Nebraska

Board of Emergency Medical Services

Approved

EMR Model Protocols

Last Revised May 2024

For the most recent updates CLICK HERE

The Table of Contents has a Revised Date to show when that Protocol or Section was revised.

Table of Contents

PROTOCOL DESIGN AND DIRECTIONS FOR USE (Revised 5/7/2024)

These individual Protocols are based on the National Scope of Practice for Emergency Medical Responders (EMR).

Each Emergency Care Provider (ECP) is expected to know his/her own scope of practice and if applicable, special Physician Medical Director (PMD) authorized skills.

EMR

- EMR without additional PMD approval stop at this section
- Other levels consider these items and continue

EMR skills with PMD approval and competency training

- EMR with additional PMD approval stop at this section
  - Reminder the PMD may NOT have authorized every Optional Skill/Treatment
- Other levels consider these items and continue

Use of Multiple Protocols May Be Required:

- The ECP may have to use several protocols to meet the needs of the patient.

PURPOSE (Revised 12/7/2012)

The purpose of these protocols is to assure safe and effective intervention during the out-of-hospital phase of patient care. In consideration of the unique resources, needs, population, and geography of EMS in Nebraska, individual medical directors may choose to enhance or omit portions of these protocols in accordance with current medical practices and standards. Medical directors are responsible to ensure the EMS personnel using these protocols have the training and skills required and perform quality assurance activities to assure these protocols are used appropriately.

SCOPE OF PROTOCOLS (Revised 12/7/2012)

These protocols are applicable to Nebraska Licensed Emergency Medical Services functioning with Emergency Medical Responders (EMR). Protocols not included in this document must be approved by their physician medical director and submitted to the Department.

PHYSICIAN MEDICAL DIRECTOR APPROVAL AND AUTHORITY (Revised 10/1/2020)

For these protocols to be valid, the service's Physician Medical Director (PMD) must approve them. Certain skills as listed in these protocols require additional authorization. The ***Physician Medical Director Authorization*** document lists the approved protocols and other PMD approved documents that must be signed by the PMD.

The Physician Medical Director retains authority over the medical aspects of the EMS Service and the ECP.

AUTHORIZATION TO FUNCTION AS AN EMERGENCY CARE PROVIDER (Revised 10/1/2020)

To function as an ECP under these protocols an individual must:

- Have a valid Nebraska EMR license; and
- Have the Authorization of the Physician Medical Director (PMD)

The PMD must authorize skills for the individual ECP *and* the Service.

RESPONSIBILITY OF THE LICENSED EMERGENCY MEDICAL SERVICE (Revised 12/7/2012)

The EMS service is responsible for having certain PMD approved documents and review these documents with its employees/members. The EMS service may not knowingly allow for unauthorized practice and/or authorize practices and procedures that require PMD approval. The licensed EMS services is expected to comply with Nebraska Rules and Regulations.

RESPONSIBILITY OF THE LICENSED EMERGENCY CARE PROVIDERS AND OTHER LICENSED PROFESSIONALS (Revised 10/1/2020)

The individual licensed ECP or other licensed healthcare professionals fulfilling the role of the ECP are responsible to maintain knowledge of these protocols and to function within them. Furthermore, the ECP may not exceed his/her Practice and Procedures as authorized by the EMS Services PMD and the Nebraska Emergency Medical Services Practice Act.

PROFESSIONALISM AND ETHICS (Revised 10/1/2020)

Regardless of whether the ECP is paid or volunteer his/her time, the practice of emergency care is a profession. Our patients have a reasonable expectation to have these services provided in an ethical and professional manner. The guiding document of professionalism and ethics for the ECP of ALL LEVELS is the EMT Code of Ethics as approved by the National Association of EMTs.

MANDATORY REPORTING REQUIREMENTS (Revised 10/1/2020)

The ECP and the Service are expected to comply with mandatory reporting of misdemeanor and felony convictions, limits on practice, disciplinary actions, and unprofessional conduct. The full text of the Mandatory Reporting requirement is located in Title 172 NAC 5 – MANDATORY REPORTING BY HEALTH CARE PROFESSIONALS, FACILITIES, PEER REVIEW ORGANIZATIONS, PROFESSIONAL ASSOCIATIONS, and INSURERS. A Summary Table of Mandatory Reporting requirements and the full text of title 172 NAC 5 are available at the Nebraska Health and Human Services website.

CONFIDENTIALITY (Revised 10/1/2020)

The patient has a reasonable expectation that his/her patient information will be kept in confidence. The ECP is expected to comply with the EMS Practice Act and the Rules and Regulations.

Excerpt from the Nebraska Emergency Medical Services Practice Act

38-1225. Patient data; confidentiality; immunity. *(1) No patient data received or recorded by an emergency medical service or an out-of-hospital emergency care provider shall be divulged, made public, or released by an emergency medical service or an out-of-hospital emergency care provider, except that patient data may be released for purposes of treatment, payment, and other health care operations as defined and permitted under the federal Health Insurance Portability and Accountability Act of 1996, as such act existed on January 1, 2007, or as otherwise permitted by law. Such data shall be provided to the department for public health purposes pursuant to rules and regulations of the department. For purposes of this section, patient data means any data received or recorded as part of the records maintenance requirements of the Emergency Medical Services Practice Act*

PROTOCOL ACCESS (Revised 12/7/2012)

Each EMS service will make available a copy of these protocols at the service's base of operations **AND** a copy in the response unit.

The protocols will be either hard paper copy or an electronic/digital copy.

General Principles

INFECTION CONTROL (Revised 10/1/2020)

Universal Precautions Standard
In many calls, the ECP will not have sufficient information about the patient and therefore is to follow a universal precautions standard with the use of body substance isolation (BSI) for all patient contact in which exposure to blood and/or body fluids may occur. For situations where an airborne pathogen (disease) is suspected, the ECP should employ a N95 mask or higher form of respiratory protection.

Infection Control PPE
Personal Protective Equipment (PPE) items used to provide protection for the ECP should be readily available.

Hand Washing
After patient contact, even if BSI was used, each emergency care provider should thoroughly wash his/her hands. In the absence of soap and water, an alcohol-based gel or foam hand sanitizer should be used.

Service Infection Control Plan
The services PMD Approved Infection Control/Sanitation Plan should be consulted for further guidance on infection control.

SAFETY (Revised 10/1/2020)

Vehicle Operations
The Emergency Vehicle Operator is to operate the emergency vehicle with *Due Regard for The Safety of Others* in all driving situations. Not every call for EMS nor does every patient require the use of lights and/or sirens during response and/or transport.

Safety and Scene Size Up
Every call should be assessed for potential safety hazards beginning from the moment the call is received and continually assessed until the end of the call.

Each responder should take actions that minimize his/her risks of injury. Utilization of personal protective equipment such as reflective vests, specialized rescue apparel, flotation devices and other equipment should be considered based on the incident type and the potential hazards.

When confronted with a hazardous and/or violent scene, the ECP should avoid entry into the scene and call for the appropriate resources.

INCIDENT COMMAND AND PRIMARY CARE PROVIDER (Revised 12/7/2012)

For each incident, the service is expected to activate an Incident Command System (ICS) that is compliant with the National Incident Management System (NIMS).

For each patient encountered, a Primary Care Provider will be indicated on the Patient Care Report (PCR)

COMMUNICATIONS AND DOCUMENTATION (Revised 10/1/2020)

To allow for regional or local variations, the provider may follow a locally established two-way electronic communications policy/procedure. General guidelines for radio communication include:

- Avoid the use of 10 codes or other codes
- Contact the dispatch agency and advise
  - The call was received
  - When at the incident location
  - When at the Hospital (if applicable)
  - The response unit is in route
  - When leaving the incident
  - When Unit/responders back in service
- Contact the destination hospital and advise
  - Patient's age and gender
  - History of the situation – Mechanism of Injury
  - Treatments provided
  - ETA to destination Hospital
  - Patient's chief complaint
  - Level of consciousness and vital signs
  - Special Teams Requests (i.e. Trauma Team)

General Guidelines for Face to Face Patient Report

To allow for regional or local variations and needs, the provider may follow locally adopted face-to-face report policy/procedure. In absence of a local policy or procedure when transferring care at the destination facility; or to a transport service; or when tiering with another service, the ECP should give a face-to-face verbal report to a representative of the receiving entity. This verbal report should include the:

Patient's name	Complaint(s)	Mechanism of injury/nature of illness
Pertinent medical history	Medications	Allergies
Events leading the injury/illness	Treatments	Treatment given by EMS
Results of treatments		

At the conclusion of the report, check for understanding and ask if there are any questions.

Documentation

A Patient Care Report (PCR) will be completed for each patient transport, refusal, cancelled call, or standby. The PCR will include at least the minimum data required by Rules and Regulations. Additionally, the PCR will be completed by the method, within the time frame, and submitted to the Department of Health and Human Services as defined in the Rules and Regulations.

CONSENT (Revised 12/7/2012)

General Consent Guidelines

Whenever possible the ECP should obtain at least verbal consent prior to treatment. The very nature of emergency medical care means that, at times, verbal consent will not be possible, and an implied consent concept must be employed. Services are to have a consent form available, and providers are to obtain a signature from the patient or a patient representative whenever possible. If a signature cannot be obtained, documentation should reflect the reason why.

Minor Defined

An adult is an individual 19 years old or older or who is or has been married (Neb. Rev. Stat. §43-2101). Consent or refusal cannot be signed by a minor.

- A minor is an individual age 18 or under UNLESS the individual is married.
- A minor can be emancipated and given the rights of an adult.

Suicide Attempts or Threats to Harm Self

When the ECP is presented with a patient who has attempted or threatened suicide, the provider should contact law enforcement and request emergency protective custody.

GUIDELINES FOR REFUSAL (Revised 10/1/2020)

Any competent adult may refuse care and/or transportation. Also, the patient may allow transport but refuse a specific medical procedure:

- To determine if the patient is competent the ECP will:
  - Determine the patient is oriented to person, place, events, and approximate time
  - Determine the patient has not, in relation to the current situation, attempted or threatened to commit suicide or harm him/herself
  - A legal guardian or health care power of attorney may consent to or refuse care and/or transportation for an adult or minor patient.

The ECP must document refusal of care and/or transport. This documentation is to include:

- All patient data elements to complete the patient care report
- Patient assessment including vital signs and any care the patient allowed
- A signature from the patient or the patient's representative acknowledging the refusal of care and/or transport

If the patient refuses to allow vital signs, treatment or provide information, the patient care report should have a statement explaining what elements the patient refused.

The ECP should reassure the patient that EMS can be called back should the patient wish to seek medical attention at a later time.

DO NOT RESUSCITATE (DNR) (Revised 12/7/2012)

A DNR is a written order by a physician that a patient should not be resuscitated or have CPR performed. A DNR must be signed by a physician, dated, and have the patient's name.

When confronted with a patient with a DNR and the patient has no pulse, agonal breathing or no respirations, the ECP may honor the DNR and not initiate resuscitation efforts.

When confronted with a patient with a DNR and the patient is nearing death, the ECP may provide comfort care including supplemental oxygen and pain management. The patient may be transported at the request of the patient, patient's family, patient's physician or medical control.

When confronted with a patient with a DNR and the patient is NOT nearing death the ECP may provide the care as directed within these protocols.

ADVANCED DIRECTIVES (Revised 10/1/2020)

Advanced directives are documents that state the patient's wishes should certain events occur. These documents may be in the form of a "Living Will". Some of these documents maybe of such a length and complexity that the ECP may not be able to determine the wishes of the patient for the situation encountered. In these cases, resuscitation efforts should be initiated unless the sign(s) of obvious death are present. If possible, the document should be transported with the patient to the hospital.

FAMILY OBJECTIONS TO DNR – ADVANCED DIRECTIVES (Revised 10/1/2020)

In a situation where the family objects to a DNR order or an Advanced Directive, the ECP should initiate resuscitation efforts unless sign(s) of obvious death are present.

ECP ETHICAL OBJECTION (Revised 10/1/2020)

Any ECP with an ethical objection to following a DNR or Advanced Directive must inform his/her service prior to responding to these types of situations. These individuals should avoid response to these types of calls whenever possible.

MEDICAL DIRECTION AND PHYSICIAN ORDERS (Revised 10/1/2020)

Medical Direction Orders

The ECP may consult with online medical direction and follow the orders given via this method. HOWEVER, the ECP may only provide treatment within the practices and procedures for their level of licensure and the service's level of licensure.

Patient Physician Orders

The ECP may consult online with the patient's physician and follow the orders given via this method. HOWEVER, the ECP may only provide treatment within the practices and procedures for their level of licensure and the service's level of licensure. The patient care record will state the name of the physician and the orders given.

Physician on Scene

The ECP may follow the orders of a physician on scene. HOWEVER, the ECP may only provide treatment within the practices and procedures for their level of licensure and the service's level of licensure. The patient care record will state the name of the physician and the orders given.

CONCEALED HANDGUN (Revised 10/1/2020)

The Nebraska Concealed Handgun Permit Act allows certain individuals to obtain a permit to carry a concealed handgun. The rules and regulations necessary to carry out the act are listed in Title 272 Chapter 21.

The ECP's best action when confronted with a situation in which a patient has a concealed weapon is to have law enforcement take possession of the weapon. When this is not possible, the weapon should be secured until it can be turned over to law enforcement.

REPORTING CRIMES AND CRIME SCENES (Revised 10/1/2020)

Mandatory Reporting Certain Suspected Crimes

The ECP is directed under the law to report or cause a report to be intranasal to law enforcement the following;

Abuse and neglect of a child	Refer to Neb. Rev. Stat. § 28-711
Abuse and neglect of a vulnerable adult	Refer to Neb. Rev. Stat. § 28-378
Injuries as a result of a crime	Refer to Neb. Rev. Stat. § 28-902

Crime Scenes

The ECP will likely care for victim(s) of a crime and therefore should attempt to preserve evidence as best as possible while providing for patient care. Good documentation of the scene and patient's injuries will also be of benefit in these cases.

COMPLETION OF THE CALL AND PREPARATION FOR NEXT CALL (Revised 10/1/2020)

After the call, the ECP should clean and disinfect equipment and the ambulance. The ambulance should be restocked and prepared for the next call.

Providers should consider the call and, if needed, call for a Critical Incident Stress Management (CISM) debriefing by calling 402-479-4921.

Adult Routine Assessment and Care

ROUTINE ASSESSMENT AND CARE (Revised 5/7/2024)

This Protocol applies to every patient contact and is the base from which other treatment protocols build upon.

Scene Size Up

- Assess scene safety – use standard/universal precautions – determine # of patients – consider additional resources
- Determine nature of illness/mechanism of trauma

Primary Assessment, Identify and Treat Immediate Life Threats

- If mechanism of trauma indicates – consider manually stabilizing c-spine
- Form a general impression
- Determine level of consciousness – utilize AVPU scale
- If adult patient presents in cardiac arrest, start compressions unless obvious signs of death are present
- Assess airway
  - Foreign body airway obstruction – clear obstruction
  - Decreased level of consciousness (LOC) and patient cannot maintain own airway (no gag reflex)
    - Trauma suspected – utilize jaw thrust method to open airway
    - Medical patients – utilize head tilt, chin left method to open airway
      - Consider oral airway
  - Decreased LOC and patient has decreased ability to maintain own airway (gag reflex intact)
    - Monitor closely – consider one of simple airway maneuvers above
  - Suction oral airway as needed
  - Patient can maintain own airway and no suction needed – no immediate intervention
- Assess breathing
  - Absent or agonal – begin ventilations with BVM attached to oxygen (alternate may use mouth to mask)
  - Assess quality of breathing and lung sounds
    - Respiratory rate 10 and under OR 30 and above
      - Consider assisted ventilations with BVM attached to oxygen
    - Signs/Symptoms of severe respiratory distress – impending respiratory arrest
      - Consider oxygen by oxygen delivery mask
      - Consider assisted ventilations with BVM attached to oxygen
    - Signs/symptoms of moderate respiratory difficulty
      - Consider oxygen by oxygen delivery mask
    - Signs/symptoms of mild respiratory difficulty
      - Consider oxygen by nasal cannula
    - No signs/symptoms of respiratory difficulty
      - Consider oxygen appropriate to nature of illness/ mechanism of trauma
      - Utilize oxygen saturation and adjust oxygen device and flow to maintain saturation above 94%
- Assess circulation
  - Absent pulse – begin CPR – follow **Cardiac Arrest Protocols**
  - Assess for bleeding
    - Control external bleeding with direct pressure, pressure bandage, pressure points and/or tourniquet
    - Control external bleeding with the use of hemostatic agents or junctional tourniquets with physician medical director approval and direction.
  - Assess quality of pulse
    - Weak – rapid pulse – consider treating for shock
    - Weak slow pulse
      - Assess airway and breathing again and treat as appropriate
      - Assess for possible cause
    - Irregular pulse
      - Assess for possible cause
    - Strength, rate, and rhythm normal – no immediate intervention
- Assess disability – quick neuro exam
  - Obtain Glasgow Coma Scale
  - Utilize a non-invasive stroke scale to rule out possible stroke
  - Check peripheral circulation, movement, and sensory

Obtain Patient History

- Obtain a chief complaint
- Obtain SAMPLE history
- Consider use of OPQRST pneumonic
- Obtain pertinent negatives

Vital Signs

- **EMR**
  - Pulse
  - Respiratory rate
  - Manual blood pressure and automatic blood pressure with appropriate training and PMD approval
  - Temperature
  - Pulse oximetry with appropriate training and PMD approval

Secondary Assessment

- Prepare for patient transport
- Expose patient as needed
- Medical – **systematic assessment of major body systems**
- Trauma – **systematic assessment for injuries**

Reassessment

- Repeat assessment of patient based on condition
- Monitor vital signs
- Identify changes in patient condition – adjust treatment as needed

SCALES AND SCORES (Revised 5/27/2014)

Glasgow Coma Scale

Criteria	Adult/Child	Score	Infant
Eye Opening	Spontaneous	4	Spontaneous
	To Verbal	3	To Verbal
	To Pain	2	To Pain
	No Response	1	No Response
Best Verbal Response	Oriented	5	Coos, Babbles
	Disoriented/Confused	4	Irritable Cry
	Inappropriate Words	3	Cries Only to Pain
	Incomprehensible Moans/groans	2	Moans to Pain
	No Response	1	No Response
Best Motor Response	Obeys Commands	6	Spontaneous
	Localizes Pain	5	Withdraws from Touch
	Withdraws from Pain	4	Withdraws from Pain
	Abnormal Flexion	3	Abnormal Flexion
	Abnormal Extension	2	Abnormal Extension
	No Response	1	No Response

Adult Medical Protocols

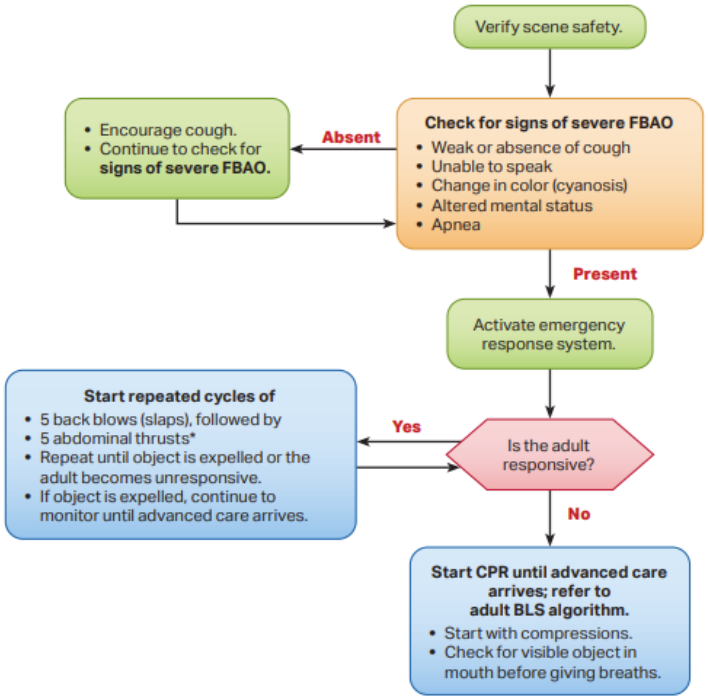
AIRWAY – CHOKING – FOREIGN BODY AIRWAY OBSTRUCTION (Revised 10/1/2020)

EMR

Complete Airway Obstruction

Conscious Goes Unconscious

Adult Foreign-Body Airway Obstruction



*For patients in the late stages of pregnancy, or when the rescuer is unable to encircle the patient's abdomen, 5 chest thrusts should be used instead.

If airway does not clear request ALS intercept

Partial Airway Obstruction

Monitor patient – allow patient to cough, be alert for complete obstruction

AIRWAY – POST AIRWAY OBSTRUCTION (Revised 10/1/2020)

EMR

- Routine assessment and care
- Consider oral airway
- Consider assisted ventilations for inadequate breathing
- Consider oxygen and adjust delivery device and LPM flow to achieve 94% or better O2 saturation
- Suction as needed
- Positioning
  - Decreased mental status position on side
  - Alert patient, allow patient to assume position of comfort
- Be alert for loss of airway due to swelling
- Consider ALS

ABDOMINAL PAIN (Revised 7/16/2021)

EMR

- Routine assessment and care
- Consider oxygen and adjust delivery device and LPM flow to achieve 94% or better O2 saturation
- Consider OPQRST pneumonic for assessment of pain
- Additional assessment concerns
  - Localize pain to abdominal quadrant if possible
  - Obtain bowel and bladder habits
  - Female patients – obtain menstrual cycle history
  - Female patients – consider ectopic pregnancy
- Allow patient to assume a position of comfort
- Consider ALS

ALLERGIC REACTION – ANAPHYLAXIS (Revised 7/16/2021)

EMR

- Routine assessment and care
- Consider oral airway
- Consider assisted ventilations
- Consider oxygen and adjust delivery device and LPM flow to achieve 94% or better O2 saturation
- Assess severity of reaction

Mild Reaction	Moderate Reaction	Severe Reaction
Itching and/or hives No respiratory symptoms	Itching and/or hives Mild respiratory symptoms No airway compromise	Itching and/or hives Respiratory distress Airway compromise Signs/symptoms of shock

- Consider ALS

- Consider assisting patient with his/her prescribed epinephrine auto injector
  - IM epinephrine if approved by PMD
  - Nasal epinephrine if approved by PMD
  - May repeat in 5 minutes if symptoms do not improve

BEHAVIORAL EMERGENCIES (Revised 10/1/2020)

EMR

- Routine assessment and care
- Consider oxygen and adjust delivery device and LPM flow to achieve 94% or better O2 saturation
- Assess for medical or traumatic causes for behavioral changes
- Attempt non-confrontational verbal reassurance to calm patient – give clear direction
- Combative patients
  - Contact law enforcement
  - Consider physically restraining patient ****See restraint protocol**
  - Consider use of spit hood
- Consider **agitated delirium**: patients are truly out of control and have a life-threatening medical emergency they will have some or all of the following: *paranoia, disorientation, hyper aggression, hallucination, tachycardia, increased strength, hyperthermia*
- Consider ALS

CARDIAC ARREST – DISCONTINUING BYSTANDER CPR AND WITHHOLDING CPR (Revised 10/1/2020)

The EMR may be presented with patients in which bystander CPR has been started or the patient presents with certain signs/symptoms of obvious death or a valid DNR.

Situations where bystander CPR has been initiated OR EMS arrives and no CPR is initiated:

Un-Safe Scene

- **If the scene will place the ECP "at risk of serious injury or mortal peril"[1] CPR may be discontinued or withheld**

- Confirm the patient has:
  - No pulse
  - No respirations or attempts at respirations

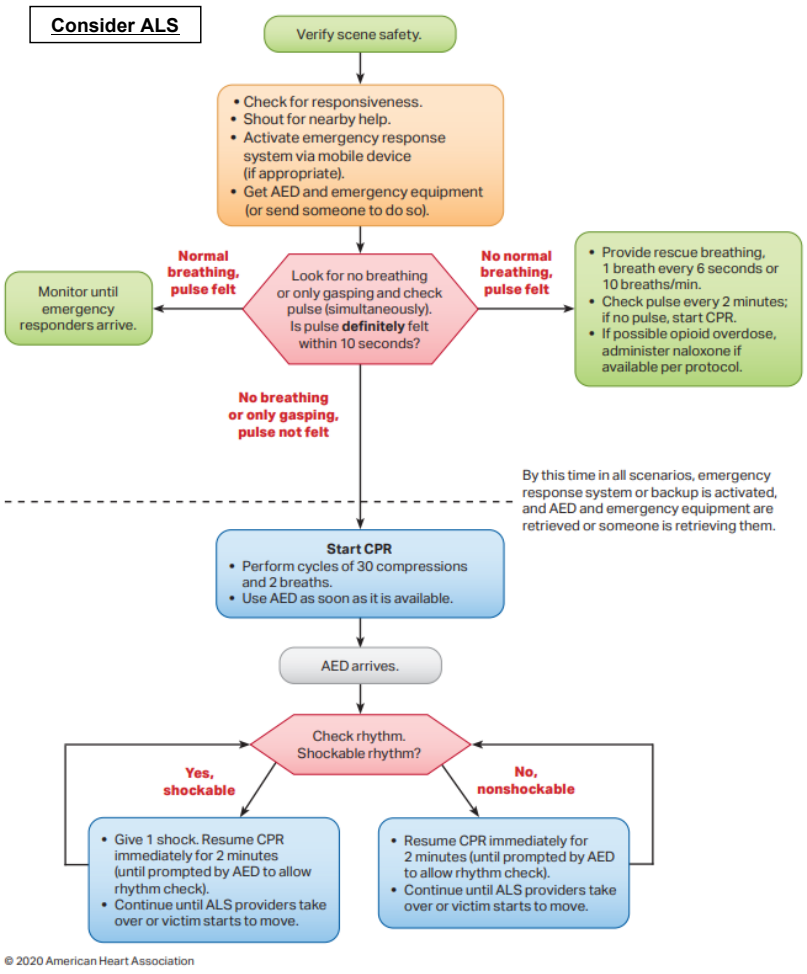
- May Stop CPR or Not Initiate CPR IF the Patient Presents with **At Least One** of the Following;
  - Rigor mortis
  - Decapitation
  - Decomposition
  - Dependent lividity
  - Traumatic cardiopulmonary arrest with injuries incompatible with life; Examples:
    - Massive blood loss
    - Displacement of brain tissue
    - Blunt Head/Chest Trauma
  - Valid DNR form
  - Physician authorization

- The following will be included in the Patient Care Report;
  - CPR was or was not being performed prior to EMS arrival; OR
  - If CPR was being performed and the time it was discontinued
  - The patient had no respirations and no pulse
  - The additional criteria (from above) are used to discontinue or withhold CPR

[1] Part 3: Ethics: 2010 AHA CPR and EEC Guild lines **Withholding and Withdrawing CPR(Termination of Resuscitative Efforts) Related to Out-of Hospital Cardiac Arrest**

EMR

Adult Basic Life Support Algorithm for Healthcare Providers



CARDIAC ARREST – SPECIAL SITUATIONS (Revised 10/1/2020)

- **Follow cardiac arrest algorithm with these special considerations**

CARDIAC ARREST OF THE OBVIOUS PREGNANT PATIENT

EMR

- Place patient on backboard and tilt patient on backboard approximately 30 degrees to the patient's left or manual displacement according to AHA guidelines

CARDIAC ARREST IN HYPOTHERMIA–DROWNING

EMR

- Remove wet clothing and passively warm patient

CARDIAC ARREST IN TRAUMA

- If resuscitation attempted follow appropriate **Cardiac Arrest Protocol**

CARDIAC ARREST – RETURN OF SPONTANEOUS CIRCULATION (Revised 10/1/2020)

EMR

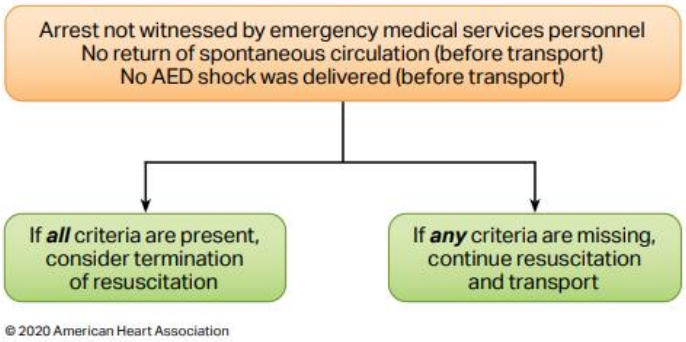
- Routine assessment and care
- Keep AED attached to patient
- Assist ventilations
- Administer oxygen and adjust delivery device and LPM flow to achieve 94% or better O2 saturation
- If gag reflex returns removal of oral airway
- Suction as needed
- Consider ALS

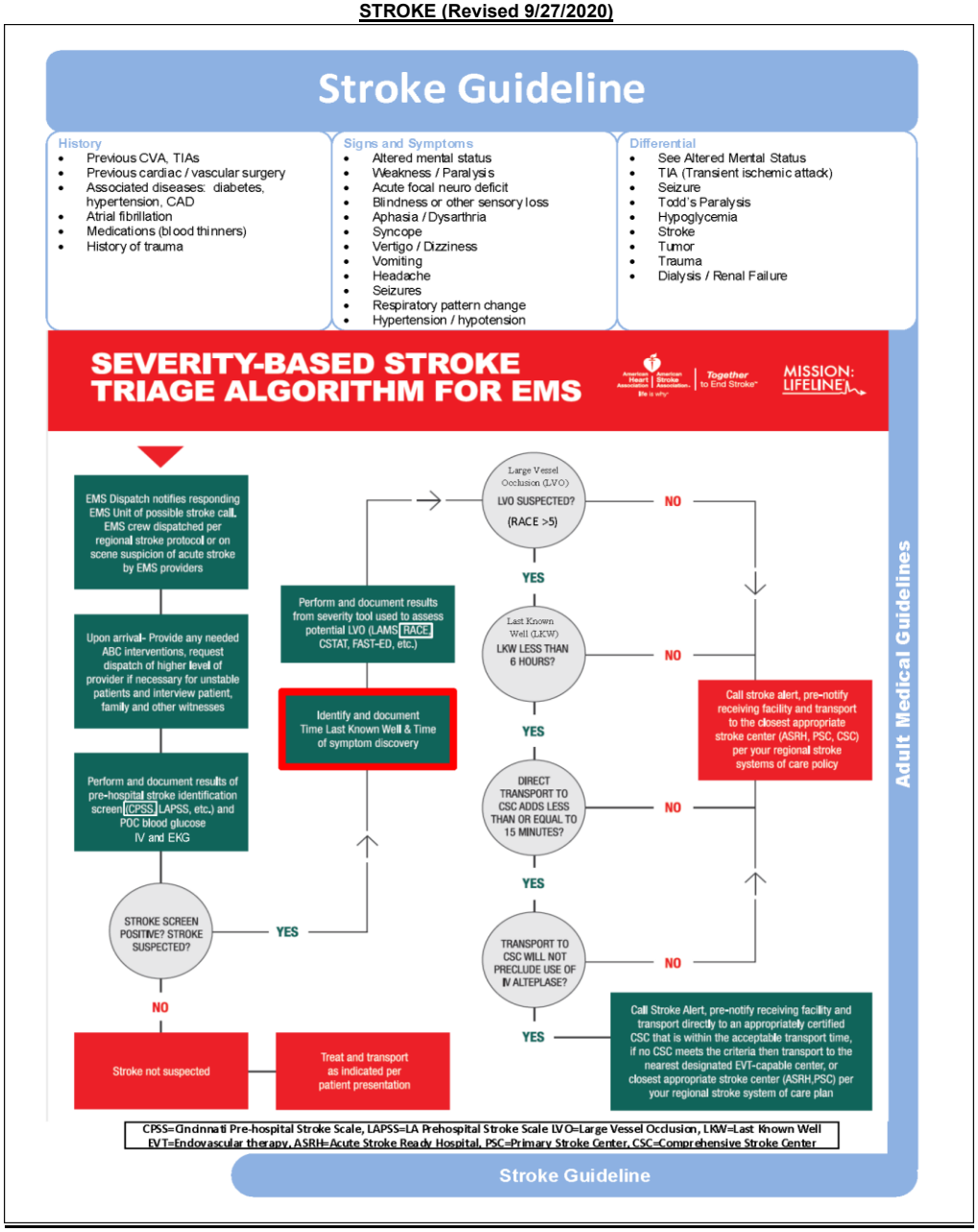
CARDIAC ARREST – TERMINATION OF RESUSCITATION (Revised 8/27/2021)

EMR

- Routine assessment
- Consider termination resuscitation in accordance with the following algorithm
- Consider consultation with medical control or PMD

BLS Termination of Resuscitation




Stroke Guideline
History
Previous CVA, TIAs
Previous cardiac / vascular surgery
Associated diseases: diabetes, hypertension, CAD
Atrial fibrillation
Medications (blood thinners)
History of trauma
Signs and Symptoms
Altered mental status
Weakness / Paralysis
Acute focal neuro deficit
Blindness or other sensory loss
Aphasia / Dysarthria
Syncope
Vertigo / Dizziness
Vomiting
Headache
Seizures
Respiratory pattern change
Hypertension / hypotension
Differential
See Altered Mental Status
TIA (Transient ischemic attack)
Seizure
Todd's Paralysis
Hypoglycemia
Stroke
Tumor
Trauma
Dialysis / Renal Failure
SEVERITY-BASED STROKE TRIAGE ALGORITHM FOR EMS
Together to End Stroke
MISSION: LIFELINE
EMS Dispatch notifies responding EMS Unit of possible stroke call. EMS crew dispatched per regional stroke protocol or on scene suspicion of acute stroke by EMS providers
Upon arrival- Provide any needed ABC interventions, request dispatch of higher level of provider if necessary for unstable patients and interview patient, family and other witnesses
Perform and document results of pre-hospital stroke identification screen (CPSS, LAPSS, etc.) and POC blood glucose IV and EKG
STROKE SCREEN POSITIVE? STROKE SUSPECTED?
YES
NO
Stroke not suspected
Treat and transport as indicated per patient presentation
Perform and document results from severity tool used to assess potential LVO (LAMS, RACE, CSTAT, FAST-ED, etc.)
Identify and document Time Last Known Well & Time of symptom discovery
Large Vessel Occlusion (LVO) LVO SUSPECTED? (RACE >5)
NO
YES
Last Known Well (LKW) LKW LESS THAN 6 HOURS?
NO
YES
DIRECT TRANSPORT TO CSC ADDS LESS THAN OR EQUAL TO 15 MINUTES?
NO
YES
TRANSPORT TO CSC WILL NOT PRECLUDE USE OF IV ALTEPLASE?
NO
YES
Call stroke alert, pre-notify receiving facility and transport to the closest appropriate stroke center (ASRH, PSC, CSC) per your regional stroke systems of care policy
Call Stroke Alert, pre-notify receiving facility and transport directly to an appropriately certified CSC that is within the acceptable transport time, if no CSC meets the criteria then transport to the nearest designated EVT-capable center, or closest appropriate stroke center (ASRH,PSC) per your regional stroke system of care plan
Adult Medical Guidelines
CPSS=Cincinnati Pre-hospital Stroke Scale, LAPSS=LA Prehospital Stroke Scale LVO=Large Vessel Occlusion, LKW=Last Known Well
EVT=Endovascular therapy, ASRH=Acute Stroke Ready Hospital, PSC=Primary Stroke Center, CSC=Comprehensive Stroke Center
Stroke Guideline

CVA / Suspected Stroke

Adult Medical Protocols

Cincinnati Pre-hospital Stroke Scale

1. FACIAL DROOP: *Have patient show teeth or smile.*

Normal: both sides of the face move equally

Abnormal: one side of face does not move as well as the other side

2. ARM DRIFT: *Patient closes eyes & holds both arms out for 10 sec.*

Normal: both arms move the same or both arms do not move at all

Abnormal: one arm does not move or drifts down compared to the other

3. ABNORMAL SPEECH: *Have the patient say "you can't teach an old dog new tricks."*

Normal: patient uses correct words with no slurring. **Abnormal**: patient slurs words, uses the wrong words, or is unable to speak

INTERPRETATION: If any 1 of these 3 signs is abnormal, the probability of a stroke is 72%.

EMS RACE Stroke Scale – Rapid Arterial oCculsion Evaluation Scale, used to predict large cerebral arterial occlusions.*

ITEM	INSTRUCTION		RACE Score
FACIAL PALSY	Ask the patient to show their teeth (smile)	ABSENT (symmetrical movement) MILD (slightly asymmetrical) MODERATE TO SEVERE (completely asymmetrical)	0 1 2
ARM MOTOR FUNCTION	Extending the arm of the patient 90 degrees (if sitting) or 45 degrees (if supine)	NORMAL TO MILD (limb upheld more than 10 seconds) MODERATE (limb upheld less than 10 seconds) SEVERE (patient unable to raise arm against gravity)	0 1 2
LEG MOTOR FUNCTION	Extending the leg of the patient 30 degrees (if supine)	NORMAL TO MILD (limb upheld more than 5 seconds) MODERATE (limb upheld less than 5 seconds) SEVERE (patient unable to raise the leg against gravity)	0 1 2
HEAD AND GAZE DEVIATION	Observe eyes and cephalic deviation to one side	ABSENT (eye movements to both sides were possible and no cephalic deviation was observed) PRESENT (eyes and cephalic deviation to one side was observed)	0 1
APHASIA If right hemiparesis	Ask the patient to follow two verbal orders: - i.e., "close your eyes" - i.e., "make a fist"	NORMAL (performs both tasks correctly) MODERATE (performs one task correctly) SEVERE (performs neither task)	0 1 2
AGNOSIA If left hemiparesis	Asking: - "Who's arm is this?" While showing him/her the paretic arm - "Can you move your arm?"	NORMAL (no asomatognosia nor anosognosia) MODERATE (asomatognosia or anosognosia) SEVERE (both of them)	0 1 2
Presence of Gaze Deviation or Global Aphasia (mute, doesn't follow commands) = high likelihood of a large vessel occlusion.		RACE SCALE TOTAL: Any score above a "0" is a "Stroke Alert"	

LOS ANGELES PREHOSPITAL STROKE SCREEN (LAPSS)

Patient Name: _____
Rater Name: _____
Date: _____

Screening Criteria	Yes	No
4. Age over 45 years	☐	☐
5. No prior history of seizure disorder	☐	☐
6. New onset of neurologic symptoms in last 24 hours	☐	☐
7. Patient was ambulatory at baseline (prior to event)	☐	☐
8. Blood glucose between 60 and 400	☐	☐

9. Exam: *look for obvious asymmetry*

	Normal	Right	Left
Facial smile / grimace:	☐	☐ Droop	☐ Droop
Grip:	☐	☐ Weak Grip ☐ No Grip	☐ Weak Grip ☐ No Grip
Arm weakness:	☐	☐ Drifts Down ☐ Falls Rapidly	☐ Drifts Down ☐ Falls Rapidly

Based on exam, patient has only unilateral (and not bilateral) weakness: Yes ☐ No ☐

10. If Yes (or unknown) to all items above LAPSS screening criteria met: Yes ☐ No ☐

11. If LAPSS criteria for stroke met, call receiving hospital with "CODE STROKE", if not then return to the appropriate treatment protocol. (Note: the patient may still be experiencing a stroke if even if LAPSS criteria are not met.)

Pearls

- **Recommended Exam: Mental Status, HEENT, Heart, Lungs, Abdomen, Extremities, Neuro**
- **Acute Stroke care is evolving rapidly. Time of onset / last seen normal parameters may be changed at any time depending on the capabilities and resources of the Stroke Receiving Hospital.**
- **Time of Onset or Last Seen Normal: One of the most important items the pre-hospital provider can obtain, on which all treatment decisions are based. Be very precise in gathering data to establish the time of onset and report as an actual time (i.e. 13:47 NOT "about 45 minutes ago.") Without this information patient may not be able to receive thrombolytics at facility. For patients with "Woke up and noticed stroke," Time starts when patient went to sleep or was last awake and was last known normal (NOT the time they woke up).**
- **Scene times should be generally limited to ≤ 15 minutes and the patient should be transported to capable stroke receiving facility. In-field notification of receiving facility should be performed and transport times should be minimized.**
- The differential listed on the Altered Mental Status Protocol should also be considered.
- Be alert for airway problems (swallowing difficulty, vomiting/aspiration).
- Document the results of the pre-hospital stroke identification screen (CPSS, LAPSS, etc) in the ePCR.
- Elderly patients with UTIs may show stroke signs and symptoms, always error on the side of caution
- Consider stroke mimics: Hypoglycemia, seizure, sepsis, migraine, intoxication

STEMI GUIDELINES (Revised 3/9/2022)

Obtain Diagnostic ECG with initial vital signs – GOAL – First medical contact (FMC) to ECG ≤ 10 min, scene time: ≤ 15 minutes **To provide early identification and pre-hospital arrival notification for suspected myocardial infarction or STEMI.*

1. Chest pain, pressure, tightness or persistent discomfort above the waist in patients ≥ 35 years of age
2. "Heartburn" or epigastric pain
3. Complaints of "heart racing" (HR >150 or irregular and >120) or "heart too slow" (HR < 50 and symptomatic)
4. A syncopal episode, severe weakness, or unexplained fatigue
5. New onset stroke symptoms (< 24 hours old)
6. Difficulty breathing or shortness of breath (with no obvious non-cardiac cause)
7. ROSC (return of spontaneous circulation) post cardiac arrest
8. Recent cocaine, stimulant and/or other illicit drug use (patients of any age)
9. *If initial ECG is not diagnostic but suspicion is high for MI and symptoms persist, obtain serial ECG's at 5-10 minute intervals*

EMR

- Transmit diagnostic ECG to facility for interpretation or present to ALS for interpretation
- Alert hospital staff or qualified ALS personnel if ECG monitor interpretive statement infers "acute myocardial infarction" and patient has signs & symptoms suspect of acute myocardial infarction including chest discomfort and symptoms listed above
- Administer O2 based on assessment findings and adjust delivery device and LPM flow to achieve 94% or better O2 saturation
- Obtain systolic/diastolic blood pressure (BP) in both arms
- Administer chewable aspirin 324 mg by mouth

STEMI BEST PRACTICE GUIDELINES (Revised 10/1/2020)

Documentation Reminders

- Provide copy of eNARSIS report with verbal report to registered nurse or physician
- If STEMI/AMI alert is requested of the receiving hospital, document the time
- Provide a printed or electronic copy of pre-hospital Diagnostic ECG with report to registered nurse or physician

Patient Care Goals

- Provide early identification of patients and early notification of the hospital for suspected AMI or STEMI
- Utilize an assessment tool that may reduce the time from onset of symptoms to receiving definitive cardiac interventions at the receiving hospital
- Prepare patient for immediate transport with indicated medications administered en route to hospital. Attempt to limit the scene time to the shortest time possible

American Heart Association Mission: Lifeline EMS Best Practice Goals

- All patients with non-traumatic chest discomfort, ≥ 35 years of age, treated and transported by EMS receive a pre-hospital electrocardiogram
- All STEMI patients transported directly to a STEMI receiving center, receive a first (pre-hospital) medical contact to PCI time ≤ 90 minutes directly or ≤ 120 minutes for interfacility hospital transfers
- All lytic eligible STEMI patients treated and transported to a referring hospital for fibrinolytic therapy receive a door to needle time ≤ 30 minutes

American Heart Association Mission: Lifeline EMS Reporting Measures

- Time from symptom onset to EMS dispatch
- Time from dispatch to EMS vehicle arrival at receiving or referring hospital door
- Number of suspected AMI/STEMI patients treated and transported by EMS who receive a Diagnostic ECG
- Number of STEMI patients treated and transported to a referring hospital for potential reperfusion by fibrinolysis therapy who receive a fibrinolytic checklist screening en route to identify possible contraindications
- Number of STEMI patients who received a pre-hospital ECG, recognized STEMI, and called for a STEMI alert at the receiving or referring hospital prior to arrival

*Based on Mission: Lifeline and the American Heart Association

CHEST PAIN – DISCOMFORT (Revised 5/7/2024)

- Routine assessment and care
- Consider pain management **See Pain Management Protocol

EMR

- Consider OPQRST pneumonic for assessment of pain
- Administer oxygen and adjust delivery device and LPM flow to achieve 94% or better O2 saturation
  - Minor distress 2-6 LPM nasal cannula
  - Moderate to severe distress 10 – 15 LPM oxygen delivery mask
- Consider 4 each 81 mg (total 324mg) aspirin chewed and swallowed
- Consider obtaining Diagnostic ECG and transmit/handoff for interpretation
- Consider ALS

CONGESTIVE HEART FAILURE (Revised 5/7/2024)

- Routine assessment and care

EMR

- Administer oxygen and adjust delivery device and LPM flow to achieve 94% or better O2 saturation
  - Minor distress 2-6 LPM nasal cannula
  - Moderate to severe distress 10 – 15 LPM oxygen delivery mask
- Consider assisted ventilations
- Consider ALS

DECREASED LEVEL OF CONSCIOUSNESS – DECREASED MENTAL STATUS (Revised 10/1/2020)

- Routine assessment and care
- Consider 4mg Naloxone
    - INTRANASAL for suspected or known narcotic overdose

EMR

- Consider oral airway and assisted ventilations
- Administer oxygen and adjust delivery device and LPM flow to achieve 94% or better O2 saturation
- Consider Diagnostic ECG acquisition and transmission
- Utilize a non-invasive stroke scale
- Obtain onset time
- Assess for medical or traumatic cause and utilize additional protocols as needed
- Consider ALS

EPIGLOTTITIS (Revised 5/7/2024)

- Routine assessment and care

EMR

- Administer oxygen by blow by or oxygen delivery mask humidified if possible and adjust delivery device and LPM flow to achieve 94% or better O2 saturation
- Calm patient
- Allow patient to assume a position where he/she can maintain own airway
- If patient loses airway attempt BVM ventilations
- Consider ALS

HYPOGLYCEMIA – INSULIN SHOCK (Revised 7/2023)

- Routine assessment and care

EMR

- Assess for stroke
- Assess for signs and symptoms of hypoglycemia
- If no trauma, position patient to protect airway
- Consider oxygen and adjust delivery device and LPM flow to achieve 94% or better O2 saturation
- IF PATIENT CAN FOLLOW SIMPLE COMMANDS AND PROTECT OWN AIRWAY
  - Consider having patient drink juice, non-diet pop or milk
  - Consider 15 grams oral glucose gel or tablets
- Skill with PMD approval and competency training
  - Obtain blood glucose reading
- Consider ALS

HYPERGLYCEMIA – DIABETIC COMA (Revised 10/1/2020)

- Routine assessment and care

EMR

- Consider oxygen and adjust delivery device and LPM flow to achieve 94% or better O2 saturation
- Assess for stroke
- Assess for signs and symptoms of hyperglycemia
- If no trauma, position patient to protect airway
- Skill with PMD approval and competency training
  - Obtain blood glucose reading
- Consider ALS

GI HEMORRHAGE (Revised 10/1/2020)

- Routine assessment and care

EMR

- Consider oxygen and adjust delivery device and LPM flow to achieve 94% or better O2 saturation
- Consider OPQRST pneumonic for assessment of pain complaints
- Assess-question patient on nausea/vomiting and bowel/stools
- Monitor for shock
- Be prepared for suctioning
- Consider ALS

Commented [WS1]: New protocol; need board approval.

Commented [WS2]: New protocol; need board approval.

Commented [WS3]: New protocol; need board approval

HEADACHE (Revised 7/16/2021)

- Routine assessment and care

Consider applying cold pack

EMR

- Consider oxygen and adjust delivery device and LPM flow to achieve 94% or better O2 saturation
- Consider OPQRST pneumonic for assessment of pain
- Assess cause of headache (stroke, trauma, etc.)
- Monitor for shock
- Be prepared for suctioning
- Consider ALS

NAUSEA – VOMITING – DIARRHEA (Revised 10/1/2020)

- Routine assessment and care

EMR

- Consider oxygen and adjust delivery device and LPM flow to achieve 94% or better O2 saturation
- Consider OPQRST pneumonic for assessment of pain
- Assess for cause
- Assess for dehydration
- Be prepared for suctioning
- Consider ALS

NON-TRAUMATIC GENERALIZED PAIN (Revised 7/16/2021)

- Routine assessment and care
  Consider pain management **See Pain Management Protocol

EMR

- Consider oxygen and adjust delivery device and LPM flow to achieve 94% or better O2 saturation
- Consider OPQRST pneumonic for assessment of pain complaints
- Consider ALS

NON-TRAUMATIC NOSE BLEED (Revised 5/7/2024)

- Routine assessment and care

EMR

- Consider oxygen by oxygen delivery mask or blow by – humidified if possible and adjust delivery device and LPM flow to achieve 94% or better O2 saturation
- Position patient
  - Sitting upright
  - Head in neutral position
  - Avoid head tilt position
  - If upright not possible consider lateral position
- Pinch nares together
- Direction to patient
  - Spit blood/clot out
  - Try not to swallow blood
  - Do not rub – blow nose or sniff
- Suction as needed
- Consider ALS

RESPIRATORY ARREST (Revised 10/1/2020)

- Routine assessment and care

EMR

- Open airway
  - Trauma suspected use jaw thrust method
  - Non-traumatic use head tilt-chin lift method
- Consider oral airway
- Begin ventilations at 10-12 times a minute with bag-valve-mask or mouth to mask device attached to oxygen
- Monitor oxygen saturation and adjust ventilation/minute to achieve 94% or better O2 saturation
- Suction as needed
- Verify pulse present
- Consider cause use additional protocols if needed
- Consider ALS

RESPIRATORY DISTRESS – ASTHMA –EXACERBATION OF COPD - SPONTANEOUS PNEUMOTHORAX - RESPIRATORY INFECTIONS (Revised 07/16/2021)

- Routine assessment and care

EMR

- Administer oxygen and adjust delivery device and LPM flow to achieve 94% or better O2 saturation
- Consider assisted ventilations
- Suction as needed
- Consider ALS

RENAL DIALYSIS PATIENT (Revised 10/1/2020)

- Routine assessment and care

EMR

- Consider oxygen and adjust delivery device and LPM flow to achieve 94% or better O2 saturation
- Do not use same limb for BP measurement as active dialysis shunt
- Hemorrhage from shunt puncture site
  - Use direct pressure and pressure bandage
  - As last resort, use a tourniquet
- Consider ALS

SEIZURE AND POSTICTAL PERIOD (Revised 10/1/2020)

- Routine assessment and care

EMR

- Active seizure
  - Administer oxygen (blow by acceptable during seizure) and adjust delivery device and LPM flow to achieve 94% or better O2 saturation
  - Protect patient – pads around patient
  - Do not restrain patient
  - Do not insert anything orally
- Postictal period
  - Consider oxygen and adjust delivery device and LPM flow to achieve 94% or better O2 saturation
  - Consider assisted ventilations and oral airway for persistent decreased mental status
  - Suction as needed
- Assess for trauma and stroke
- Consider ALS

TOXINS – AUTO INJECTOR ANTIDOTE KITS (Revised 9/22/2022)

NERVE AGENT – ORGANOPHOSPHATE EXPOSURE

- Routine assessment and care

EMR

- May administer auto injector antidote kits to a fellow responder or patients in mass numbers when higher level emergency care providers are overwhelmed and as directed.

TOXINS – INHALED (Revised 10/1/2020)

- Routine assessment and care

EMR

- Assess for trauma
- Administer high flow oxygen and adjust delivery device and LPM flow to achieve 94% or better O2 saturation
- Consider assisted ventilations
- Consider oral airway
- Suction as needed
- Consider ALS

TOXINS –-STIMULANTS –-COCAINE –-METHAMPHETAMINE- ECSTASY – OVERDOSE (Revised 10/1/2020)

- Routine assessment and care

EMR

- Consider oxygen and adjust delivery device and LPM flow to achieve 94% or better O2 saturation
- Consider assisted ventilations
- Consider oral airway
- Obtain name of medication/drug
  - **See Next Page for Additional Information**
- Obtain temperature
- If temperature is over 102°F and infection not suspected, consider passive cooling
- Consider diagnostic ECG acquisition and transmission
- Consider ALS

SPECIAL INSTRUCTIONS FOR SPECIFIC TOXINS (Revised 9/22/2022)

IF LEVEL NOT LISTED USE THE TOXIN – OVERDOSE PROTOCOL ABOVE

NARCOTICS – OPIATES – BARBITUATES

- Routine assessment and care

EMR

- Consider 4 mg Naloxone INTRANASAL for suspected or known narcotic overdose
    - If symptoms of narcotic overdose re-occur after initial response to Naloxone, re-administer dose
- Consider diagnostic ECG acquisition and transmission

CALCIUM CHANNEL BLOCKER

ALL LEVELS

- Routine assessment and care

TOXINS – POISONS (Revised 10/1/2020)

- Routine assessment and care
- Call for special resources to remove patient from hot zone if needed

EMR

- Consider oxygen
- Decontaminate patient if needed – call for special HAZMAT if needed
    - Dry chemicals brush then flush from skin
    - Wet chemical flush with water
- Obtain name of toxin and route(s) of exposure
- Unless directed by medical control or poison control do not induce/encourage vomiting
- Consider ALS

SPECIAL INSTUCTIONS FOR SPECFIC POISONS (Revised 12/7/2012)

ORGANOPHOSPHATES

EMR

- See above

SHOCK (Revised 10/1/2020)

- Routine assessment and care

EMR

- Administer oxygen and adjust delivery device and LPM flow to achieve 94% or better O2 saturation
- Consider assisted ventilations
- Consider oral airway
- Assess for trauma
    - Control external hemorrhage
    - Manually stabilize c-spine and extremity deformities
- Assess for dehydration
- Assess for potential of allergic reaction ****go to Allergic reaction anaphylaxis protocol**
- Position supine unless respiratory status does not allow for this
- Conserve body heat
- Consider ALS

Adult Trauma Protocols

TRAUMA SYSTEM (Revised 12/7/2012)

The goal of the TRAUMA SYSTEM is to get the injured patient to the most appropriate facility by the most appropriate means in a timely manner. EMS should consult with Medical Control/Local Hospital if any patient meets trauma system guidelines so the patient is transported to the most appropriate facility. In some cases, the patient may bypass a local hospital or stop only to be stabilized by the local hospital then transferred on to a regional trauma center.

The Nebraska Trauma System is divided into geographic regions each with its own regional advisory board. Each region and specifically designate trauma centers may have additional trauma system activation guidelines. This protocol presents a general overview for the ECP.

GENERAL TRAUMA SYSTEM (TRAUMA TEAM) GUIDELINES:

1. Considerations for trauma system activation
    - Vitals and LOC
        - Adult heart rate >130
        - Adult systolic BP <85
        - Adult respiratory rate <10 or >29
        - ****see Pediatric vital signs and ventilation guidelines**
        - Altered mental status
    - Anatomy of injury
        - Penetrating trauma to head, neck, torso, groin
        - Combinations of burns >20% or face/airway burns
        - Amputation at or above wrist/ankle
        - Spinal cord injury
        - Flail chest
        - Two or more proximal long bone injuries
    - Biomechanics of injury
        - Ejected from vehicle
        - Auto vs. Pedestrian/bicycle >5 mph
        - Motorcycle/ ATV crash
        - Pedestrian thrown or run over
    - Other risk factors
        - Provider impression of unstable patient
        - Extreme(s)
        - Age (<2 >60)
        - Environment (heat/cold)
        - Health/illness (pregnancy, COPD, CHF, Diabetes)
        - Exposure to hazardous materials
    - High energy transfer
        - Rollover
        - Fall >10 feet
        - Extrications > 20 minutes
    - Burn injury
        - 2nd and 3rd degree burns of face, hands, feet, perineum
        - Significant electrical burns
        - Inhalation injury

2. Procedure:
    - Consult with medical control and/or local hospital
    - Request trauma system (trauma team) activation
    - Call for ALS intercept – if available

TRAUMA CARE HEAD – CHEST – ABDOMEN (Revised 3/9/2022)

- Adult routine assessment and care
- Assess for shock and treat
- Consider pain management **See Pain Management Protocol

<table>
<tr><th></th><th>Head/Neck/Spine</th><th>Chest</th><th>Abdomen</th></tr>
<tr><td rowspan="3">EMR</td><td colspan="3">Administer oxygen and adjust delivery device and LPM flow to achieve 94% or better O2 saturation
Consider assisted ventilations
Consider oral airway
Consider OPQRST pneumonic for assessment of pain
Suction as needed
Manually stabilize head and neck
Control external bleeding
Stabilize impaled objects in place
Assess CMS
Consider trauma team – trauma system activation</td></tr>
<tr><td colspan="3">May control external bleeding with the use of hemostatic agents or junctional tourniquets with physician medical director approval and direction.</td></tr>
<tr><td>Open trauma
*bandage or pack open wounds including with quick clotting bandaging
*consider occlusive dressing for open neck wounds
Closed trauma
*consider cold pack to areas of edema</td><td>Open chest trauma – sucking chest wound
*seal wound with occlusive dressing
Closed chest trauma
*consider stabilizing flail sections with bulky dressings</td><td>Open abdominal trauma – eviscerations
*do not attempt to replace contents
*place contents on top of abdomen
*cover with thick moist dressing
Closed abdominal trauma
*attempt to localize pain to an abdominal region/quadrant</td></tr>
<tr><td colspan="4">special consideration for extremity injuries in multi-systems trauma
Consider utilizing a full body stabilization device and splint injured extremities to the device and/or patient to allow for rapid scene time and then splint extremities Stabilization of suspected pelvic and femur fractures is a high priority</td></tr>
</table>

AMPUTATIONS – EXTREMITY – SOFT TISSUE TRAUMA (Revised 10/1/2020)

- Adult routine assessment and care
- Assess for shock and treat
- Consider pain management **See Pain Management Protocol

	Amputations	Extremity	Soft Tissue
EMR	Administer oxygen and adjust delivery device and LPM flow to achieve 94% or better O2 saturation Consider assisted ventilations Consider oral airway Consider OPQRST pneumonic for assessment of pain Suction as needed Manually stabilize head and neck Control external bleeding Stabilize impaled objects in place Assess CMS Consider trauma team activation		
	May control external bleeding with the use of junctional tourniquets with Physician Medical Director approval and direction		
	• *Wrap amputated part in dressing and keep cool • *Do not place tissue directly on ice	• *Manually stabilize painful and/or deformed extremity • *Apply cold pack to extremity	• *Return Avulsion type flaps to anatomic position if possible. • *Bandage open wounds • Consider removing impaled objects through the cheek into the mouth • *For eye injuries – cover both eyes

SPINAL STABILIZATION (Revised 1/2/2020)

- See adult assessment model
- See general management of the trauma patient appropriate to level of provider
- EMR specific assessment and care
  - Obtain GCS score
  - Consider OPQRST pneumonic
- Assess for location, type and duration of pain
- Assess circulation sensation and movement in extremities
  - Manually stabilize head/neck
  - Control external bleeding
    - Control external bleeding with direct pressure, pressure bandage, pressure points and/or tourniquet
    - May control external bleeding with the use of hemostatic agents or junctional tourniquets with physician medical director approval and direction.
  - Stabilize impaled objects
  - Reassess circulation sensation and movement distal to injury
  - For inadequate breathing ventilate patient at 10 to 12 times a minute
- Avoid hyperventilating patient unless patient has:
  - GCS of eye opening 1 – verbal 2 or less – motor 2 or less, AND;
  - Serial increases in BP, AND;
  - Serial decreases in pulse, AND;
  - Erratic respiratory pattern
- Consider ALS

- Consider spinal stabilization

Appropriate patients to be stabilized with a backboard may include those with:

- Blunt trauma and altered level of consciousness
- Spinal pain or tenderness
- Neurologic complain (e.g., numbness or motor weakness)
- Anatomic deformity of the spine
- High-energy mechanism of injury and any of the following:
    - Suspected drug or alcohol intoxication
    - Inability to communicate
    - Distracting injury

Patients for whom stabilization on a backboard is not necessary include those with all of the following:

- Normal level of consciousness (Glasgow Coma Score [GCS] 15)
- No spine tenderness or anatomic abnormality
- No neurologic findings or complaints
- No distracting injury
- No suspected drug or alcohol intoxication

Patients with penetrating trauma to the head, neck, or torso and no evidence of spinal injury should not be stabilized on a backboard.

If extrication is required from a vehicle:

- After placing a cervical collar, if indicated, children in a booster seat and adults should be allowed to self-extricate.
- For infants already strapped in a car seat with built-in harness, extricate the child while strapped in his/her car seat.

Spinal precautions can be maintained by application of a rigid cervical collar and securing the patient firmly to the EMS stretcher, and may be most appropriate for:

- Patients who are found to be ambulatory at the scene
- Patients who must be transported for a protracted time, particularly prior to inter-facility transfer
- Patients for whom a backboard is not otherwise indicated

Whether or not a backboard is used, attention to spinal precautions among at-risk patients is paramount. These include application of a cervical collar, adequate security to a stretcher, minimal movement/transfers, and maintenance of in-line stabilization during any necessary movement/transfers.

In situations when utilization of a backboard is indicated:

- Assess circulation sensation and movement distal in extremities
- Select appropriately sized cervical collar and place on patient
- Select and apply spinal stabilization device
- Reassess circulation sensation and movement distal in extremities
    - Consider extremity stabilization

BITES AND ENVENOMATION (Revised 10/1/2020)

- Routine assessment and care
- Assess for shock and treat
- Consider pain management **See Pain Management Protocol

EMR

- Consider oxygen and adjust delivery device and LPM flow to achieve 94% or better O2 saturation
- Consider OPQRST for assessment of pain
- Control any external bleeding
- Consider manual stabilization of affected extremity
- Human bites and animal bites
  - Bandage wound
- Snake bite
  - Attempt to identify breed of snake
  - Slow venous return
- Insect bites
  - Remove stinger/venom sac
- Spider bites
  - Consider cold pack
- Assess for allergic reaction go to allergic reaction – ****See Anaphylaxis Protocol**
- Consider ALS

BURNS (Revised 10/1/2020)

- Routine assessment and care
- Assess for shock and treat
- Consider pain management **See Pain Management Protocol

Burn Type and Treatment Chart

Thermal Burns	Electrical Burns	Radiation Burns	Chemical Burns
THINK SAFETY Remember scene safety and appropriate PPE			
Stop burning process	Verify the electrical source is de-energized	Patient and radiation source need to be separated	• Brush dry chemicals from skin – flush with water • Wet chemicals flush with water
Do Not Apply Any Ointments or Creams			
Do not intentionally rupture blisters	Assess for entrance and exit wounds	Decontaminate patient prior to transport	Decontaminate patient prior to transport
Cover burns/wounds with dry or non-adhering dressings			Wrap patient with dry sheet

EMR

- Administer oxygen and adjust delivery device and LPM flow to achieve 94% or better O2 saturation
- Consider assisted ventilations
- Consider oral airway
- Consider OPQRST for assessment of pain
- Consider manually stabilize head/neck
- Estimate body surface area burned and extend of burn
- Consider trauma system activation
- Consider ALS

CRUSH INJURY (Revised 10/1/2020)

- Routine assessment and care
- Assess for shock and treat
- Consider pain management **See Pain Management Protocol

EMR

- Administer oxygen and adjust delivery device and LPM flow to achieve 94% or better O2 saturation
- Manually stabilize head/neck
- Consider oral airway
- Consider assisted ventilations
- Consider OPQRST for assessment of pain
- Control external bleeding
  - Control external bleeding with direct pressure, pressure bandage, pressure points and/or tourniquet
  - May control external bleeding with the use of hemostatic agents or junctional tourniquets with physician medical director approval and direction.
- Consider trauma system activation
- Consider ALS

ENVIRONMENTAL TRAUMA – EXPOSURE TO HEAT AND COLD (Revised 10/1/2020)

- Routine assessment and care
- Assess for shock and treat
- Consider pain management **See Pain Management Protocol

EMR

- Administer oxygen and adjust delivery device and LPM flow to achieve 94% or better O2 saturation
- Manually stabilize head/neck
- Consider assisted ventilations
- Consider OPQRST for assessment of pain

- Exposure to cold – hypothermia
  - Gently move patient to warm area if no spinal injury suspected
  - Remove wet clothing
  - Frozen/ near frozen extremities
    - Expose to warm surroundings
    - Consider dry dressing to pad
  - Body wide hypothermia
    - Passively warm patients with warm packs and blankets
- Exposure to heat
  - Gently move patient to cool area if no spinal injury suspected
  - Remove excessive clothing
  - Normal mental status and perspiration intact
    - Passive cool patient with fanning and cool dressing
  - Decrease mental status and/or no perspiration
    - Aggressive cooling with wet sheet, fanning and cold packs
- Consider trauma system activation
- Consider ALS

SCUBA DIVING – DECOMPRESSION "THE BENDS" TRAUMA (Revised 10/1/2020)

- Routine assessment and care
- Assess for shock and treat
- Consider pain management **See Pain Management Protocol

EMR

- Administer high flow oxygen and adjust delivery device and LPM flow to achieve 94% or better O2 saturation
- Monitor mental status – track/document AVPU and GCS
- Consider OPQRST for assessment of pain
- Assess and monitor CMS
- Assess dive history
  - Time of dive
  - Length of time of dive
  - Depth
  - Any problems with dive
- Consider ALS

SEXUAL ASSAULT (Revised 10/1/2020)

- Routine assessment and care
- Assess for shock and treat
- Consider pain management **See Pain Management Protocol

EMR

- Consider oxygen and adjust delivery device and LPM flow to achieve 94% or better O2 saturation
- Consider OPQRST for assessment of pain
- Manage open wounds
- Stabilize impaled objects in place
- Encourage patient not to wash or shower
- Consider trauma system activation
- If possible have EMS provider of same sex as patient provide assessment and treatment
- Consider ALS

TRAUMA DURING PREGNANCY (Revised 10/1/2020)

- Routine assessment and care
- Assess for shock and treat
- Consider pain management **See Pain Management Protocol

EMR

- Consider oxygen and adjust delivery device and LPM flow to achieve 94% or better O2 saturation
- Consider assisted ventilations
- Manually stabilize head/neck
- Monitor mental status – track/document AVPU and GCS
- Consider OPQRST for assessment of pain
- Stabilize impaled objects in place
- Assess and monitor CMS
- Position patient on left side or sitting position
- Consider trauma system activation
- Consider ALS

OB/Gynecological Protocols

GYNECOLOGICAL PAIN – VAGINAL BLEEDING (Revised 7/16/2021)

- Routine assessment and care
- Consider pain management **See Pain Management Protocol

EMR

- Consider oxygen and adjust delivery device and LPM flow to achieve 94% or better O2 saturation
- Additional assessment concerns
  - Localize pain to abdominal quadrant if possible
  - Assess for trauma
  - Obtain bowel and bladder habits
  - Obtain menstrual cycle history
  - Obtain gynecological history
  - Consider ectopic pregnancy
- Allow patient to assume a position of comfort
- Consider ALS

COMPLICATIONS DURING PREGNANCY (Revised 10/1/2020)

- Routine assessment and care

EMR

- Administer oxygen and adjust delivery device and LPM flow to achieve 94% or better O2 saturation
- Obtain bowel and bladder habits
- Obtain pregnancy history
- Complications
  - Seizures (eclampsia) – protect patient for safety, protect airway, lay on left lateral recumbent – call for ALS
  - Hypertension possible (pre-eclampsia) – monitor vitals – reduce stimuli
  - Hypotension – place patient on left lateral recumbent
  - Hypoglycemia/Hyperglycemia – **See hypoglycemia or hyperglycemia protocol**
  - Miscarriage – monitor for shock – may place trauma/ABD dressing over genitals
- Allow patient to assume a position of comfort
- Consider ALS

LABOR (Revised 10/1/2020)

- Routine assessment and care

EMR

- Consider oxygen and adjust delivery device and LPM flow to achieve 94% or better O2 saturation
- Obtain pregnancy status
  - Known complications
  - Due date
  - Number previous pregnancies
  - Number of previous live births
  - Has amniotic fluid passed (water broke)
- Time contractions
- Prepare for field delivery if:
  - Contractions are regular and 2 minutes or sooner together
  - Patient has urge to push
  - Exam external genital region for bulging
- Do not perform internal vaginal exam
- Consider ALS

DELIVERY – UNCOMPLICATED (Revised 10/1/2020)

- Routine assessment and care
- For complicated deliveries (breech, limb presentation or prolapsed umbilical cord) see **Delivery Complicated Protocol**

EMR

- Consider oxygen and adjust delivery device and LPM flow to achieve 94% or better O2 saturation
- Obtain pregnancy status
  - Known complications
  - Due date
  - Number previous pregnancies
  - Number of previous live births
  - Has amniotic fluid passed (water broke)
- Time contractions
- Do not perform internal vaginal exam
- Obtain field delivery kit (OB kit)
- Uncomplicated delivery
  - Provide gentle pressure/ support as head emerges
  - Suction nose and mouth with bulb syringe as head emerges – assess for meconium staining
  - Examine for cord around neck and free if needed
  - Allow infant's head/shoulders to turn
  - Support infant throughout rest of birth
  - Suction nose and mouth
  - See neonatal care protocol for care of infant
- Reassess mother
  - Prepare for delivery of placenta
- Consider ALS

DELIVERY – COMPLICATED (Revised 10/1/2020)

- Routine assessment and care

EMR

- Consider oxygen and adjust delivery device and LPM flow to achieve 94% or better O2 saturation
- Obtain pregnancy status
  - Known complications
  - Due date
  - Number previous pregnancies
  - Number of previous live births
  - Has amniotic fluid passed (water broke)
- Time contractions
- Do not perform internal vaginal exam
- Obtain field delivery kit (OB kit)
- Consider positioning patient in head down buttocks up position
- Encourage patient to breathe through contractions
- Consider ALS

NEW BORN (NEONATAL) CARE (Revised 8/27/2021)

Initial Actions (Immediately at Birth)

- **Dry, warm, stimulate**
  - Dry thoroughly, remove wet linens
  - Maintain warmth (skin-to-skin if appropriate, blankets, hat)
  - Position airway (sniffing position)
  - Clear airway **only if obstructed** (bulb syringe mouth → nose)
- **Rapid Assessment (within first 30 sec)**
  - Is the baby **term?**
  - **Good tone?**
  - **Breathing/crying?**
    - **If YES to all:**
      - Routine care, monitor, delayed cord clamping if feasible
    - **If NO to any:**
      - Proceed to resuscitation steps below
- **Primary Assessment**
  - Evaluate:
    - **Respirations**
    - **Heart Rate (HR)**
    - **Color / oxygenation**

Resuscitation Algorithm

HR >60

- Support airway and optimize ventilation (this is usually the problem)
- Monitor

HR < 60 bpm

- **Start CPR**
  - Coordinate with PPV
  - **3:1 compression-to-ventilation ratio**

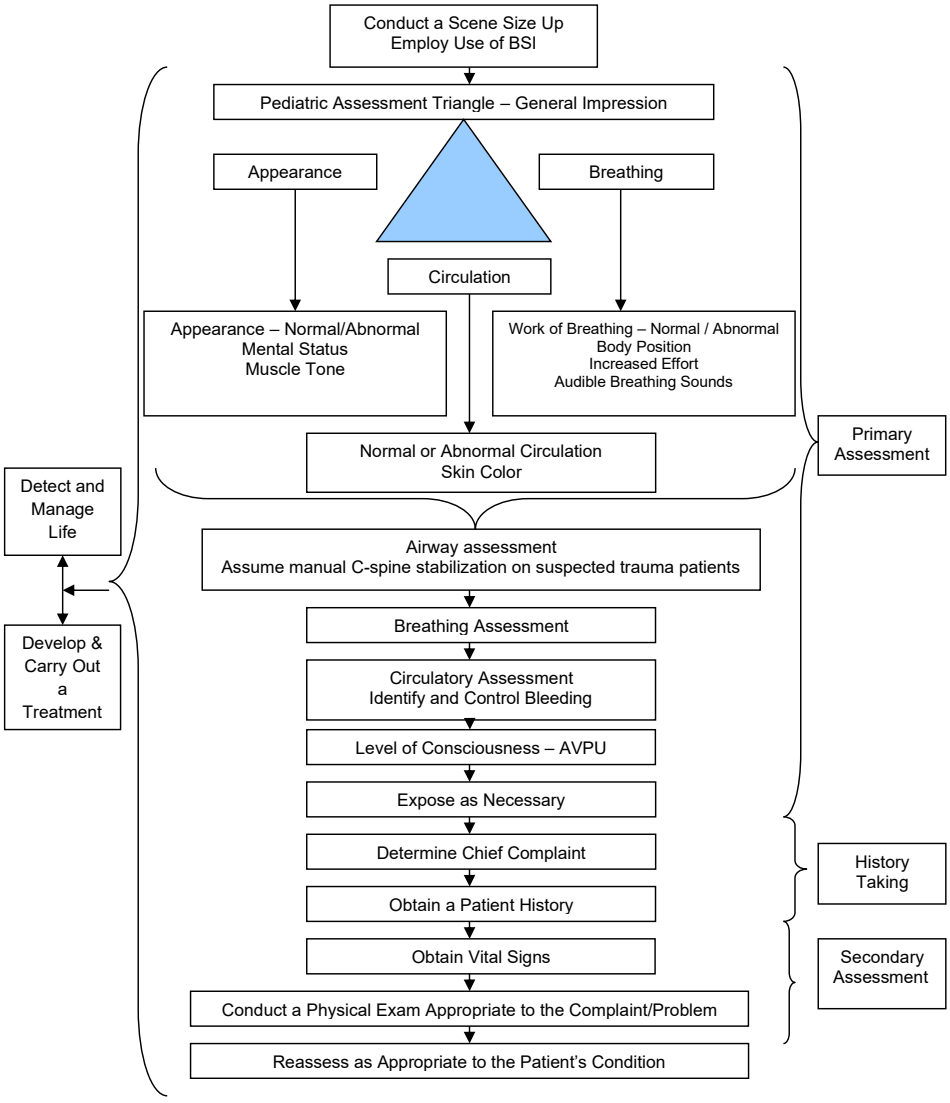
- **Rate: 90 compressions + 30 breaths/min (120 events/min total)**

Use **two-thumb encircling technique**

APGAR Scale – Score New Born at 1 Minute and 5 Minutes After Birth			
	0 Points	**1 Point**	**2 Points**
Heart Rate	Absent	<100	>100
Respiratory Effort	Absent	Slow Irregular	Strong Cry
Muscle Tone	Flaccid	Some Flexion	Active Motion
Irritability	No Response	Some	Vigorous
Color	Blue/Pale Centrally	Body Pink – Extremity Blue/Pale	Fully Pink

Pediatric General Principals

PEDIATRIC ASSESSMENT MODEL (Revised 12/7/2012)



Pediatric Routine Assessment and Care

Nebraska EMS Model Protocols
Pediatric Routine Assessment and Care
ROUTINE ASSESSMENT AND CARE (Revised 5/7/2024)

This Protocol applies to every patient contact and is the base from which other treatment protocols build upon.

Scene Size Up

- Assess scene safety – use standard/universal precautions – determine # of patients – consider additional resources
- Determine nature of illness/mechanism of trauma
- Determine age and estimated or stated weight
  - Newborn to 1 year is defined as an infant for resuscitation
  - 1 year to onset of puberty is defined as a child for resuscitation

Primary Assessment, Identify and Treat Immediate Life Threats

- If mechanism of trauma indicates
  - Consider manually stabilizing c-spine
- Form a general impression
- Determine level of consciousness – utilize AVPU scale
- If infant or child presents in cardiac arrest, begin chest compressions
- Assess airway
  - Foreign body airway obstruction – clear obstruction
  - Decreased LOC and patient cannot maintain own airway (no gag reflex)
    - Trauma suspected – utilize jaw thrust method to open airway
    - Medical patients – utilize head tilt, chin left method to open airway
      Consider oral airway
  - Decreased LOC and patient has decreased ability to maintain own airway (gag reflex intact)
    - Monitor closely – consider one of simple airway maneuvers above
  - Suction oral airway as needed
  - Patient can maintain own airway and no suction needed – no immediate intervention
- Assess breathing
  - Absent or agonal – begin ventilations with BVM attached to oxygen
  - Assess quality of breathing and lung sounds
    - Signs/symptoms of severe respiratory distress – impending respiratory arrest
      - Consider oxygen by oxygen delivery mask
      - Consider assisted ventilations with BVM attached to oxygen at minimum 15 liters per minute
    - Signs/symptoms of moderate respiratory difficulty
      - Consider oxygen by oxygen delivery mask
    - Signs/symptoms of mild respiratory difficulty
      - Consider oxygen by nasal cannula
    - No signs/symptoms of respiratory difficulty
      - Consider oxygen appropriate to nature of illness/ mechanism of trauma
  - Assisted ventilations chart

Age	Ventilations/Minute	Ventilations/Second
Newborn	40-60	1 Every Second
Infant	30-40	1 Every 2 Seconds
1-6 Years	20-30	1 Every 3 Seconds
6-12 Years	16-20	1 Every 3 to 4 Seconds
12-16 Years	12-16	1 Every 5 Seconds
Adult	10-12	1 Every 5 to 6 Seconds

- Assess circulation
  - Absent or pulse 60 or less – begin CPR – **follow Cardiac Arrest Protocols**
  - Assess for bleeding
    - Control external bleeding with direct pressure, pressure bandage, pressure points and/or tourniquet
    - May control external bleeding with the use of hemostatic agents or Junctional Tourniquets with physician medical director approval and direction.
  - Assess quality of pulse
    - Weak – rapid pulse, poor skin color, poor cap refill
      - Consider treating for shock
      - Consider assisted ventilations

        - Weak slow pulse
            - 60 or less begin compressions
            - Reassess airway and breathing – consider assisted ventilations
            - Assess for possible cause
        - Irregular pulse
            - Asses for possible cause
            - Strength, rate, rhythm normal, and skin normal – no immediate intervention
- Assess disability – quick neuro exam
    - Obtain Glasgow Coma Scale
    - Utilize a non-invasive scales and scores
    - Check peripheral circulation, movement, and sensory

Obtain Patient History

- Obtain a chief complaint
- Obtain SAMPLE history
- Consider use of OPQRST pneumonic
- Obtain pertinent negatives

Vital Signs

- **EMR**
    - Pulse
    - Respiratory rate
    - Blood pressure
    - Pulse oximetry reading

Secondary Assessment

- Expose patient as needed
- Medical
    - Systematic assessment of major body systems
- Trauma
    - Systematic assessment for injuries

Reassessment

- Repeat assessment of patient based on condition
- Monitor vital signs
- Identify changes in patient condition adjust treatment as needed

Pediatric Normal Vital Signs

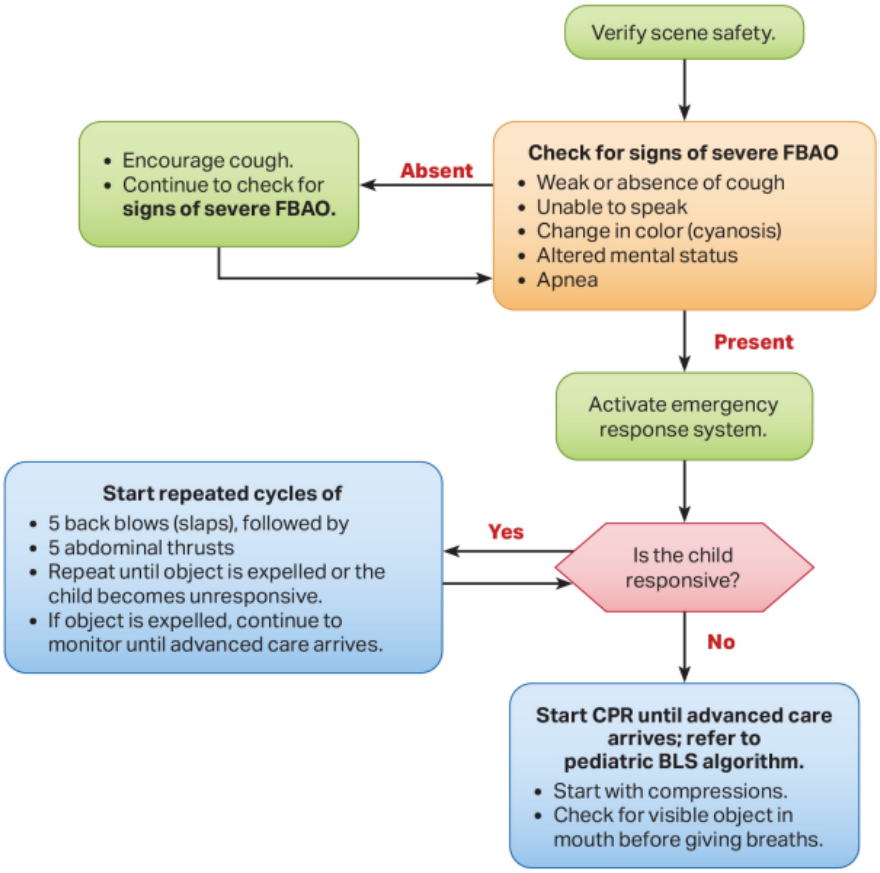
Age	Average Heart Rate	Heart Rate Range	Respiratory Range	Average Systolic BP	Range
Newborn	140	110 – 180	40 – 60	72	52 – 92
1 Month	135	90 – 170	30 – 50	82	60 – 104
1 Year	120	80 – 160	20 – 30	94	70 – 118
2 Years	110	80 – 130	20 – 30	95	73 – 117
4 Years	105	80 – 120	20 – 30	96	65 – 117
6 Years	100	75 – 115	18 – 24	97	76 – 116
8 Years	90	70 – 110	18 – 22	99	79 – 119
10 Years	90	70 – 110	16 – 20	102	82 – 122
12 years	85	60 – 110	16 – 20	106	84 – 128
14 years	80	60 – 105	16 – 20	110	84 – 136

Pediatric Glasgow Coma Score

Criteria	Adult/Child	Score	Infant
Eye Opening	Spontaneous	4	Spontaneous
	To Verbal	3	To Verbal
	To Pain	2	To Pain
	No Response	1	No Response
Best Verbal Response	Oriented	5	Coos, Babbles
	Disoriented/Confused	4	Irritable Cry
	Inappropriate Words	3	Cries Only to Pain
	Incomprehensible – Moans/groans	2	Moans to Pain
	No Response	1	No Response
Best Motor Response	Obeys Commands	6	Spontaneous
	Localizes Pain	5	Withdraws from Touch
	Withdraws from Pain	4	Withdraws from Pain
	Abnormal Flexion	3	Abnormal Flexion
	Abnormal Extension	2	Abnormal Extension
	No Response	1	No Response

Pediatric Medical Protocols

Child Foreign-Body Airway Obstruction Algorithm



If Airway Does Not Clear Request ALS Intercept

Partial Airway Obstruction

Monitor Patient Allow Patient to Cough, Be Alert for Complete Obstruction

AIRWAY – POST AIRWAY OBSTRUCTION (Revised 10/1/2020)

- Pediatric routine assessment and care

EMR

- Be alert for loss of airway due to swelling
- Consider oxygen and adjust delivery device and LPM flow to achieve 94% or better O2 saturation
- Considered assisted ventilations for inadequate breathing
- Positioning
  - Decreased mental status position on side
  - Alert patient allow patient to assume position of comfort
- Suction as needed
- Consider ALS

ABDOMINAL PAIN (Revised 8/27/2021)

- Pediatric routine assessment and care
- Consider pain management **See Pain Management Protocol

EMR

- Additional assessment concerns
  - Localize pain to abdominal quadrant if possible
  - Obtain bowel and bladder habits
- Consider OPQRST pneumonic for assessment of pain
- Allow patient to assume a position of comfort
- Consider ALS

ALLERGIC REACTION – ANAPHYLAXIS (Revised 09/22/2022)

- Pediatric routine assessment and care

EMR

- Assess severity of reaction
  - Itching and/or hives
  - No respiratory symptoms
- Administer oxygen and adjust delivery device and LPM flow to achieve 94% or better O2 saturation
- Consider assisted ventilations for severe reactions
- Consider ALS

CARDIAC ARREST – DISCONTINUING BYSTANDER CPR AND WITHHOLDING CPR (Revised 12/7/2012)

The EMR may be presented with patients in which bystander CPR has been started or the patient presents with certain sign/symptoms of obvious death or a valid DNR.

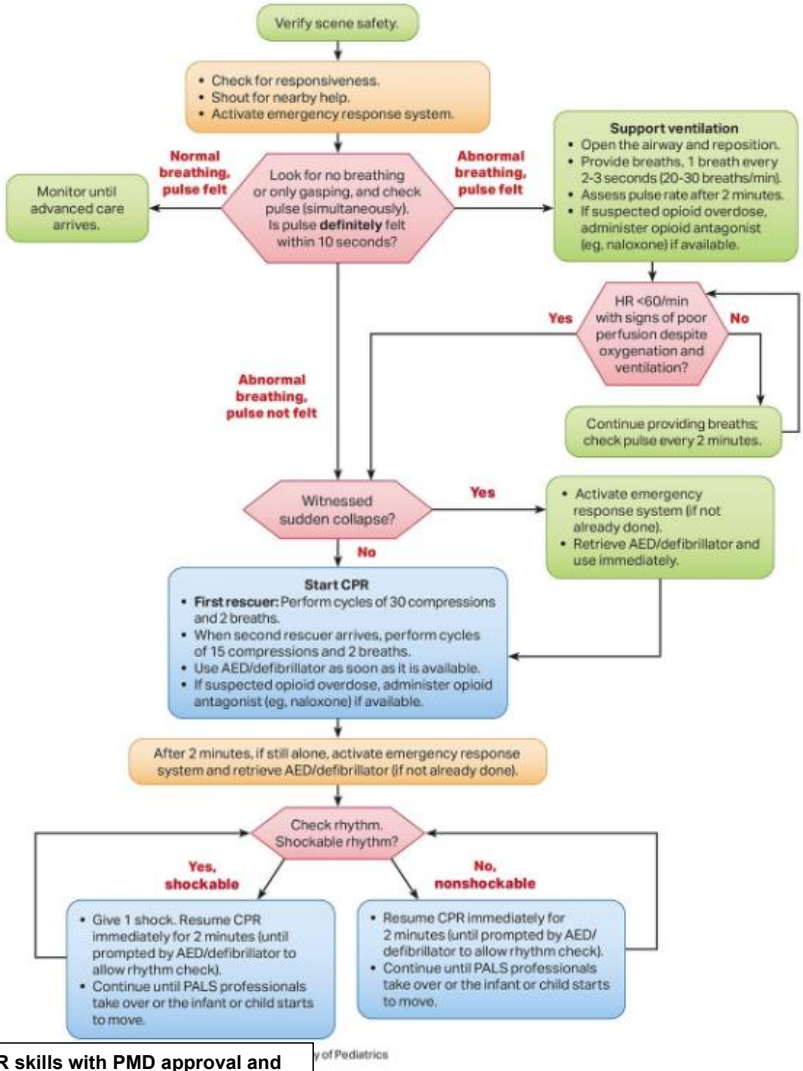
Situations where bystander CPR has been initiated OR EMS arrives and no CPR is initiated:

Un-Safe Scene
If the scene will place the ECP "at risk of serious injury or mortal peril"[2] CPR may be discontinued or withheld

- Confirm the patient has
  - No pulse
  - No respirations or attempts at respirations
- May Stop CPR or Not Initiate CPR IF the Patient Presents with **At Least One** of the Following;
  - Rigor mortis
  - Decapitation
  - Decomposition
  - Dependent lividity
  - Traumatic cardiopulmonary arrest with injuries incompatible with life; Examples
    - Massive blood loss
    - Displacement of brain tissue
  - Valid DNR form
  - Physician authorization on scene or online medical control
- The following will be included in the Patient Care Report;
  - CPR was or was not being performed prior to EMS arrival OR
  - If CPR was being performed, the time it was discontinued
  - The patient had No Respirations and No Pulse
  - The additional criteria (from above) use to discontinue or withhold CPR

CARDIAC ARREST – AED AND CPR (Revised 2025)

Pediatric Basic Life Support Algorithm (Infants to Puberty) for Health Care Professionals—Single Rescuer

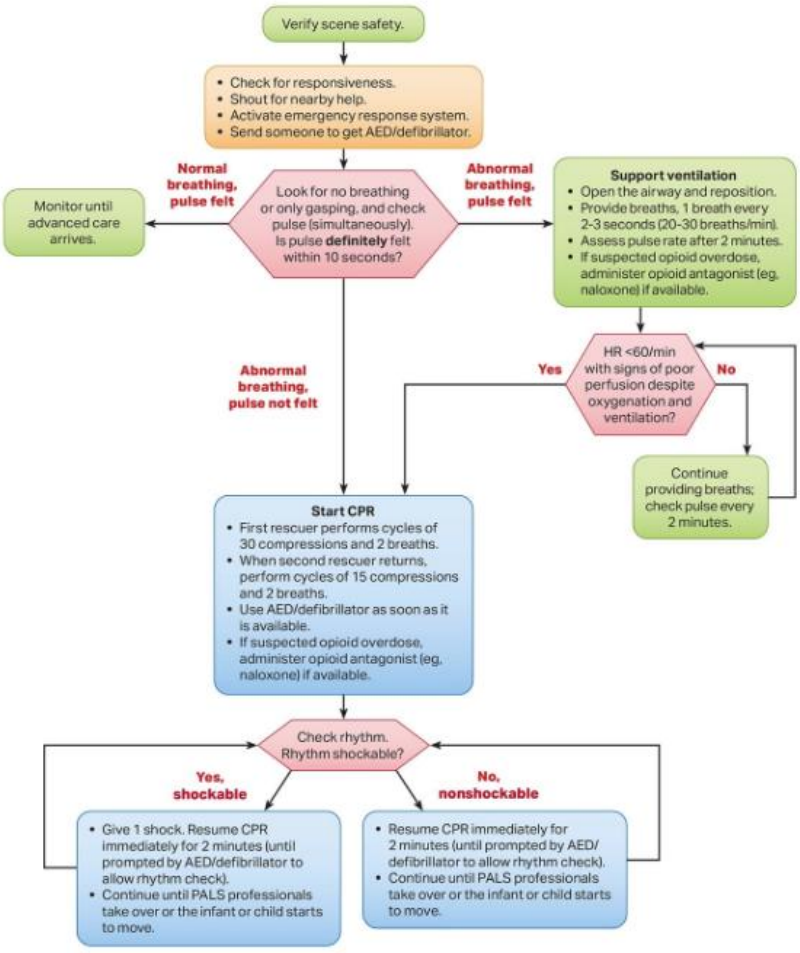


y of Pediatrics

EMR skills with PMD approval and competency training

- Consider mechanical CPR
- Place patient on back/CPR board
- Consider ALS

Pediatric Basic Life Support Algorithm (Infants to Puberty) for Health Care Professionals—2 or More Rescuers



CARDIAC ARREST – SPECIAL SITUATIONS (Revised 10/1/2020)

- **Follow cardiac arrest algorithm with these considerations**

Cardiac Arrest in Suspected Narcotic Overdose

- Consider consultation with medical control or PMD
- Consider naloxone 4mg Naloxone INTRANASAL for suspected or known narcotic overdose

CARDIAC ARREST IN HYPOTHERMIA-DROWNING (Revised 10/1/2020)

- Remove wet clothing and passively warm patient using blankets, warm packs, move to warm area if possible.

CARDIAC ARREST – RETURN OF SPONTANEOUS CIRCULATION (Revised 10/1/2020)

- Pediatric routine assessment and care

EMR

- Keep AED attached to patient
- Assist ventilations and adjust delivery device and LPM flow to achieve 94% or better O2 saturation
- If gag reflex returns, removal oral airway
- Suction as needed
- Consider obtaining Diagnostic ECG and transmit if able
- Consider ALS

DECREASED LEVEL OF CONSCIOUSNESS – DECREASED MENTAL STATUS (Revised 10/1/2020)

- Pediatric routine assessment and care
- Consider 4 mg Naloxone INTRANASAL for suspected or known narcotic overdose

EMR

- Consider oral airway and assisted ventilations
- Administer oxygen and adjust delivery device and LPM flow to achieve 94% or better O2 saturation
- Utilize a non-invasive stroke scale
- Obtain onset time
- Assess for medical or traumatic cause and utilize additional protocols as needed
- Consider ALS

EPIGLOTTITIS (Revised 5/7/2024)

- Pediatric routine assessment and care

EMR

- Allow patient to assume a position where he/she can maintain own airway
- If patient loses airway, attempt BVM ventilations
- Administer oxygen by blow by or oxygen delivery mask humidified if possible and adjust delivery device and LPM flow to achieve 94% or better O2 saturation
- Calm patient
- Consider ALS

HYPOGLYCEMIA – INSULIN SHOCK (Revised 7/1/2023)

- Pediatric routine assessment and care

EMR

- If no trauma, position patient to protect airway
- Consider oxygen and adjust delivery device and LPM flow to achieve 94% or better O2 saturation
- Assess for stroke
- IF PATIENT CAN FOLLOW SIMPLE COMMANDS AND PROTECT OWN AIRWAY;
  - Consider for children old enough to drink from glass having patient drink juice, non-diet pop or milk
- Consider ALS

HYPERGLYCEMIA – DIABETIC COMA (Revised 10/1/2020)

- Pediatric routine assessment and care

EMR

- Consider oxygen and adjust delivery device and LPM flow to achieve 94% or better O2 saturation
- Assess for stroke
- Assess for signs and symptoms of hyperglycemia
- If no trauma, position patient to protect airway
- Skill with PMD approval and competency training
  - Obtain blood glucose reading
- Consider ALS

NAUSEA – VOMITING – DIARRHEA (Revised 10/1/2020)

- Pediatric routine assessment and care

EMR

- Consider oxygen and adjust delivery device and LPM flow to achieve 94% or better O2 saturation
- Be prepared for suctioning
- Assess for cause of nausea
- Assess for dehydration
- Consider ALS

NON-TRAUMATIC NOSE BLEED (Revised 5/7/2024)

- Pediatric routine assessment and care

EMR

- Consider oxygen by oxygen delivery mask or blow by – humidified if possible and adjust delivery device and LPM flow to achieve 94% or better O2 saturation
- Position patient
  - Sitting upright
  - Head in neutral position
  - Avoid head tilt position
  - If upright not possible, consider lateral position
- Pinch nares together
- Direction to patient
  - Spit blood/clot out
  - Try not to swallow blood
  - Do not rub – blow nose or sniff
- Suction as needed
- Consider ALS

RESPIRATORY ARREST (Revised 10/1/2020)

- Pediatric routine assessment and care

EMR

- Open airway
  - Trauma suspected, use jaw thrust method
  - Non-traumatic, use head tilt-chin lift method
- Consider oral airway
- Monitor oxygen saturation and adjust ventilation/minute to achieve 94% or better O2 saturation
- Begin ventilations with bag-valve-mask or mouth to mask device attached to Oxygen
  - Infants 1 and under – 30 ventilations/min
  - Child 1 to 8 years – 24 ventilations/min
  - Child over age 8 to onset of puberty – 15 ventilation/min
- Suction as needed
- Consider cause. Use additional protocols if needed
- Consider ALS

RESPIRATORY DISTRESS – ASTHMA –CROUP - SPONTANEOUS PNEMOTHORAX - RESPIRATORY INFECTIONS (Revised 09/22/2022)

- Pediatric routine assessment and care

EMR

- Administer oxygen and adjust delivery device and LPM flow to achieve 94% or better O2 saturation
- Consider assisted ventilations
- Suction as needed
- Consider ALS

***Status Asthmaticus Means – sustained asthma not relieved by Oxygen, meter dose inhaler, or nebulizer treatment**

SEIZURE AND POSTICTAL PERIOD (Revised 10/1/2020)

- Pediatric routine assessment and care

EMR

- Active seizure
  - Administer oxygen (blow by acceptable during seizure) and adjust delivery device and LPM flow to achieve 94% or better O2 saturation
  - Protect patient – pads around patient
  - Do not restrain patient
  - Do not insert anything orally
- Postictal period
  - Consider oxygen and adjust delivery device and LPM flow to achieve 94% or better O2 saturation
  - Consider assisted ventilations and oral airway for persistent decreased mental status
  - Suction as needed
- Assess for trauma and stroke
- Consider ALS

TOXINS – AUTO-INJECTOR ANTIDOTE KITS (Revised 9/22/2022)
NERVE AGENT – ORGANOPHOSPHATE EXPOSURE

- Pediatric routine assessment and care

EMR

- May administer auto injector antidote kits to a fellow responder or patients in mass numbers when higher level ECP are overwhelmed.

TOXINS – INHALED (Revised 10/1/2020)

- Pediatric routine assessment and care

EMR

- Administer oxygen and adjust delivery device and LPM flow to achieve 94% or better O2 saturation
- Consider assisted ventilations
- Assess for trauma
- Suction as needed
- Consider ALS

TOXINS – STIMULANTS -–COCAINE -–METHAMPHETAMINE -–ECSTASY - OVERDOSE – POISONINGS (Revised 10/1/2020)

- Pediatric routine assessment and care

EMR

- Consider oxygen and adjust delivery device and LPM flow to achieve 94% or better O2 saturation
- Consider assisted ventilations
- Obtain name of medication/drug
  - **See Next Page for additional information**
- Obtain temperature
- If temperature is over 102°F and infection not suspected, consider passive cooling
  - Consider diagnostic ECG acquisition and transmission
- Consider ALS

SPECIAL INSTRUCTIONS FOR SPECFIC OVERDOSES (Revised 10/1/2020)

IF LEVEL NOT LISTED USE THE TOXIN – OVERDOSE PROTOCOL ABOVE

Narcotics
ALL LEVELS

- Consider 4mg Naloxone INTRANASAL for suspected or known narcotic overdose
    - If symptoms of narcotic overdose reoccur after initial response to Naloxone, re-administer dose

SHOCK (Revised 10/1/2020)

- Pediatric routine assessment and care

EMR

- Administer oxygen and adjust delivery device and LPM flow to achieve 94% or better O2 saturation
- Assess for trauma
    - Control external hemorrhage
    - Manually stabilize c-spine and extremity deformities
- Assess for dehydration
- Assess for potential of allergic reaction ****go to Allergic Reaction Anaphylaxis Protocol**
- Position supine unless respiratory status does not allow for this
- Conserve body heat
- Consider ALS

Pediatric Trauma Protocols

TRAUMA CARE HEAD – CHEST – ABDOMEN (Revised 10/1/2020)

- Pediatric routine assessment and care
- Assess for shock and treat
- Consider pain management **See Pain Management Protocol

<table>
<tr><th></th><th>Head/Neck/Spine</th><th>Chest</th><th>Abdomen</th></tr>
<tr><td rowspan="3">EMR</td><td colspan="3">Administer oxygen and adjust delivery device and LPM flow to achieve 94% or better O2 saturation
Consider assisted ventilations
Consider oral airway
Consider OQRST pneumonic for assessment of pain
Suction as needed
Manually stabilize head and neck
Control external bleeding
Stabilize impaled objects in place
Assess CMS
Consider trauma team – trauma system activation</td></tr>
<tr><td colspan="3">May control external bleeding with the use of hemostatic agents or Junctional Tourniquets with physician medical director approval and direction.</td></tr>
<tr><td>Open Trauma
• *Bandage open wounds
• *Consider occlusive dressing for open neck wounds

Closed Trauma
• * Consider cold pack to areas of edema</td><td>Open chest trauma – sucking chest wound
• *Seal wound with occlusive dressing

Closed chest trauma
• *Consider stabilizing fail sections with bulky dressings</td><td>Open abdominal trauma – eviscerations
• *Do not attempt to replace contents
• *Place contents on top of abdomen
• *Cover with thick moist dressing

Closed abdominal trauma
• *Attempt to localize pain to an abdominal region/quadrant</td></tr>
<tr><td colspan="4">Special consideration for extremity injuries in multi-systems trauma
• *Consider utilizing a full body stabilization device and splint injured extremities to the device and/or patient to allow for rapid scene time and then splint extremities
• *Stabilization of suspected pelvic and femur fractures is a high priority</td></tr>
</table>

AMPUTATIONS – EXTREMITY – SOFT TISSUE TRAUMA (Revised 10/1/2020)

- Pediatric routine assessment and care
- Assess for shock and treat
- Consider pain management **See Pain Management Protocol

<table>
<tr><th></th><th>Amputations</th><th>Extremity</th><th>Soft Tissue</th></tr>
<tr><td rowspan="3">EMR</td><td colspan="3">Administer oxygen and adjust delivery device and LPM flow to achieve 94% or better O2 saturation
Consider assisted ventilations
Consider oral airway
Consider OPQRST pneumonic for assessment of pain
Suction as needed
Manually stabilize head and neck
Control external bleeding
Stabilize impaled objects in place
Assess CMS
Consider trauma team activation</td></tr>
<tr><td colspan="3">May control external bleeding with the use of hemostatic agents or Junctional Tourniquets with physician medical director approval and direction.</td></tr>
<tr><td>• *Wrap amputated part in dressing and keep cool
• *Do not place tissue directly on ice</td><td>• *Manually stabilize painful and/or deformed extremity
• *Apply cold pack</td><td>• *Return avulsion type flaps to anatomic position if possible.
• *Bandage open wounds
• Consider removing impaled objects through the cheek into the mouth
• *For eye injuries – cover both eyes</td></tr>
<tr><td colspan="4">Special Consideration for Extremity Injuries in Multi-Systems Trauma
• *Consider utilizing a full body stabilization device and splint injured extremities to the device and/or patient to allow for rapid scene time and then splint extremities
• *Stabilization of suspected pelvic and femur fractures is a high priority</td></tr>
</table>

BITES AND ENVENOMATION (Revised 10/1/2020)

- Pediatric routine assessment and care
- Assess for shock and treat
- Consider pain management **See Pain Management Protocol

EMR

- Consider oxygen and adjust delivery device and LPM flow to achieve 94% or better O2 saturation
- Consider OPQRST for assessment of pain
- Control any external bleeding
- Consider manual stabilization of affected extremity
- Human bites and animal bites
  - Bandage wound
- Snake bite
  - Attempt to identify breed of snake if safe to do so
- Insect bites
  - Remove stinger/venom sac
- Spider bites
  - Consider cold pack
- Assess for allergic reaction **go to Allergic Reaction – Anaphylaxis Protocol**
- Consider ALS

BURNS (Revised 10/1/2020)

- Pediatric routine assessment and care
- Assess for shock and treat
- Consider pain management **See Pain Management Protocol

EMR

- Administer oxygen and adjust delivery device and LPM flow to achieve 94% or better O2 saturation
- Consider assisted ventilations
- Consider oral airway
- Consider OPQRST for assessment of pain
- Consider manual stabilizing of head/neck

Burn Type and Treatment Chart

<table>
<tr><th>Thermal Burns</th><th>Electrical Burns</th><th>Radiation Burns</th><th>Chemical Burns</th></tr>
<tr><td colspan="4">THINK SAFETY
Remember Scene Safety and Appropriate PPE</td></tr>
<tr><td rowspan="3">Stop burning process</td><td rowspan="3">Verify the electrical source is de-energized</td><td rowspan="3">Patient and radiation source need to be separated</td><td>Brush dry chemicals from skin flush with water</td></tr>
<tr><td>Wet chemicals – flush with water</td></tr>
<tr><td>Flush eyes continuously</td></tr>
<tr><td colspan="4">Do Not Apply Any Ointments or Creams</td></tr>
<tr><td>Do not intentionally rupture blisters</td><td>Assess for entrance and exit wounds</td><td>Decontaminate patient prior to transport</td><td>Decontaminate patient prior to transport</td></tr>
<tr><td colspan="3">Cover burns/wounds with dry or non-adhering dressings</td><td>Wrap patient with dry sheet</td></tr>
</table>

- Consider trauma system activation
- Consider ALS

CRUSH INJURY (Revised 10/1/2020)

- Routine assessment and care
- Assess for shock and treat
- Consider pain management **See Pain Management Protocol

EMR

- Administer oxygen and adjust delivery device and LPM flow to achieve 94% or better O2 saturation
- Manually stabilize head/neck
- Consider oral airway
- Consider assisted ventilations
- Consider OPQRST for assessment of pain
- Control external bleeding
  - Control external bleeding with direct pressure, pressure bandage, pressure points and/or tourniquet
  - Control external bleeding with the use of Junctional Tourniquets with physician medical director approval and direction.
- Consider trauma system activation
- Consider ALS

ENVIRONMENTAL TRAUMA – EXPOSURE TO HEAT AND COLD (Revised 10/1/2020)

- Pediatric routine assessment and care
- Assess for shock and treat
- Consider pain management **See Pain Management Protocol

EMR

- Administer oxygen and adjust delivery device and LPM flow to achieve 94% or better O2 saturation
Manually stabilize head/neckConsider assisted ventilations
- Consider OPQRST for assessment of pain

- Exposure to cold – hypothermia
  - Gently move patient to warm area if no spinal injury suspected
  - Remove wet clothing
  - Frozen/ near frozen extremities
    - Expose to warm surroundings
    - Consider dry dressing to pad
  - Body wide hypothermia
    - Passively warm patients with warm packs and blankets
- Exposure to heat
  - Gently move patient to cool area if no spinal injury suspected
  - Remove excessive clothing
  - Normal mental status and perspiration intact
    - Passive cool patient with fanning and cool dressing
  - Decrease mental status and/or no perspiration
    - Aggressive cooling with wet sheet, fanning and cold packs
- Consider trauma system activation
- Consider ALS

CHILD ABUSE (Revised 10/1/2020)

- Routine assessment and care
- Assess for shock and treat
- Document
  - Factually injuries
  - Patient statements
- Report suspicions to destination facility and law enforcement
- Consider pain management **See Pain Management Protocol

EMR

- Consider oxygen and adjust delivery device and LPM flow to achieve 94% or better O2 saturation
Consider OPQRST for assessment of pain
- Manage open wounds
- Stabilize impaled objects in placeConsider trauma system activation
- If possible, have EMS provider of same sex as patient provide assessment and treatment
- Consider ALS

Specialty Medical Treatments

PAIN MANAGEMENT (Revised 10/1/2020)

- Routine assessment and care

EMR

- Consider applying cold pack to painful/deformed extremity
- Place in position of comfort

TRACHEOSTOMY EMS PROTOCOLS (Revised 3/9/2022)

General Principle:
If ventilation adequate; O2 applied to tracheostomy via blow by.

Maintain open airway by placing patient in the "sniffing" position.

If vital signs have not improved after initial oxygen, re-evaluate oxygen delivery and adjust accordingly.

If not ventilating adequately: assist with BVM and 100% O2. Bag valve to trach, Bag-valve-mask to trach stoma, Bag-valve-mask to nose and mouth with occlusive dressing over trach stoma.

If pulse oximetry is used, adjust oxygen delivery devices to an oxygen saturation of 94% or above if possible.

EMR

- Level of consciousness
  - Alert, verbal, pain, or unresponsive
- Approach
  - In a calm manner
  - DO NOT excite/scare patient

Airway	**Trach Clear**	**Trach Obstructed**
	Maintain airway. If necessary, assist patient/caregiver with suctioning trach as needed.	Assist patient/caregiver with suctioning trach up to 3 times. If unable to clear trach, remove it.
Breathing	Administer oxygen	Administer oxygen
Consider	Assisting patient/caregiver ventilations with Bag-valve-trach	Assisting ventilations with BVM. Place an occlusive dressing over stoma site.
Circulation	Vital signs, skin color/temp	Vital signs, skin color/temp
Assess	Conduct a Simple Patient Assessment	Conduct a Simple Patient Assessment

WOUND CARE TOURNIQUET (Revised 10/1/2020)

Clinical Indications:

- Life-threatening extremity hemorrhage that cannot be controlled by any other means.
- Serious or life-threatening extremity hemorrhage and tactical considerations prevent the use of standard hemorrhage control techniques.

Contrindications:

- Non-extremity hemorrhage
- Proximal extremity location where tourniquet application is not practical

Procedure:

- Place tourniquet proximal to wound
- Tighten per manufacturer instructions until hemorrhage stops and/or distal pulses in affected extremity disappear.
- Secure tourniquet per manufacturer instructions
- Note time of tourniquet application and communicate this to receiving care providers.
- Dress wounds per standard wound care protocol.

If one tourniquet is not sufficient or not functional to control hemorrhage, consider the application of a second tourniquet more proximal to the first.

Special Situations

ELECTRONIC CONTROL DEVICES (TASER) (Revised 10/1/2020)

Electronic Control Devices (Taser) is a device that uses an electrical shock to render an individual incapable for a short time to continue physical activity.

Electronic Control Devices may use probes that only have to be placed against the skin or devices in which probes are discharged and impaled into the skin.

- Routine assessment and care

EMR

- Consider oxygen and adjust delivery device and LPM flow to achieve 94% or better O2 saturation
- Assess for trauma
  - Consider manual stabilization of head/neck
  - Consider manual stabilization of painful/deformed extremities
  - Care for open wounds
- For impaled probes in breast face/neck or genitals
  - Stabilize in place
- For impaled probes not in breast face/neck or genitals
  - Place finger on each side of probe
  - Pull probe straight outward
  - Control bleeding and bandage
- Consider ALS

EMR Assisting EMT, AEMT, or Paramedic

A licensed EMR may assist the EMT, AEMT or Paramedic with patient care and perform care within the practices and procedures of the EMR including any PMD authorized skills.

The EMR may assist the EMT, AEMT or Paramedic under direction with;

- Spiking an IV bag;
- Retrieving medications, and other supplies from box/bags/cabinets;
- Witness the waste of controlled medications; and
- The ultimate responsibility for any assisted procedure remains with the EMT, AEMT or Paramedic
-

RESTRAINT (Revised 12/7/2012)

EMR

- Non-combative patients
  - Calm and reassure patient
  - Give clear explanations and directions
- Combative patients
  - Contact law enforcement
  - Consider physically restraining patient
    - Supine
    - Physically restrain one arm above head
      - If injury or limited range of motion, restrain arm at patient's side
    - Physically restrain second arm at side
    - Physically restrain each leg just above knee
    - Consider use of commercially available spit hood

MCI - SALT TRIAGE (Revised 10/1/2020)

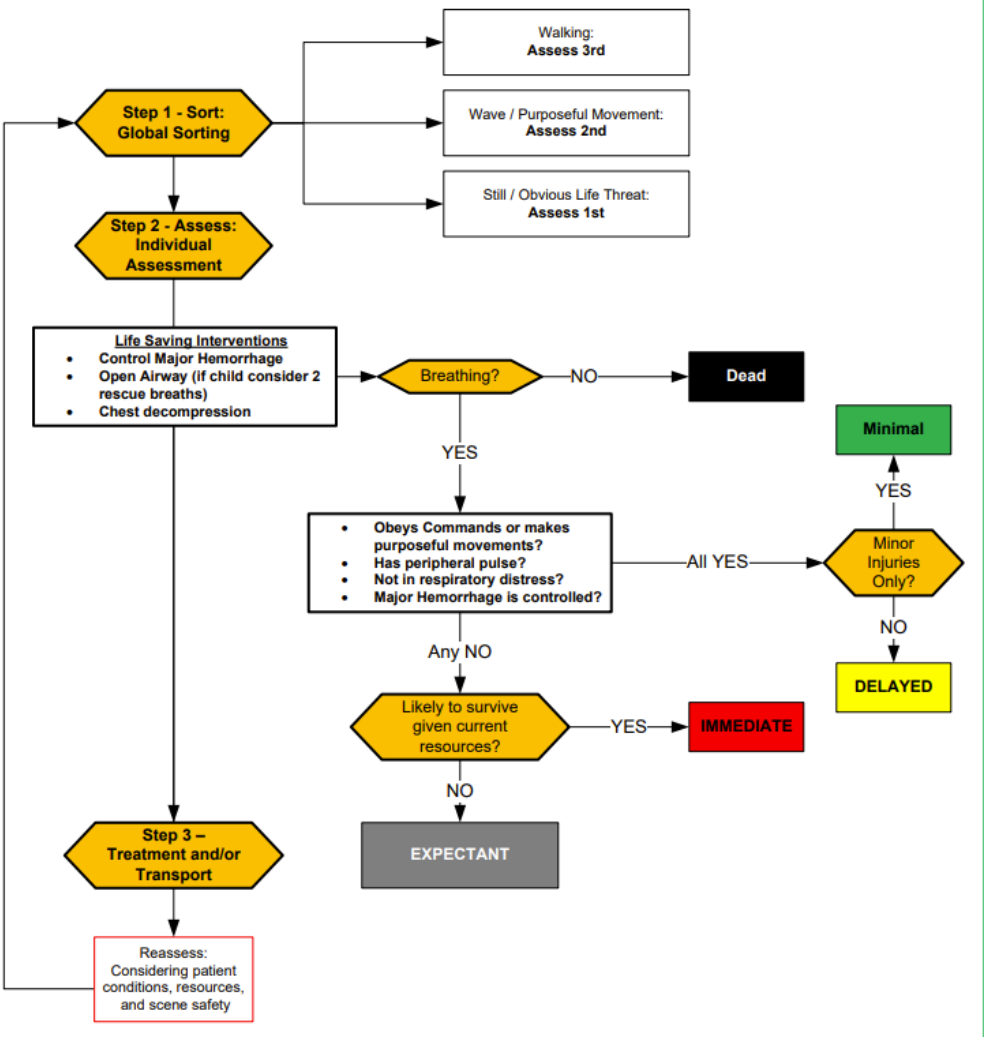
The SALT Triage method is the adopted triage method for multiple patient incidents.
Triage Colors:

- Green/Minor – Walking type wounded requiring little or no care
- Yellow/Delayed – Unable to ambulate and require care
- Red/Immediate – Unable to ambulate and require immediate care
- Black – Patient without a pulse or injuries incompatible with life

No LEVEL may perform a procedure that is not within their scope of practice.

MCI – SALT Triage

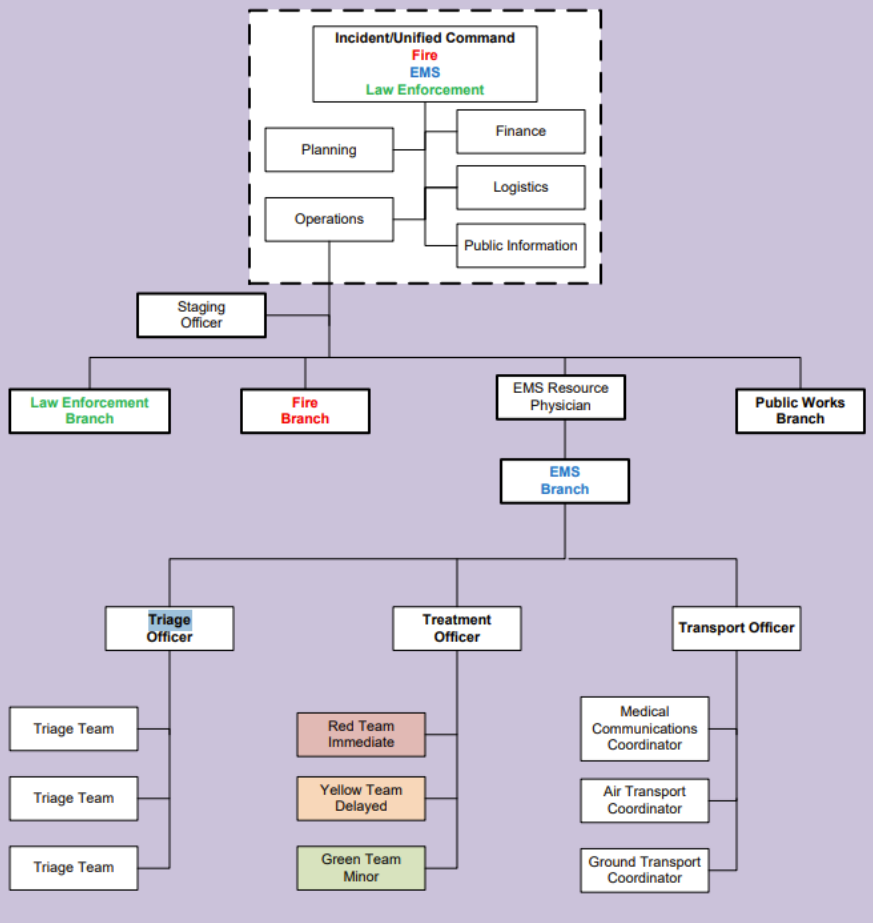
* All infants with signs of life who are patients in an MCI are automatically triaged as "IMMEDIATE" or "red tag"



MCI – Triage

Special Response Protocols

Sample Medical Incident Command Structure



Pearls

- **Follow local HAZMAT protocols for decontamination and use of personal protective equipment.**
- **Notify local hospitals as soon as possible to activate hospital resources and to assist with distribution and tracking of patients.**
- **Begin triage with the patient closest to you.**
- **Be aware of safety hazards and request additional resources early.**
- All infants with signs of life should be triaged category RED.

Medication Formulary (Revised 5/7/2024)

Nebraska EMS Medication Formulary Sorted By Class												
Class	Medication Name	Other Name	Antidote	EMR					Special Information	Adult Dose	Pediatric Dose Maximum Dose Not to Exceed Adult Dose	Route(s)
Antidote	Naloxone	Narcan		X					If symptoms of narcotic overdose reoccur after initial response to Naloxone, re-administer dose	4 mg May repeat dose for recurrence of opioid overdose symptoms as needed	4mg May repeat dose for recurrence of opioid overdose symptoms as needed	INTRANASAL
	Atropine - Pralidoxime Separate Auto Injectors	2-Pam		*					Mark I	Mild Symptoms – One Each	Mild Symptoms One Each (All Ages)	Auto-Injector
										Moderate Symptoms – Two Each	Moderate and Severe Symptoms Age 3 to 7 years – One Each	
										Severe Symptoms – Three Each	Age 8 – 12 years – Two Each	
											Over 12 years – Use Adult Dosing	
	Atropine-Pralidoxime Auto-Injector	DouDote		*					DouDote Kit	Mild Symptoms – One	Mild Symptoms One (All Ages) Moderate and Severe Symptoms	Auto-Injector
										Moderate Symptoms – Two	Age 3 to 7 years – One	
										Severe Symptoms – Three	Age 8 – 12 years – Two	
											Over 12 years – Use Adult Dosing	
											May Repeat	
										0.5 to 1mg Sedation May Repeat	0.05 mg /kg - Sedation	
											May Repeat	
										2 to 4 mg Induction	0.1 mg/kg – Induction May Repeat 1/2 Initial Dose to Maintain Sedation	
										May Repeat 1 to 2 mg to Maintain Sedation		
	Oxygen – BVM			X						10 – 15 LPM	10 – 15 LPM	
	Oxygen – Nasal Cannula			X						1 to 6 LPM	1/4 to 6 LPM	
	Oxygen – oxygen delivery mask			X						10 to 15 LPM – non-rebreather mask	10 to 15 LPM – non-rebreather mask	Note: Oxygen delivery masks may have minimum or maximum flow rate requirements listed by the manufacturer. Always

Nebraska EMS Medication Formulary Sorted By Class												
Class	Medication Name	Other Name	Antidote	EMR					Special Information	Adult Dose	Pediatric Dose Maximum Dose Not to Exceed Adult Dose	Route(s)
												administer within manufacturer recommended ranges.
Sympathomimetic	Epinephrine - 0.15mg Auto-Injector	EpiPen Jr		*						Adults Use 0.30 mg Epinephrine Auto Injector	30 kg and Under Use 0.15 mg Epinephrine Auto Injector	SubQ
	Epinephrine - 0.3mg Auto-Injector	EpiPen		*						Adults Use 0.30 mg Epinephrine Auto Injector	Over 30 kg Use 0.30 mg Epinephrine Auto Injector	SubQ
	Aspirin		*	X						4 Each – 81mg Chewed and Swallowed	Not Approved	PO
*Special Situations And/or Additional Training and PMD Approval Required												

Recent Updates

Protocol Updated	Date Updated	Brief Description	Page Number