes hypotensive, position patient on left side with legs elevated.

ILS

1. Assure an airway, ventilate as needed.
2. Routine Medical Care.
3. Place a sanitary napkin over the vaginal opening. Make a note for the time the napkin was placed. Remove pads as they become soaked, but save all pads to use in evaluating blood loss.
4. Save all tissue that is passed.
5. Massage fundus of uterus to keep firm and contracted.
6. If patient becomes hypotensive, position patient on left side with legs elevated.
7. Promptly transport patient.
8. IV Lactated Ringers (1000 mL) with macrodrip tubing, TKO if SBP > 90 mmHg. Run wide open if SBP<90 mmHg.

ALS

1. Assure an airway, ventilate as needed.
2. Routine Medical Care.
3. Place a sanitary napkin over the vaginal opening. Make a note for the time the napkin was placed. Remove pads as they become soaked, but save all pads to use in evaluating blood loss.
4. Save all tissue that is passed.
5. Massage fundus of uterus to keep firm and contracted.
6. If patient becomes hypotensive, position patient on left side with legs elevated.
7. Promptly transport patient.
8. IV Lactated Ringers (1000 mL) with macrodrip tubing, TKO if SBP > 90 mmHg. Run wide open if SBP<90 mmHg.
9. Consider administering **TRANEXAMIC ACID** (TXA) 2 gm IVP over 1 minutes

OB/GYN

ABNORMAL DELIVERIES – PROLAPSED CORD

FR/EMR

1. Routine Medical Care.
2. Oxygen via nasal cannula 4 liters per minute.

BLS

1. Routine Medical Care.
2. Oxygen via nasal cannula 4 liters per minute.
3. Transport immediately.
4. Place mother in knee-chest position or in a supine position with hips elevated on pillow.
5. Protect cord from being compressed by placing sterile gloved hand in vagina between pubic bone and presenting part with cord between fingers and exert counter pressure against presenting part. Keep hand in position until relieved.
6. Palpate cord for pulsations.
7. DO NOT ATTEMPT TO PUSH CORD BACK.
8. Keep exposed cord moist and warm.

ILS & ALS

1. Routine Medical Care.
2. Oxygen via nasal cannula 4 liters per minute.
3. Transport immediately.
4. Place mother in knee-chest position or in a supine position with hips elevated on pillow.
5. Protect cord from being compressed by placing sterile gloved hand in vagina between pubic bone and presenting part with cord between fingers and exert counter pressure against presenting part. Keep hand in position until relieved.
6. Palpate cord for pulsations.
7. DO NOT ATTEMPT TO PUSH CORD BACK.
8. Keep exposed cord moist and warm.
9. IV of Lactated Ringers TKO enroute.

OB/GYN

ABNORMAL DELIVERIES – BREECH PRESENTATION

FR/EMR, BLS, ILS, ALS

1. Routine Medical Care.
2. Oxygen via nasal cannula 4 LPM.
3. Transport immediately.
4. Never attempt to pull the baby from the vagina by the legs or trunk.
5. As soon as legs are delivered, support baby's body.
6. After shoulders are delivered, gently elevate trunk and legs to aid in delivery of head (if face down).
7. Head should deliver in 30 seconds. If not – reach 2 fingers into the vagina to locate the infant's mouth. Press vaginal wall away from baby's mouth to force an airway. Apply gentle pressure to the mother's fundus.

OB/GYN

RAPE/SEXUAL ASSAULT

FR/EMR, BLS, ILS & ALS

1. Ensure scene safety. Survey the scene giving special consideration to preserving any articles of evidence on or around the patient.
    a. Discourage patient from changing clothes, urinating, or washing/showering.
    b. Collaborate with police to determine what articles (e.g. clothing) will be transported with the patient.
    c. Do not physically examine genital area unless there are apparent injuries which need treatment.
    d. All linen used by the patient should be left with the patient at the Emergency Department.
2. If patient is injured: Routine trauma care. If no obvious injuries, routine medical care.
3. Notify law enforcement (if not already at scene).
4. Only ask questions pertinent to injury.
5. See *Reporting of Suspected Crime* policy/procedure.

Area Hospitals

Hospital	Sexual Assault Treatment Facility or Transfer Facility	Treatment for Pediatrics (Patients 12 and younger)
Carle BroMenn	Treatment	Transfer
OSF St. Joseph	Treatment	Treatment
Warner Hospital	Transfer	Transfer
St. Margaret's	Transfer	Transfer
IVCH	Transfer	Transfer
OSF St. James	Transfer	Transfer
OSF St. Francis	Treatment	Treatment
Pekin Hospital	Transfer	Transfer
Methodist	Treatment	Transfer
Hopedale	Transfer	Transfer
Carle Hospital	Treatment	Treatment
Decatur Memorial	Treatment	Transfer

6. **Treatment Facility** – Means the hospital can provide forensic and evidence collection of a patient who experienced a sexual assault
7. **Transfer Facility** – Means the hospital can treat any life threats, however the patient will need to be transferred to another facility for evidence collection/forensics of the sexual assault
8. **Pediatric Facility** – Specific to sexual assault evidence collection, this is for patients *age 12 years and younger*. If patient is brought to an adult treatment facility or transfer facility, any life threats or other related issues may receive treatment, however they will need to be transferred to a pediatric specific facility for evidence collection of a sexual assault.

Notes

9. *It is important to note that this memo is specific to sexual assault evidence collection.

10. *This is specific to events that have occurred within the last 7 days. If a patient experienced a sexual assault greater than 7 days, they may not be transferred as it may be difficult to collect evidence by that time. Whether evidence is collected or not is at the determination of the ER physician and staff. EMS does NOT make the determination whether evidence is to be collected or not.
11. *Agencies who do are in rural settings and do not typically transport to a treatment facility or are geographically distant from a treatment facility should transport the patient to the close's appropriate facility.
12. *If patient is in extremis (i.e experiencing a life threat or is unstable), transport to the close's appropriate facility.
13. *Patients still have the right, if they meet all the requirements (age, orientation, ect), to choose their destination choice. However, it is important that providers educate their patients in facilities ability to treat specific conditions.

ABUSE

SUSPECTED DOMESTIC ABUSE/NEGLECT

FR/EMR, BLS, ILS & ALS

1. General approach:
    a. Consider scene safety issues. If the suspected offender is present and interferes with transportation of the patient or is influencing the patient's acceptance of medical care, contact police and medical control and appropriate action.
    b. Routine medical/trauma care.
    c. Treat obvious injuries or illness.
    d. Survey scene for evidence of abuse neglect:
        i. Environmental
        ii. Interaction with family members
        iii. Discrepancies in history of events
        iv. Injury patterns that do not correlate with the history of patient use and mobility.
        v. Signs of intentional injury or emotional harm.
2. Transport.
3. Prehospital providers are not mandated to report suspected domestic abuse but are required to discretely offer the victim information on where assistance may be obtained.
4. Thoroughly document the history and physical exam findings on the patient care report.

NOTE:

- As with all patients, confidentiality is of the utmost importance. No suspicion or accusations of abuse should be transmitted over the radio.

ABUSE

SUSPECTED ELDER ABUSE/NEGLECT

FR/EMR, BLS, ILS, ALS

1. General approach:
    a. Consider scene safety issues. If the suspected offender is present and interferes with transportation of the patient or is influencing the patient's acceptance of medical care, contact police and medical control for appropriate action.
    b. Routine medical/trauma care.
    c. Treat obvious injuries or illness.
    d. Survey scene for evidence of abuse neglect:
        i. Environmental
        ii. Interaction with family members
        iii. Discrepancies in history of events
        iv. Injury patterns that do not correlate with the history of patient use and mobility.
        v. Signs of intentional injury or emotional harm.
2. Transport.
3. Upon arrival, notify the receiving physician or nurse of the suspected abuse. Healthcare workers (including prehospital providers) are mandated by Illinois law to report cases of suspected abuse or neglect. You may contact the elderly abuse hotline 1-800-252-4343.
4. Thoroughly document the history and physical exam findings on the prehospital report.

NOTES:

- As with all patients, confidentiality is of the utmost importance. No suspicion or accusations of abuse should be transmitted over the radio.

Version History

The following is the update lineage to the EMS protocols manual. Editions prior to August 9th, 2021 are NOT included in this history. Providers shall routinely check the system website (www.mcleancountyems.org) to verify this copy is the most current edition. Only the most current edition, as listed on the website, shall be used for medical guidance. Previous editions shall be considered obsolete.

Version	Date of Enactment	List of Changes from Previous
Initial Draft	N/A: Internal release only	N/A: not released to public
1.0	June 1st, 2019	Draft for public review, waiting submission to IDPH, subject to change
1.1	July 10th, 2019	Draft for public review, grammar edits and language clarification
1.2	September 9th, 2019	Grammatical errors and formatting errors corrected
1.3	November 18th, 2019	Grammatical errors and formatting errors corrected. Clarifications added.
1.4	May 6th, 2020	Grammatical errors corrected. Addition of the following: • Nitro drip change for CHF • Max ipratropium uses • Narcan clarification • Trauma Alert clarification • DAI chart update • Topical TXA • SA Chart
2.0	August 9th, 2021	• Increased Nitro drips for MI & CHF • TXA Changes • Verbiage change for Hyperthermia • Reduced Ketamine Pain Drip • Additional for repeat seizure medications
3.0	January 2nd, 2024	• STEMI Criteria moved to Cardiac Care • Range for initial dose of Nitro drip for Chest Pain Protocol with increased frequency • Removal of gastric ulcer disease contraindication for ASA • Confirmation of tube placement • American Heart Association BLS Algorithm • Post-ROSC Protocol • Notes for Sodium Bicarbonate & Calcium Chloride in cardiac arrest/rhythm specific treatment protocols • Increased max norepinephrine drip • Epinephrine-push added to hypotensive/cardiogenic shock • Diagnosis of SVT criteria changed • Atropine increased for bradycardia
3.0	January , 2024	•