

FR/EMR EDITION

# Field Treatment Protocols

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McLean County Area EMS System

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### Acceptable Abbreviations

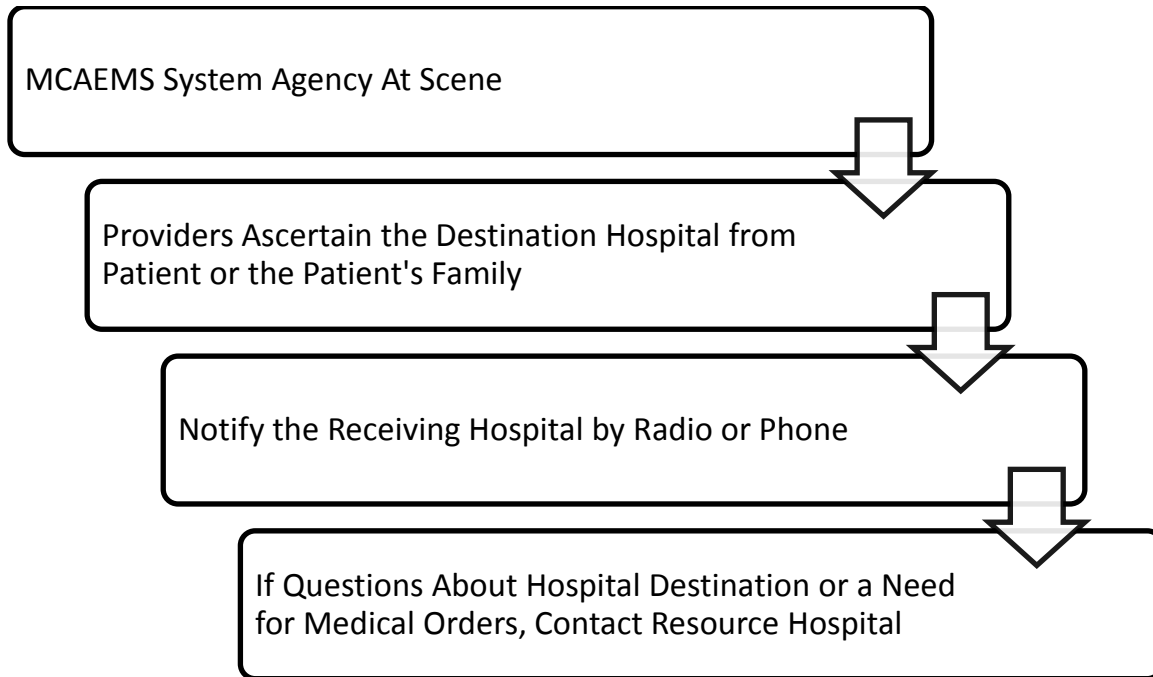
1 <sup>o</sup>	first degree	D/C	discontinue
2 <sup>o</sup>	second degree	dL	deciliter
3 <sup>o</sup>	third degree	DNR	do not resuscitate (order)
♀	female	D.O.A.	dead on arrival
♂	male	D5W	5% dextrose in water
@	at	ECG or EKG	electrocardiogram
abd	abdomen	ECRN	emergency communications radio nurse
AC	antecubital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



lb	pound	P.E.	physical exam
LLQ	left lower quadrant	PE	pulmonary embolism
LMP	last menstrual period	PEA	pulseless electrical activity
LSB	long spine board	per	by way of
LOC	loss of consciousness	PERRL	pupils equal round and react to light
lpm	liters per minute		
LR	Lactated Ringer's	PM	between 12 noon & 12 midnight
lt or ①	left	po	per os (by mouth)
LUQ	left upper quadrant	POLST	Physician Orders for Life Sustaining Treatment
MAE	moves all extremities		
MCA	motorcycle accident	pr	per rectal
MCAEMS(S)	McLean County Area EMS (System)	PSVT	paroxysmal supraventricular tachycardia
mcg	microgram		
mEq	milliequivalent	pt.	patient
mg	milligrams	PTCA	percutaneous thrombolytic coronary angioplasty
M.I.	myocardial infarction		
min	minute	PVC	premature ventricular contraction
ml	milliliter	PVD	peripheral vascular disease
mmHg	millimeters of mercury	Q or q	every
MVC	motor vehicle collision	RR	respiratory rate
NC	nasal cannula	ROM	range of motion
NIDDM	non-insulin dependent diabetes mellitus	ROSC	return of spontaneous circulation
		rt or ②	right
NKA	no known allergies	RUQ	right upper quadrant
NG	nasogastric	SBP	systolic blood pressure
NRB	nonrebreather mask	SL	sublingual
NS	normal saline (0.9% saline)	SMO	standing medical order
NSR	normal sinus rhythm	SMR	spinal motion restriction
NTG	nitroglycerin	SpO2	saturation of peripheral oxygen (pulse oximetry)
N/V/D	nausea/ vomiting/ diarrhea		
∅	no, none	SQ	subcutaneous
O <sub>2</sub>	oxygen	SVT	supraventricular tachycardia
O.D.	right eye	T	temperature
OD	overdose	TBSA	total body surface area
OG	Orogastric	TKO	to keep open
O.S.	left eye	TXA	Tranexamic Acid
O.U.	both eyes	VF	ventricular fibrillation
P	pulse	VT	ventricular tachycardia
para	children (number of live births)	X	times
PAT	paroxysmal atrial tachycardia	y.o.	year old
PCS	pediatric coma score		



## 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.



## 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. UNDERLINED information shall be relayed on all patients.

- 1) MERCI Identifier, highest level of care available on the unit (BLS, ILS, ALS)
- 2) Age, sex, family physician, patient weight.
- 3) Present complaint:
  - a) Chief complaint/mechanism of injury/nature of illness.
  - b) History of present illness or injury.
- 4) Physical exam/vital signs (repeated every 5 - 15 min.):
  - a) Loss of consciousness/mental status
  - b) Head to toe exam results
  - c) Blood pressure
  - d) Pulse
  - e) Respirations/lung sounds
  - f) Skin condition
  - g) Pupils
  - h) Other findings
- 5) History, including:
  - a) Symptoms
  - b) Allergies
  - c) Medications
  - d) Pertinent past medical history
  - e) Last meal (if pertinent to condition)
  - f) Events leading to this incident
- 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, 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 en route, 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.

### INTRASOSEOUS 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.

### ENDOTRACHEAL INTUBATION

- No more than 2 attempts per advanced provider or 3 attempts total per patient shall be made.
- An attempt is defined as the laryngoscope blade inserted into the oral cavity unless a foreign obstruction was encountered.
- 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.



## 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 position of comfort.
9. Ensure EMS transport has been activated.
10. Obtain patient history (including DNR/POLST status).
11. Reassess patient every 5 minutes.



## Cardiac Care

### CHEST PAIN

#### FR/EMR

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

#### NOTES:

- DO NOT give ASA to a patient with a history of ASA allergy. Consult Medical Control before administering if patient has a history of ulcer disease or asthma.
- ASA shall not be administered if appropriate dose was given immediately prior to arrival. If ASA was administered immediately prior to arrival, but total dose was under 324mg, administer additional ASA to ensure cumulative dose of 324 mg.



## Cardiac Care

### CARDIOPULMONARY ARREST

#### FR/EMR

1. Initiate CPR if not already in progress. Follow AHA guidelines.
2. Utilize BVM for ventilatory support.
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. Insert system approved blind insertion airway device (BIAD). Once in place, ventilate with BVM with 15 l supplemental oxygen at a rate of 8-10 breaths per minute.
6. Ensure transport EMS has been activated. Request advanced intercept early.
7. Prepare patient for rapid transport.
8. If core body temperature is known to be less than 30°C (86°F), limit defibrillations to 3.
9. Initiate *Induced Hypothermia* protocol.

#### NOTES:

- Interruptions in chest compressions shall be minimized.
- Intercepting units shall board the BLS unit with all advanced equipment, including cardiac monitor.
- 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).
- When appropriate, institute *Cardiac Resuscitation vs. Cease Efforts and Coroner Notification* policy.



## Cardiac Care

### CARDIOPULMONARY ARREST – VENTRICULAR FIBRILLATION/TACHYCARDIA

#### FR/EMR

1. *Cardiopulmonary Arrest Protocol.*

#### NOTES:

- Providers should follow appropriate protocol based on rhythm.



## Cardiac Care

### **CARDIOPULMONARY ARREST – PULSELESS ELECTRICAL ACTIVITY**

#### **FR/EMR**

1. *Cardiopulmonary Arrest Protocol.*

#### **NOTES:**

- Consider contacting medical control early in cases of traumatic PEA.



## Cardiac Care

### CARDIOPULMONARY ARREST – ASYSTOLE

#### FR/EMR

1. *Cardiopulmonary Arrest* Protocol.

#### NOTES:

- Do not transport patients in asystole.



## Cardiac Care

### CARDIOGENIC SHOCK

#### FR/EMR

1. Routine Cardiac Care.





## Cardiac Care

### **VENTRICULAR ECTOPY (SYMPTOMATIC) (More than 6/min, couplets, triplets)**

#### **FR/EMR**

1. Routine Cardiac Care.

#### **NOTES:**

- Hypoxia is the leading cause of ventricular ectopy. Be sure to maintain adequate oxygenation for patient.



## Cardiac Care

### WIDE COMPLEX TACHYCARDIA - STABLE

#### FR/EMR

1. Routine Cardiac Care.

#### NOTES:

- STABLE: Patient is Conscious, alert, and oriented per their normal mentation AND hemodynamically stable



## Cardiac Care

### WIDE COMPLEX TACHYCARDIA - UNSTABLE

#### FR/EMR

1. Routine Cardiac Care.

#### NOTES:

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



## Cardiac Care

### NARROW COMPLEX TACHYCARDIA – STABLE (HR>150)

#### FR/EMR

1. Routine Cardiac Care.

#### NOTES:

- STABLE: Patient is Conscious, alert, and oriented per their normal mentation AND hemodynamically stable



## Cardiac Care

### NARROW COMPLEX TACHYCARDIA – UNSTABLE (HR>150)

#### FR/EMR

1. Routine Cardiac Care.

#### NOTES:

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



## Cardiac Care

### BRADYCARDIA – STABLE (HR<60)

#### FR/EMR

1. Routine Cardiac Care.

#### 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**

1. Routine Cardiac Care.

#### **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.



## Cardiac Care

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

#### FR/EMR

1. Routine Cardiac Care.

#### NOTES:

- If patient remains hypotensive, refer to the *Cardiogenic Shock Protocol*.
- “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.





## Medical Care

### ROUTINE MEDICAL 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 restrictive clothing.
8. Place patient in position of comfort. Treat patient in a calm, confident manner to prevent fear, panic, or other complications.
9. Ensure EMS transport has been activated.
10. Obtain patient history (including DNR/POLST status).
11. Reassess patient every 5 minutes.



## Medical Care

### ACUTE PULMONARY EDEMA

#### FR/EMR

1. Routine Medical Care.

#### NOTES:

- Continuously monitor respiratory adequacy. If patient condition continues to deteriorate, manually assisted ventilations with BVM may be needed.



## Medical Care

### **HYPERTENSIVE CRISIS (Systolic BP > 200 mmHg OR Diastolic BP > 120)**

#### **FR/EMR**

1. Routine Medical Care.

#### **NOTES:**

- Consider underlying causes and treat appropriately (CHF, CVA, OD, eclampsia, etc.)
- Symptomatic hypertension may include: chest pain, respiratory distress, syncope, headache, or mental status changes.
- All symptomatic patients with hypertension should be transported with head elevated.



## **Medical Care**

### **ASTHMA/COPD**

#### **FR/EMR**

1. Routine Medical Care.
2. Assist patient with prescribed inhaler/nebulizer. Give 2-4 puffs every 2-5 minutes as needed.



## Medical Care

### ANAPHYLAXIS

#### FR/EMR

1. Routine Medical Care.
2. Assist patient with prescribed **EPINEPHRINE** auto-injector (Epi-Pen).

#### NOTES:

- 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.



## Medical Care

### UNCONSCIOUSNESS/ALTERED LEVEL OF CONSCIOUSNESS/SYNCOPE

#### FR/EMR

1. Routine Medical Care.
2. Conduct FAST screen if neurologic cause suspected.
3. Check blood glucose level.
4. If narcotic overdose is suspected AND respiratory depression/failure is present, administer **NALOXONE** 2 mg IN (1/2 each nare).

#### 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.



## 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.

#### NOTES:

- Providers should also reference *Altered Level of Consciousness Protocol*.





## Medical Care

### STROKE/CVA

#### 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.

#### 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.
- Leave initial FAST stroke worksheet at receiving facility.
- Patients shall be transported to a stroke center. See *Patient Destination* policy.



## Medical Care

### SEIZURES

#### FR/EMR

1. Routine Medical Care.

#### 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.



## Medical Care

### SUSPECTED POISONING - ORGANOPHOSPHATE

#### FR/EMR

1. Routine Medical Care.

#### 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 narcotic overdose is suspected AND respiratory depression/failure is present, administer **NALOXONE** 2 mg IN (1/2 each nare).

#### NOTES:

- Common tricyclic drugs include: Amitriptyline (Elavil), Imipramin oxide (Imiprex), Lofepamine (Lomont), Nortriptyline (Pamelor).
- Poison Control: 1-800-222-1222



## Medical Care

### SEPSIS

#### Indications:

Any patient, over the age of 18, with suggestion of infection or being treated for infection (i.e. cough, shortness of breath, diarrhea, abdominal pain, central line infection, wound, cellulitis, recent procedure, immunocompromise)

AND at least two following of the following (new to patient):

- Heart rate > 90 beats per minute
- Respiratory rate > 22 breaths per minute or SpO<sub>2</sub> < 90% on room air
- Hyperthermia (>100.4°F or 38°C) or hypothermia (<96.8°F or 36°C)
- SBP ≤ 90 mmHg
- Altered mental status or decreased LOC

#### Contraindications:

- Any patient under the age of 18.

#### Protocol: FR

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

#### NOTES:

- Sepsis is a life threatening condition. Providers must appreciate the critical nature of this condition.
- End tidal CO<sub>2</sub> readings <25 mmHg are often encountered in severely septic patients, although this criteria should not be used to rule in or rule out the possibility of sepsis. Only the criteria listed in this procedure shall be used.
- Acetaminophen is contraindicated in patients with severe hepatic impairment or severe active liver disease as well as for patients with known hypersensitivity to Acetaminophen or to any of the excipients in the formulation.
- No PO medications should be administered to any patient that is at high risk of aspiration or presents with nausea/vomiting.



## **Medical Care**

### **ENVIRONMENTAL – NEAR DROWNING**

#### **FR/EMR**

1. Routine Medical Care.



## **Medical Care**

### **ENVIRONMENTAL – RADIATION EXPOSURE**

#### **FR/EMR**

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



## Medical Care

### ENVIRONMENTAL – HYPOTHERMIA

#### FR/EMR

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).





## **Medical Care**

### **ENVIRONMENTAL – FROSTBITE**

#### **FR/EMR**

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.



## 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. If patient is hypotensive, place in Trendelenberg position.
5. Do not massage cramping muscle.
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.



## 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.

#### 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.



## Trauma Care

### CRITICAL TRAUMA SITUATIONS – “LOAD & GO”

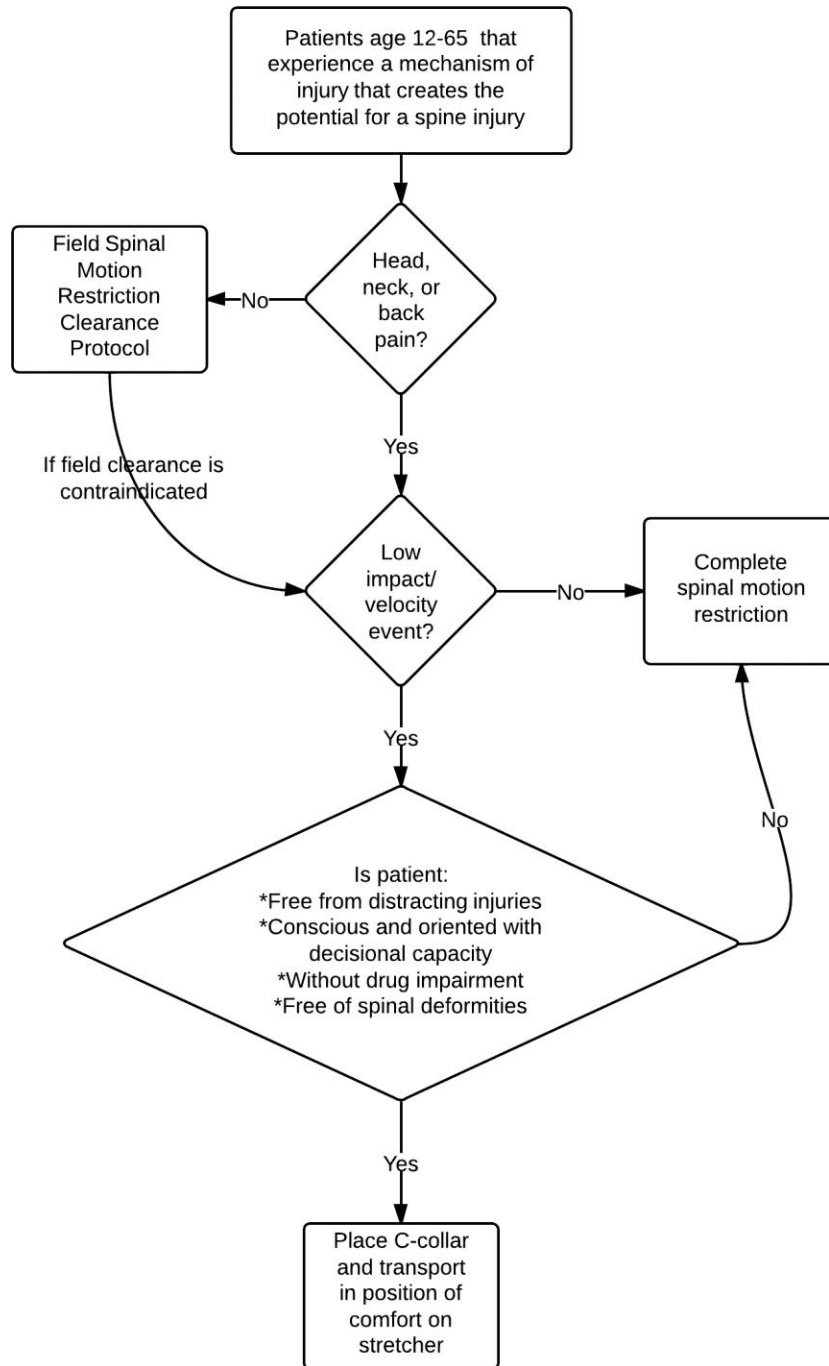
#### FR/EMR

1. Routine Trauma Care.



### Trauma Care

#### SMR DECISION TREE







## Trauma Care

### TRAUMATIC CARDIOPULMONARY ARREST

#### FR/EMR

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





## Trauma Care

### HEAD INJURY

#### FR/EMR

1. Routine Trauma Care.



## Trauma Care

### SPINAL INJURY

#### FR/EMR

1. Routine Trauma Care.



## Trauma Care

### THERMAL/ELECTRICAL BURNS

#### FR/EMR

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 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.



## 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

#### 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

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.



## Trauma Care

### HEMORRHAGIC SHOCK

#### FR/EMR

1. Routine Trauma Care.



## 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.

#### NOTES:

- Rescue of victims is paramount in suspension situations.



## **General Protocols**

### **PAIN CONTROL**

#### **FR/EMR**

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





## **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).

#### **NOTES:**

- Keep suction ready.



## General Protocols

### EXCITED DELIRIUM

#### FR/EMR

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



## General Protocols

### DRUG ASSISTED INTUBATION

#### FR/EMR

1. N/A



## General Protocols

### FIELD SPINAL MOTION RESTRICTION PROTOCOL

#### Indications:

Any patient that experiences a mechanism of injury that creates the potential for a spine injury.

#### Contraindications:

Any patient less than 12 years old or any patient 65 years old or greater, patients with chronic neck or back pain, any patient exhibiting signs of shock.

#### Protocol:

All patients will be assessed by the following criteria. Only those patients who meet ALL requirements as NO or NORMAL may be cleared.

1. Does the patient have a GCS less than 15?
2. Does the patient complain of neck or back pain?
3. Is there tenderness, swelling or deformity noted when the complete spine is palpated?
4. Is there a distracting injury or distracting pain?
5. Are there signs/symptoms of alcohol or drug abuse present?

Spinal motion restriction (SMR) may be withheld only if the answer to all of the five preceding questions is NO. If the answer to any of the preceding questions is yes the patient should be placed in full SMR. If the patient meets the criteria to withhold SMR, EMS providers may still elect to provide SMR.

Examples of distracting injuries: long bone fractures, rib fractures, pelvic fractures, abdominal pain, large contusion, avulsion to the face or scalp, partial thickness burns greater than 10% TBSA or full thickness burns, any significantly painful injury.

Examples of signs/symptoms of alcohol or drug abuse: GCS less than 15, slurred speech, dilated pupils, flushed skin, unsteady gait, irregular behavior, presence of paraphernalia.



## General Protocols

### INDUCED HYPOTHERMIA

#### FR/EMR

1. *Cardiopulmonary Arrest* Protocol.
2. Insert and confirm placement of blind insertion airway device.
3. Ventilate the patient with BVM and 100% oxygen.
4. Confirm return of spontaneous pulse.
5. Confirm history (non-traumatic – drowning and hanging are permissible)
6. Confirm patient age is 18 years or greater.
7. Perform neurological exam.
8. Expose patient, apply ice packs around head, to the groin, and axilla areas.

#### NOTES:

- ROSC is defined as the return of a palpable pulse of greater than 30 seconds
- Induced hypothermia should only be initiated after ROSC has been achieved and the patient has no meaningful response to verbal commands
- Temperature after the resuscitation must be greater than 33 C rectally.
- If no blind insertion airway or intubation is in place, cooling may only be initiated by Medical Control order
- Protect the patient's modesty; undergarments may remain in place during cooling efforts
- Do not delay transport to cool the patient
- Frequently monitor the airway and temperature status
- Patients may develop metabolic alkalosis with cooling; **DO NOT HYPERVENTILATE**



## OB/GYN

### PRE-ECLAMPSIA, ECLAMPSIA, TOXEMIA

#### FR/EMR

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.

#### NOTES:

- Definition: Coma and convulsive seizures or SBP greater than 140, diastolic greater than 90, occurring between the 20<sup>th</sup> week of pregnancy and the end of the first week postpartum.



## OB/GYN

### IMPENDING DELIVERY

#### FR/EMR

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

#### 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/eclapsia/toxemia



## OB/GYN

### CHILDBIRTH: NORMAL DELIVERY

#### FR/EMR

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.





## **OB/GYN**

### **SEVERE VAGINAL HEMORRHAGE (Postpartum or Miscarriage)**

#### **FR/EMR**

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.



## **OB/GYN**

### **ABNORMAL DELIVERIES – PROLAPSED CORD**

#### **FR/EMR**

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



## **OB/GYN**

### **ABNORMAL DELIVERIES – BREECH PRESENTATION**

#### **FR/EMR**

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**

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.



## **ABUSE**

### **SUSPECTED DOMESTIC ABUSE/NEGLECT**

#### **FR/EMR**

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.

#### **NOTES:**

- 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**

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.



## Medication Index

	<b>A</b>		<b>N</b>
<b>ASA</b> , 5, 11			<b>Naloxone</b> , 31,36
	<b>E</b>		<b>O</b>
<b>EPINEPHRINE</b> , 29			<b>ORAL GLUCOSE</b> , 32

NOTE: Oxygen and normal saline have been omitted from Medication Index.



## Version History

The following is the update lineage to the EMS protocols manual. Editions prior to December 1, 2014 are NOT included in this history. Providers shall routinely check the system website ([www.mcleancountyems.org](http://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
Train the Trainer	N/A: Training purposes only	Various minor and grammatical/phrasing corrections
Preliminary	N/A: Training purposes only	Various minor and grammatical/phrasing corrections. Protocols used for initial education of system members.
1.1	12/1/2014	Various minor and grammatical/phrasing corrections.
1.2	03/01/2015	Added <i>SEPSIS</i> protocol under the Medical Protocols section.
1.3	10/01/2016	Added IN Naloxone