REGION I EMERGENCY MEDICAL SERVICES

Emergency Medical Responder
Standing Medical Orders

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Key Considerations:

A. Bruises/welts/lacerations.
B. Injuries that are unexplained/poorly explained/incompatible with the explanation.
C. Burns shape and size often reflect object used to burn.
D. Repeated injuries.
E. Frequent hospitalization.
F. Repeated use of Emergency Department services for injury.
G. Discrepancies between history and presenting illness.
H. Time delay between injury and coming to hospital (1-2 days).
I. Reluctance to discuss circumstances surrounding injury.
J. Unexplained injuries.
K. Alleged third party inflicted injuries.

Treatment:

A. Scene safety, notify law enforcement if needed.
B. Routine Medical Care, Routine Pediatric Care, and/or Routine Trauma Care.
C. Treat injuries see appropriate SMO, such as Pain Management SMO.
D. If a parent or caregiver refuses to allow transport of the patient notify the police and stay on scene until they arrive.
E. Attempt to preserve evidence.
F. All suspected abuse must be reported to the appropriate agency.

Resources:

- **Adult Protective Services -** To report financial exploitation or neglect of an older person or a person with disabilities, ages call Adult Protective Services hotline number **1-866-800-1409**.
- **Department of Children and Family Services – 1-800-25ABUSE (1-800-252-2873).**
- **Domestic Abuse -** Information about shelter and alternatives is available 24 hours per day by calling the **Domestic Violence Hotline (1-800-799-7233).**
- **Elder Abuse (All persons 60 years of age or older):**
  - Adult Protective Services, 1-866-800-1409.
  - In Winnebago and Boone counties, the Visiting Nurse Association of Rockford (VNA) is designated by the Department of Aging to investigate all possible elder abuse cases. A report can be made directly to VNA at **(815) 971-3550**, 24 hours a day, seven days a week.
- **Nursing Home Abuse -** Suspected victims of nursing home abuse or neglect are to be reported to the proper authority as mandated by Illinois State Law PA 82-120, "The Abused and Neglected Long Term Care Facility Residents Reporting Act". This authority is the Division of Enforcement, Illinois Department of Public Health: call **1-800-252-4343** or the Ombudsman Program at **815-316-0040**.
- **Supportive Living Facilities -** For residents who live in Supportive Living Facilities call the Illinois Department of Healthcare and Family Services Complaint Hotline at **1-800-226-0768**.

Key Considerations: Mental status (AVPU), airway patency (head-tilt chin lift OR modified jaw thrust for unconscious patient or if c-spine trauma is a possibility), oxygenation and circulatory status (pulse oximetry, vital signs).

TREATMENT:

A. Assess airway patency utilizing adjuncts as indicated.
B. Oxygen as indicated for patient condition. Maintain SpO2 levels in the 94% to 99% if possible.
   - Nasal cannula (2-6 L/min) for awake, oriented, stable patients without evidence of hypoperfusion
   - High flow via non-rebreather mask (10-15 L/min).
   - Assist ventilations with BVM and 100% oxygen if indicated.
C. Manage Foreign Body Airway Obstruction per American Heart Association standards.
D. Assess airway patency utilizing adjuncts as indicated:
   - OPA
   - NPA
   - Supraglottic airway per EMS System approval according to manufacturer's guidelines
     - Kings Airway sizing
     - I-GEL Airway sizing
     - Confirm placement with three of the following: chest rise and fall; lung sounds; absence of gastric sounds; auscultation; Colormetric (if available)

Pediatric Patients

Key Considerations:

TREATMENT:

A. Pediatric Routine Care.

Kings Airway Chart

Size	Patient Criteria	Color	Inflation Volume	NG Max Size
0	< 5 kg (12.5 lbs)	Clear	10 ml	10 F
1	5-12 kg (12.5-26.4 lbs)	White	20 ml	10 F
2	12-25 kg (26.4-55 lbs)	Green	35 ml	16 F
2.5	25-35 kg (55-77 lbs)	Orange	40-45 ml	16 F
3	4-5 ft	Yellow	45-60 ml	18 F
4	5-6 ft	Red	60-80 ml	18 F
5	> 6 ft	Purple	70-90 ml	18 F

I-GEL Airway Chart

Size	Patient Criteria	Color
1.0	Neonate – 2-5 kg	Pink
1.5	Infant - 5-12 kg	Blue
2.0	Small Pediatric – 10-25 kg	Grey
2.5	Large Pediatric – 25.35 kg	White
3	Small Adult – 30-60 kg	Yellow
4	Medium Adult – 50-90 kg	Green
5	Large Adult – 90+ kg	Orange

Key Considerations: Amount of alcohol/drugs ingested, possibility of other drugs involved, medical history (trauma, tranquilizers, anticonvulsants, diabetes), altered mental status (AVPU), conditions that mimic intoxication (hypoglycemia, hypoxia, head injury, behavioral emergency).

TREATMENT:

A. Routine Medical Care.
B. Protect airway. Anticipate the possibility of respiratory arrest, seizures and/or vomiting.
C. O_2 and Airway Management as indicated.
D. If there is impending respiratory arrest and narcotic use is suspected or if patient unable to protect airway, consider **Naloxone**.
E. Obtain glucose check for adult:
   - If <80 and if gag reflex is intact, consider **Oral Glucose**.
F. Follow appropriate SMOs for:
   - Seizures:
     Seizures/Status Epilepticus
   - Respiratory/ cardiac arrest:
     Cardiac Arrest/CPR/AED
     Neonatal Resuscitation
     Pediatric Respiratory Distress/Failure/Obstruction/Arrest
   - Hypoglycemia
     Diabetic Emergencies
   - Refusal of Transport
     Refusal of Medical Care or Transport

Pediatric Patients

A. Routine Pediatric Care.
B. Obtain glucose check:
   • If <60 and if gag reflex is intact, consider **Oral Glucose**.

Key Considerations: Personnel in contact with the patient at the time of AICD firing will receive a shock of approximately 3 joules. This energy level constitutes NO DANGER to pre-hospital personnel (may feel a slight tingling).

Patient with ICD:

A. Routine Medical Care.
B. Avoid direct placement of defib pads over the ICD unit as this could damage the unit.
C. Any patient who has been shocked by his/her AICD should be strongly encouraged to seek medical attention regardless of the patient's current condition.
D. Notify receiving hospital early in order to enable them to get magnet ready to deactivate AICD.

Patient with LifeVest:

A. Routine Medical Care.
B. When a patient is wearing a LifeVest be aware of the following:
    - The LifeVest has an alert sequence that is initiated upon recognition of a treatable shock.
    - Listen to the voice prompts before making physical contact with the patient.
    - The EMS Provider can be shocked if contact with the patient during treatment sequence of the LifeVest.
    - If the LifeVest has blue stains the device has delivered a shock.
C. Any patient who has been shocked by his/her LifeVest should be strongly encouraged to seek medical attention regardless of the patient's current condition.

Patient with Pacemaker:

A. Routine Medical Care.
B. Avoid direct placement of defib pads over the pacemaker unit as this could damage the unit.

Patient with VAD

A. Routine Medical Care.
B. Contact Implant Coordinator:
    - Patient should have information sheet with number; they may be the best resource.
C. There are multiple devices in use; internal and external.
D. Blood flow may be continuous:
    - Patient may not have a palpable pulse
    - Look at other indication such as: LOC, shortness of breath, lightheadedness, skin
    - Non-invasive BP may or may not work
    - Pulse ox will not be accurate
E. No chest compressions unless approved by Implant Coordinator.
F. Defibrillation - standard method, do not put PADS over hardware.
G. VAD generally have two alarms:
    - Yellow – advisory
    - Red – critical
H. Patients are typically on anticoagulant / antiplatelet medication.
I. Patient could be in VF and awake if the pump is working.

I. Purpose: The purpose of this document is to provide guidelines when a patient a patient is having a behavioral or mental health emergency. These guidelines are considered complementary to Consent/Refusal of Medical Care and should be referenced when referring to these guidelines.

II. Definitions:

A. Mental Illness: a mental or emotional disorder that substantially impairs a person's thought, perception of reality, emotional process, judgment, behavior, or ability to cope with the ordinary demands of life, but does not include a developmental disability, dementia, or Alzheimer's disease absent psychosis, a substance use disorder, or abnormally manifested by repeated criminal or otherwise antisocial conduct. (405 ILCS 5/1-129).

B. Petition for Involuntary/Judicial Admission ("Form 5)": A document used to request that a patient be involuntarily admitted as an inpatient for mental health treatment because, **due to their mental illness or developmental disability**, they meet the criteria for involuntary admission set forth in Section III below. The form number for the Petition is IL 462-2005 and it can be found online at:
https://www.dhs.state.il.us/onenetlibrary/12/documents/Forms/IL463-3005.pdf

A Spanish-language version of the petition can be found online at:
https://wwwdhs.state.il.us/onenetlibrary/12/documents/Forms/IL462-2005s.pdf

III: Assertation Criteria for Initiation of the State of Illinois Department of Human Services – Division of Mental Health Petition for Involuntary/Judicial Admission ("Form 5")

(405 ILCS 5/1-119)

A. Note: Mental illness alone is insufficient to involuntarily detain a person. In order to involuntarily admit a person for mental health treatment they must meet the criteria for involuntary admission as set forth below.

B. A person meets the criteria for involuntary admission when:

1. A person with a mental illness who because of his or her illness is reasonably expected, **unless treated on an inpatient basis**, to engage in conduct placing such person or another in physical harm or in reasonably expectation of being physically harmed;
2. A person with mental illness who: because of his or her illness is unable to provide for his or her basic physical needs so as to guard himself or herself from serious harm without the assistance of family or others, unless treated on an inpatient basis; or
3. A person with mental illness who:
   a) refuses treatment or is not adhering adequately to prescribed treatment;
   b) because of the nature of his or her illness is unable to understand his or her need for treatment; and
   c) **if not treated on an inpatient basis**, is reasonably expected based on his or her behavioral history, to suffer mental or emotional deterioration and is reasonably expect, after such deterioration, to meet the criteria of either (1) or (2) above.
4. An individual who: is developmentally disabled and **unless treated on an inpatient basis** is reasonably expected to inflict serious physical harm upon himself or herself or others in the near future.

IV. Guideline Statement and Process: EMS Providers should act in the patient's best interest and consider the mental health needs of a patient who appears emotionally and or mentally incapacitated. In these situations, prehospital providers should employ the following guidelines:

A. If the patient poses an immediate threat to the safety of themselves or others, law enforcement shall be notified for assistance

B. Attempt to determine whether the patient's Decisional Capacity is impaired due to a medical condition (See Consent/Refusal of Medical Care)

   i. Assess Decision Making (Consent/Refusal of Medical Care) and potential for danger to self or others by observation, direct exam and reports from family, bystanders, law enforcement, or verified mental health personnel.

C. Identify yourself and always first attempt to treat and transport the patient with the patient's cooperation

   1. Any treatments/interventions which may ordinarily be suggested by the protocols can be waived if their attempted performance could responsibly be expected to compromise the cooperation of a patient who is otherwise agreeable to being transported or may reasonably be expected to cause an escalation of a patient such that patient and/or crew safety becomes endangered.
   2. The EMS Provider should describe their consideration of any withheld treatment/intervention which would have otherwise been indicated, as well as their rationale for withholding the treatment/intervention, in the Prehospital Care Report.

D. If the patient persists in refusing treatment/transport, or if the patient becomes combative, law enforcement involvement and evaluation should be obtained.

   1. EMS Providers should be constantly mindful of their safety and should avoid unnecessary danger at all times.
   2. Law Enforcement may take a person into custody and transport them for treatment when the law enforcement officer has reasonable grounds to believe, based on the Assertation Criteria in Section III above, that the person is subject to involuntary admission on an inpatient basis and in need of immediate hospitalization to protect such person or others from physical harm.
      a) EMS should provide information to law enforcement which would support such a belief whenever they are requesting that law enforcement transport someone involuntarily to a mental health provider.
   3. If, in the opinion of the pre-hospital provider, the decision of law enforcement or other responder, including a Mobile Crisis response team or similar personnel, not to assist EMS accessing, treating, or transporting a patient presents an issue that will or could result in patient harm, immediate request for on-scene EMS and law enforcement supervisory personnel should be made. In these situations, Medical Direction must be contacted.
   4. At no time should EMS Providers place themself in an unsafe situation per their assessment. IF EMS is unable to obtain law enforcement assistance to safely facilitate transport of a patient this should be documented and relayed to Medical Direction from the scene.
      a) If the EMS Provider cannot safely gain access to a patient, after exhausting all efforts at the persuasion and the EMS Provider believes that attempting to transport such a patient would constitute a threat to their safety, and law enforcement is unwilling or unavailable to provide assistance, the EMS provider may declare that the scene is "not safe" providing as much detail as possible (armed, barricaded, etc.) to Medical Direction.
      b) Medical Direction may not necessarily grant a refusal, rather medical direction shall acknowledge the crew's inability to treat/transport the patient due to safety reasons.
      c) If the scene is secured, EMS should return if needed.

5. The application of physical restraints and/or pharmacologic management/sedation when providing EMS care is required to prevent non-decisional patients from causing harm to themselves or others, to facilitate emergency assessment, or to allow for treatment of life-threatening injury or illness and should only be considered when all less-restrictive preventative measures have either been exhausted or may reasonably be expected to be ineffective.
   a) Physical restraints are to be utilized SOLELY for the purpose of preventing the patient from harming themselves or others, and only during circumstances in which the threat of harm posed by the patient is clear and immediate.
   b) Physical restraints should NEVER be applied to patients with decisional capacity, and should NEVER be used for any reason other than the prevention of harm, or in a manner that restricts breathing, circulation, or access for monitoring the patient.
6. If it is necessary to transport a patient against their will based upon a reasonable belief that the patient is mentally ill or developmentally disabled and inpatient treatment is the only way to prevent the patient from harming themselves or others as result of their mental illness or developmental disability, a Petition for Involuntary/Judicial Admission (Form 5) should be completed.
7. When completing a patient care report, document the assessment that led to the determination that the patient lacks Decision-Making Capacity (as applicable) as well as the clinical signs and symptoms on which the need for transport/treatment was based.

V. Initiation of State of Illinois Department of Human Services – Division of Mental Health Petition for Involuntary/Judicial Admission ("Form 5)

A. A "Form 5" is the first step in a legal process that protects the patient's rights and is necessary before a physician can determine if an involuntary admission is necessary.
B. A "Form 5" may be completed when EMS personnel or other adults have first-hand knowledge and reasonably believe that the patient is mentally ill or developmentally disabled and inpatient treatment is the only way to prevent the patient from harming themselves or others as a result of their mental illness or developmental disability. (See Assertation Criteria in Section III above).
C. Instructions for EMS Personnel completing the "Form 5", Note the most updated version should be utilized
   1. P. 1 Statutory reason for initiation of petition: Leave first page blank except for the patient's name. Enlist Hospital Personnel for assistance with furth completion.
   2. Assertions (p. 2): The EMS responder must insert the patient's name and check the assertion that applies; they believe the patient is (1) (2) (3) (4)
   3. P. 2 in the first open text box, write a detailed description of any acts or significant threats supporting the assertion and the time and place of their occurrence. Quote any statements made by the patient that substantiate the determination of risk.
   4. P. 2 In the second open text box complete the witness section to the best of your ability.
   5. P. 2 In the second open text box, list a spouse, parents, close relative, or guardians, or if none, any known friend of the patient who witnessed the behavior supporting the assertion of risk. List their addresses and phone numbers in the designated area. If unable to locate any, indicate that were unable to do so. Do not leave this section blank.

6. Prehospital provider should indicate on the EMS Patient Care Report that involuntary transport has been ordered per Medical Direction and/or if law enforcement is unable or unwilling to complete the “Form 5”.
7. The “Form 5” should be attached to the EMS Patient Care Report left at the hospital and shall become a part of the patient’s permanent medical record in the ED. If this form is completed appropriately by EMS personnel and a physician determines that an involuntary hospital admission is indicated the “Form 5” may be added to the physician’s certificate and admission orders as part of the statutorily required documents.
8. EMS Provider should inform the patient that under no circumstances does transport of the patient, whether voluntarily or against his/her will, commit the patient to a hospital admission. It simply enables the EMS providers to transport a person suspected to be in need of inpatient mental health treatment for examination by a healthcare provider who can make the determination of whether inpatient mental health treatment is necessary.

CPR GUIDELINES			
Component	Adults and Adolescents	Child (1 year to puberty)	Infant (under 1 year of age, excluding neonates)
Airway	Head tilt-chin lift. Jaw thrust if suspected cervical trauma		
Breathing: Without CPR	10-12 breaths/min (*Approximate*)	One breath every 2-3 seconds (12-20 breaths /minute) (*Approximate*)	
Breathing: CPR with advanced airway	One breath every 6 seconds (10 breaths/min) About one second/breath. Visible chest rise.	One breath every 2-3 seconds (20-30 breaths/min) About one second/breath. Visible chest rise.	
Foreign Body: Conscious patient	Abdominal thrusts (*use chest thrusts in pregnant and obese patients)* or chest thrusts if abdominal thrusts are not effective		Five back slaps and five chest thrusts
Foreign Body: Unconscious patient	Lower victim to the floor. Begin CPR, starting with chest compressions. Do not check for a pulse. Before you deliver breaths, look into the mouth. If you see a foreign body that can easily be removed, remove it. Continue CPR.		
Compression landmarks	Lower half of sternum between nipples		Just below nipple line (*lower half of sternum*)
Hand placement	Heel of one hand, other hand on top	As for adults (*may use both hands or the heel of one hand depending on the size of the child*)	Two thumbs – encircling hands preferred for two rescuers
Compression depth	At least 2 inches	Approximately one-third anterior/posterior depth of chest (*Approximately 2 inches in child/1 ½ inches in infant*)	
Compression rate **	100-120 per minute		
Compression – ventilation ratio without advanced airway	30:2 10:1 with continuous compressions	30:2 (single rescuer) 15:2 (two rescuers)	
AED GUIDELINES			
AED Defibrillation	Use adult pads	Use pediatric dose-attenuator system for children and infants if available. Use pediatric pads. If unavailable, use adult pads.	
NEONATAL GUIDELINES (*Less than 30 days old*)			
Assisted ventilation should be delivered at a rate of 40-60 breaths/minute to achieve or maintain a heart rate > 100 bpm. The ratio of compressions to ventilations should be 3:1 with 90 compressions and 30 breaths to achieve approximately 120 events per minute.			

**Apply a mechanical compression device (LUCAS, AutoPulse) per manufacturers' instructions if available.

Cardiac Arrest Post Resuscitation (ROSC)

Key Considerations: If patient has Return of Spontaneous Circulation (ROSC) consider that hyperventilation reduces venous return and may cause hypotension.

TREATMENT:

A. Optimize ventilation and oxygenation.
B. Contact Medical Control for further instruction.
C. Consider ALS Intercept.

[EMR care for Region 1 SMOs: Asystole/PEA, Ventricular Fibrillation/Ventricular Tachycardia, Symptomatic Bradycardia, and Narrow/Wide Complex Tachycardia]

Key Considerations: Delivering an infant usually progresses independently of prehospital providers. The critical question is whether delivery is imminent, indicated by crowning of the head or bulging of the perineum or rectum. The focus of care is to control delivery and prevent injury from expulsive forces that cause tearing of maternal perineal and pelvic tissues, injury of the infant's head, or inadvertently dropping the infant. However, make no attempt to stop an imminent delivery. Spontaneous abortion of fetus (>20 weeks) gestational age should be considered a neonatal resuscitation. See Neonatal Resuscitation SMO. Consider ruptured ectopic pregnancy in a woman of childbearing age with signs of shock.

TREATMENT:

A. Routine Medical Care.
B. Inspect the perineal area for:
    a. Fluid or bleeding
    b. Crowning (check during contractions)
    c. Abnormal presentation (breech, extremity, cord)
C. If birth is not imminent, place patient in left lateral position.

Normal Delivery

A. Assist with delivery.
B. Sterile technique.
C. Control and guide delivery of baby's head. After the head delivers, use bulb syringe to suction the infant's mouth first, then nares, if needed. This is critical if meconium is present because aspiration causes significant lung injury.
D. Check for nuchal cord – slide over head if possible. If tight, clamp and cut, unwind, and deliver baby quickly.
E. Proceed to control and guide delivery of the body.
F. Suction mouth first, then nares, if needed.
G. Clamp and cut cord – clamps should be placed at approximately 6 inches and 9 inches from baby, then cut between clamps.
H. Dry and wrap infant for warmth (especially the head); if possible, place with mother for shared body heat.
I. Note time of delivery.
J. Assess infant's status using APGAR score at 1 and 5 minutes post-delivery.
K. Evaluate mother post-delivery for evidence of shock due to excessive.

Pre-partum Hemorrhage – near term

A. Assume placenta previa (painless bleeding) or abruption placenta (sharp pain).
B. Check for crowning but DO NOT attempt vaginal exam.
C. Treat for shock.
D. Do not pack the vagina with any material to stop bleeding. An externally placed dressing or pad should be used to absorb flow.

Post-partum Hemorrhage

A. Fundal massage.
B. Immediate transport to nearest hospital.
C. Do not pack the vagina with any material to stop bleeding. An externally placed dressing or pad should be used to absorb flow.

Breech Delivery

A. Contact Medical Control for breech delivery.
B. Assist with delivery, if able.
C. Provide airway with gloved hand for baby if needed.
D. If unable to deliver, left lateral Trendelenburg position and rapid transport.

Prolapsed Cord

A. Left lateral Trendelenburg position, elevate hips, if possible or knee-chest position.
B. If cord is present, manually displace presenting part off cord and maintain displacement.
C. Rapid transport.

APGAR SCORE:

Appearance (skin color)	0=Body and extremities blue, pale	1=Body pink, extremities blue	2=Completely pink
Pulse	0=Absent	1=Less than 100/min	2=100/min and above
Grimace (Irritability)	0=No response	1=Grimace	2=Cough, sneeze, cry
Activity (Muscle tone)	0=Limp	1=Some flexion of the extremities	2=Active motion
Respirations	0=Absent	1=Slow and irregular	2=Strong cry

BLOOD LOSS ESTIMATION GUIDE

250 ml = 1 cup or clot mass size of an orange
355 ml = 12 oz soda can
500 ml = 2 cups or clot mass size of a softball

Floor spill
500 ml = 20 inches diameter
1000 ml = 30 inches diameter
1500 ml = 40 inches diameter

Cardiac Arrest

A. CPR with continuous manual left lateral uterine displacement using the two-handed method.
B. Ensure BVM ventilations are with high flow oxygen utilizing a two-person (if available) technique to prevent gastric inflation.
C. Consider BLS/ALS Intercept.

Key Considerations: In the absence of an established IV intranasal is a rapid route offering high level of bioavailability of the medication being administered. The intranasal route can reduce the risk of needle sticks while delivering effective medication levels. The nasal cavity provides a direct route into the bloodstream for medications that easily cross the mucous membranes. Due to this direct absorption into the bloodstream, rate and extent of absorption are relatively comparable to IV administration.

- The *ideal* volume for intranasal administration is 0.2-0.3 ml and the maximum recommended volume per nostril is 1 ml. If dose is greater than 0.5 ml, apply it in two separate doses allowing 5-10 minutes apart for each dose. The spacing allows the former dose to absorb.
- The MAD® atomizer has a dead space of 0.1ml, so particularly for doses less than 0.9 ml be sure to take the dead space into account by adding 0.1 ml to the final volume (i.e. volume of dose + 0.1 ml).

Contraindications:

A. Epistaxis (nosebleed)
B. Nasal trauma
C. Nasal septal abnormalities
D. Nasal congestion/discharge

Medication that may be used via intranasal route by EMRs:

- Naloxone

PROCEDURE:

A. Attach MAD tip to syringe.
    - Intranasal doses are listed in the Medication Administration Chart
    - Do not exceed 0.5 – 1.0 ml per nostril
B. Remove air from syringe.
C. Placed MAD tip into nostril.
D. Timing with respirations depress the plunger rapidly when the patient fully exhales and before inhalation.
E. Evaluate the effectiveness of the medication. If the desired effect has not been achieved consider repeating and/or changing the route of administration.

Key Considerations: Assessment, airway and infant body temperature cannot be over emphasized. The anatomical and physiological differences that are present in a newborn can cause severe problems if not recognized. All neonatal emergency patients should be transported to the hospital. Neonate is defined as less than 30 days old.

INFORMATION NEEDED

A. Gestational age.
B. Infant is part of a multiple birth or NICU graduate.
C. Meconium stained during birth (See Meconium Staining section below.)
D. Mother use of drugs or alcohol.
E. Known infant history.
F. Presence of special need (e.g. apnea monitor, etc).
G. If just born, time since birth.

OBJECTIVE FINDINGS

A. If just born 30 second cardiopulmonary assessment:
    - Airway, breathing (respiratory rate, quality, work of breathing, presence of cry)
    - Circulation (skin color, temperature, pulses, capillary refill, mental status)
B. If infant less than 30 days same arrest intervention as just born
C. Airway interventions and keep baby warm

TREATMENT:

Meconium Staining Noted

A. As soon as head is delivered attempt to suction before baby starts to breath.
B. If thick meconium or secretion present and signs of respiratory distress thoroughly suction mouth, then nose.

No Meconium Staining Noted:

A. Assess patient, dry immediately if wet and stimulate.
B. Assess airway patency. Secure the airway.
C. Suction mouth then nasopharynx.
D. Cover head with stocking cap or equivalent.
E. Clamp and cut the cord if necessary.
F. Evaluate respirations. Assist with BVM ventilation with 40-60 breaths / min with 100% oxygen for severe respiratory depression; use mask with 100% oxygen for mild distress.
G. Check heart rate at base of umbilical cord or auscultate precordium as indicated. Further treatment depends on heart rate.
H. If heart rate less than 60 bpm, continue assisted ventilations and begin chest compressions at 120 min.
I. If heart rate is 60-80 bpm then continue ventilations. If poor perfusion and no improvement after 30 seconds of ventilations with 100% oxygen, consider compressions at 120 min.
J. If hearts rate 80-100 bpm. Give 100% oxygen by BVM. Reassess heart rate after 15-30 seconds.
K. If heart rate greater than 100 bpm, check skin color. If peripheral cyanosis give oxygen by mask.
L. If unable to ventilate effectively with BVM consider supraglottic device.
M. Confirm proper airway device placement and ventilate 30 times a minute with continued chest compressions.
N. Continue to reassess respiratory rate and heart rate while enroute.
O. Perform chest compressions on the neonate per American Heart Association guidelines

Key Considerations: General appearance of patient, age, mental status (AVPU), skin condition, perfusion status, respiratory rate, breathing rhythm and pattern (patient positioning, such as tripoding), and blood pressure.

Pain Assessment (**O-P-Q-R-S-T**):

- **Onset –** when did the pain start?
- **Provokes** - what brings on the pain?
- **Quality** - what does it feel like?
- **Region / Radiation** where is it? Where does it go?
- **Severity** - how bad is it? (Rated on a consistently used scale) (1-10 grading scale)
- **Timing** - when did it start/end? How long does it last? How long have you had it?

TREATMENT:

A. Perform patient assessment and record vital signs, level of consciousness and oxygen saturation.
B. Reassure and comfort patient.
C. Provide care based on other SMOs related to the patient's presenting complaint.
D. Place the patient in position of comfort. If risk of spine injury, institute spinal restrictions.
E. Coach the patients breathing – calm, deep inhalations and slow relaxed exhalations.
F. Isopropyl alcohol wipes for nausea and vomiting.
G. Distract patient or encourage them to focus on something other than their injury or pain.

Pediatric Patients

Key Considerations: Consider use the FLACC Scale for patients 0-7 years of age.

TREATMENT:

A. Perform skills as listed above.

FLACC Scale	0	1	2
1 Face	No particular expression or smile.	Occasional grimace or frown, withdrawn, disinterested.	Frequent to constant frown, clenched jaw, quivering chin.
2 Legs	Normal position or relaxed.	Uneasy, restless, tense.	Kicking, or legs drawn up.
3 Activity	Lying quietly, normal position, moves easily.	Squirming, shifting back and forth, tense.	Arched, rigid or jerking.
4 Cry	No crying (awake or asleep).	Moans or whimpers; occasional complaint.	Crying steadily, screams or sobs, frequent complaints.
5 Consolability	Content, relaxed.	Reassured by occasional touching, hugging or being talked to, distractible.	Difficult to console or comfort.

Key Considerations: More than two-thirds of postpartum deaths after discharge are either moderately or substantially preventable. Identifying a postpartum patient early is crucial for proper diagnosis and treatment. Multiple Region 1 hospitals have implemented the "Orange Bracelet" Post Birth Alert System to draw attention to postpartum patients who may develop complications following discharge from the hospital.

PROCEDURE:

A. Each postpartum patient will receive an orange band at discharge. Patients are encouraged to wear it for six weeks.

B. If EMS providers respond to an emergency call and the patient is wearing an orange band, consider the following targeted assessments related to postpartum complications:
   1. Preeclampsia/Eclampsia
   2. Sepsis
   3. Perinatal Depression
   4. Substance Use Disorders
   5. Cardiomyopathy or Venous Thromboembolism

C. Provide appropriate treatment per the appropriate SMO. Consider transport upgrade if appropriate.

D. Provide an early alert to the receiving hospital stating the patient is wearing an "Orange Bracelet" and provide information regarding how many days/weeks since the patient delivered the baby.

E. Document the alert on the Patient Care Report.

I. Purpose: The purpose of this document is to provide guidelines for patient consent and refusal of evaluation, treatment, and/or transport.

II. Definitions:

A. Decision-Making Capacity (or Decisional Capacity): The ability to understand and appreciate the nature and consequences of a decision regarding medical treatment and the ability to reach and communicate an informed decision.

1. Tests of Decisional Capacity: Whether a patient understands and appreciates their condition, the nature of the medical advice given, and the consequences of refusing to consent. This generally can be determined a combination of the following assessments:
   a) Alertness and orientation: Person, place, time, and situation?
   b) Affect: Is the patient's behavior consistent with the environmental stimuli?
   c) Behavior: Is the patient acting in a controlled manner? Body language, agitation, hyperactive, inattentive, repetitive movements?
   d) Cognitive/judgment: Does the person understand and appreciate the relative information?
   e) Communication: Patients should be able to communicate a clear choice. This should remain stable over time. Inability to communicate a choice or inability to express the choice consistently may demonstrate lace of Decisional Capacity.
      (1) Is the patient speaking in full sentences with clear speech and normal speech tempo?
   f) Decision Insight: Can the patient appreciate the implications of the situation and the consequences of their decision?
      (1) Is the patient able to recognize obvious danger of their situation (if applicable)?
2. For patient situations in which the patient's decisional capacity, consent or threat to self or others is uncertain and, by extension, their right to refuse treatment/transport is unclear, the EMS Provider should contact Medical Direction

B. Intoxicated Person: a person whose mental or physical functioning is substantially impaired due to the current effects of alcohol and/or other drugs/mind-altering substances within the body. Patients who are intoxicated typically lack Decision-Making capacity.

1. Note that the presence of alcohol or drugs in a person's system does not automatically dictate a conclusion that the person lacks Decisional Capacity.
2. The patient should be assessed for clinical capacity as above.

C. Abandonment. Occurs when the provider-patient relationship, once it has been established, is intentionally and inappropriately ended by the EMS Provider. As it pertains to EMS Providers, the acceptable manners in which a provider-patient relationship may end include:

1. The patient with decisional capacity ends the relationship,
2. The patient's care is transferred to another qualified medical professional (See Advance Level Provider Response for information on downgrading,
3. The continuation of the provider-patient relationship constitutes a danger to the provider's safety
   a) Whenever a perceived conflict exists between the EMS Providers safety and their obligation to render aid, the safety and well-being of the EMS Provider must always take precedence.
   b) The EMS provider does not have a legal duty to act if doing so could put them in harms' way.

D. Consent: A decisional adult's agreement to be treated. Consent may be via verbal agreement to the treatment, gestures indicating their desire for treatment or via implied consent.
   1. Consent or refusal for treatment/transport should be "informed" by providing the information and explanation of treatment described in D(2) and (3) below.
   2. EMS personnel should clearly explain the proposed treatment(s) and/or recommendations for transport to the patient and, when appropriate, the family or guardian.
   3. The explanation shall include a disclosure of risk.
      1. Nature of potential illness/injury
      2. Nature, purpose, and need for the recommended examination/care
      3. Potential benefits and possible risks and complications of recommended treatment; plus, possible results of non-treatment
      4. Any pertinent alternative options if they refuse recommended treatment.

E. Implied Consent: Consent that is assumed by the reasonable belief that if the patient was able to provide consent, they would do so freely. Patients who are incapacitated, cannot provide informed consent to treatment, and do not exhibit the ability to make sound judgments, will be treated under the doctrine of implied consent.

F. Adult: A person who is eighteen (18) years of age or older or an emancipated minor

G. Minor: Any person under the age of eighteen (18) is a minor, but is legally recognized as an adult if the person:
   1. Has obtained a court order of emancipation
   2. Is married
   3. Is a parent – Note: Minors who are parents may also consent to the performance of healthcare services for this child
   4. Is pregnant

Note: Parental or guardian consent is not required for patients over the age of twelve (12) seeking treatment for mental health, sexually transmitted disease, sexual abuse/assault, alcohol, or drug abuse.

III. Refusal Procedure: Patient with Decision-Making Capacity

A. All patients should be offered treatment up to and including transport to the closest appropriate hospital, as applicable, after an attempt to obtain a history of present illness and physical exam has been made and permitted by the patient.

B. Determine Decision-Making Capacity of the patient and the reason for refusing care. Document your assessment and the reason for refusal of care if a reason is given.
   1. Inform the patient of the risks associated with refusal including the possibility of deterioration of medical condition up to and including death (if applicable), benefits of treatment/transport and alternative of decisions as well as the patient's understanding.
   2. Inform the patient that EMS evaluation and/or treatment is not a substitute for medical evaluation and treatment by a physician.
   3. If the patient's condition was discussed with Medical Direction, inform them that this also does not substitute for medical evaluation.

C. Complete and review the approved Refusal Form in its entirety with the patient in the presence of a witness.
   1. Patients should have vital signs obtained, unless refused.
      a) Patients should be informed when vital signs are abnormal.
      b) Refusal of vital signs should be documented.
   2. Obtain patient signature and have the patient date the form.
   3. If the patient refuses to sign the refusal form, document this on the patient care report.

D. Advise the patient to call 911, their primary care provider or present to the nearest Emergency Department if symptoms persist, change, or if the patient changes their mind regarding refusal of care.

E. Obtain a witness signature. This should preferably from someone who witnessed your explanation of risks, benefits, and alternatives of transport/treatment. Witnesses should sign in the following order of preference.
   a) Police Officer
   b) Family Member
   c) Crew Member

F. NEVER ADVISE AGAINST SEEKING MEDICAL ATTENTION!

G. Consider discussion with Medical Direction for high-risk conditions including:
   1. Suspected/Questioned impaired Decision-Making Capacity or ability to Consent.
   2. Suspected high-risk medical condition such as:
      a) Extremes of age (infants/elderly),
      b) Minor who is refusing care.
      c) Serious chief complaint (including be not limited to: chest pain/dysrhythmia, shortness of breath, BRUE, stroke-like symptoms, syncope, first time seizures, poison/overdose, suspected sepsis, suspected cervical spinal injury).
      d) Significant Mechanism of Injury (MOI) or suspicion of injury.
      e) You believe a patient requires evaluation.
      f) Conflict on scene regarding refusal of care.
      g) Suspected abuse situation involving a minor, elderly, or a person with a disability.
      h) Any altered mental status (individual or parent/guardian for a minor).
      i) Abnormal vital signs.
      j) Patient assessment dictates the patient should be transported by EMS to a different hospital than their original choice.

H. With any medical need, make all reasonable efforts to ensure that the patient receives medical care. Enlist family, friends, or law enforcement to help convince patient.

I. Complete a patient care report.

IV. Patients without Decision-Making Capacity: A patient without decision-making capacity lacks the ability to consent to or refuse treatment.

A. Determine Decision Making Capacity of the patient as above.

B. If the patient is seemed non-decisional and/or is deemed to be a danger to self or others, prehospital providers should carry out treatment and transport in the interest of the patient's welfare, and be treated under the doctrine of implied consent.
   1. Patients lacking Decision-Making Capacity are unable to complete a refusal form.

C. Attempt to determine whether the patient's Decisional Capacity is impaired due to a medical condition such as hypoglycemia, hypoxia, hypoglycemia, delirium, dementia, mental illness, trauma, stroke, or the presence of alcohol or other mind-altering substances. (see Altered Mental Status). If the patient's lack of Decisional Capacity is determined to be the result mental illness, see Behavioral Emergencies, Involuntary Petition.
   1. EMS Providers should be constantly mindful of their safety, and should avoid unnecessary danger at all times.
   2. Treat medical condition per appropriate medical guidelines.
      a) Any treatments/interventions which may ordinarily be suggested by the SMGs can be waived if their attempted performance could reasonably be expected to compromise the cooperation of a patient who is otherwise agreeable to being transported, or may reasonably be expected to cause an escalation of a patient such that patient and/or crew safety becomes endangered.
      b) The EMS Provider should describe their consideration of any withheld treatment/intervention which would have otherwise been indicated, as well as their rationale for withholding the treatment/intervention, in the Prehospital Care Report (PCR).
   3. Those medical conditions listed above, on their own, do not dictate a conclusion that the patient lacks decisional capacity. The patient must be assessed to determine whether he or she has the clinical capacity to make decisions.

D. Examples of patients generally lacking Decision-Making Capacity:
   1. The patient has altered thought processes or judgement from illness, injury, or medical condition.
   2. Alcohol, drugs, or other mind-altering substances(s) are substantially impairing the patient's judgement as above. This may be noted with slurred speech, ataxia, etc.
   3. Any minor (see below).

E. The EMS Provider should make every reasonable effort to gain the patient's consent to be transported, and should only initiate measures to treat/transport the patient against their will after all reasonable efforts to gain the patient's consent have been exhausted.

F. If the patient persists in refusing treatment/transport, or if the patient becomes combative, law enforcement involvement and evaluation should be obtained.

G. If, in the opinion of the pre-hospital provider, the decision of law enforcement or other responder, including a Mobile Crisis response team personnel, not to assist EMS with accessing, treating, or transporting a patient presents an issue that will or could result in patient harm, an immediate request for on-scene EMS and law enforcement supervisory personnel should be made. In these situations, Medical Direction must be contacted.

H. At no time should EMS Providers place themself in an unsafe situation per their assessment. If EMS is unable to obtain law enforcement assistance to safely facilitate transport of a patient this should be documented and relayed to Medical Direction from the scene.
   a) If the EMS Provider cannot safely gain access to a patient, after exhausting all efforts at persuasion and the EMS Provider believes that attempting to transport such a patient would constitute a threat to their safety, and law enforcement is unwilling or unavailable to provide assistance, the EMS provider may declare that the scene is "not safe" providing as much detail as possible (armed, barricaded, etc) to Medical Direction.
   b) Medical Direction may not necessarily grant a refusal, rather medical direction shall acknowledge the crew's inability to treat/transport the patient due to safety reasons
   c) If the scene is secured, EMS should return if needed

I. The application of physical restraints and/or pharmacologic management/sedation when providing EMS care may be required to prevent non-decisional patients from causing harm to themselves or others, to facilitate emergency assessment, or to allow for treatment of life-threatening injury or illness and should only be considered when all less-restrictive preventative measures have either been exhausted or may reasonably be expected to be ineffective.
   1. Physical restraints are to be utilized SOLELY for the purpose of preventing the patient from harming themselves or others, and only during circumstances in which the threat of harm posed by the patient is clear and immediate. Physical restraints should NEVER be applied to patients with decisional capacity, and should NEVER be used for any reason other than the prevention of harm, or in a manner that restricts breathing, circulation, or access for monitoring the patient.
   2. See Behavioral Emergencies/Restraints.

J. When completing patient care report, document the assessment that led to the determination that the patient lacks Decision-Making Capacity as well as the clinical signs and symptoms on which need for transport/treatment was based.

K. Patients who lack Decisional Capacity should not automatically be assumed to have a mental illness that requires involuntary admission for psychiatric treatment.

I. Minors

A. The consent of a parent or guardian is generally required for refusal or treatment for minors.

B. Minors cannot typically independently refuse care
   1. If indicated, a parent or guardian should complete the approved refusal form.
   2. All reasonable attempts should be made to release a minor to a legal guardian. If a legal guardian cannot be located, document your attempts.

C. If a parent or guardian is not immediately available to consent and, without treatment the minor's health would be adversely affected, EMS personnel should provide appropriate emergency treatment and transport.

D. If a parent or guardian refused to consent for treatment without which the minor's health is concerned to be in imminent danger contact Medical Direction. If parent or guardian refuses to let you treat and/or transport the child, remain at the scene. Contact Medical Direction and request police assistance. Request that the officer place the child in protective custody and assist with transport.

E. Complete the patient care report.

II. Patients in Law Enforcement Custody

A. Patients in law enforcement custody who have been assessed and have been determined to have Decision Making Capacity do not automatically lose the right to make decisions regarding their medical treatment. Law enforcement agents cannot compel EMS personnel to act in disregard of the rights of any person, regardless of whether such person is in police custody. If a law enforcement officer denies medical treatment to someone in their custody when treatment appears necessary, EMS personnel should provide the law enforcement office with full disclosure of risks of potential harm to the patient and attempt to gain their cooperation. If any disagreements occur with Law Enforcement, contact Medical Direction, and document the conversation with Law Enforcement.

B. Follow above procedure for refusals in patients with Decision-Making Capacity.
C. If a patient in law enforcement custody lacks Decision-Making Capacity, they should be treated per implied consent. Follow appropriate guidelines for those patients not having Decision-Making Capacity. Patients being treated under the doctrine of implied consent due to lack of Decisional Capacity should not automatically be assumed to have a mental illness that requires involuntary admission for psychiatric treatment; therefore, a Petition for involuntary admission (Form 5) may not be necessary.
D. If law enforcement has determined via breathalyzer that a person has blood alcohol level above a legal limit, and requests evaluation by EMS, a clinical assessment should occur.
    1. Legal intoxication alone does not necessarily correlate with a lack of Decisional Capacity. If disagreement with Law Enforcement occurs, contact Medical Direction.

III. Multiple Patients/Highway Response

A. In highway responses, Mass Casualty Incidents, or similar, a reasonable/common sense approach should be used. Responder and patient safety must be considered.
B. Potentially dangerous response should be conducted and coordinated with law enforcement to provide maximum safety to EMS responders, patients, victims, and bystanders.
C. Criteria for use of the Region One Multiple Victim Release Form.
    1. Large numbers of patients are present, generally >6, such that the demands of the scene outweigh the local resources, and/or
    2. Scene circumstances prohibit EMS personnel from completing the usual documentation (i.e. highway response)

    AND EITHER OR BOTH OF THE FOLLOWING TWO CRITERIA (#3 AND #4) APPLY

    3. Adult victims with Decision Making Capacity who:
        a) Claim no injuries/illness
        b) Who are not obviously injured/ill
        c) Have minimal mechanism for injury/illness
        d) Refuse transport

    OR

    4. Pediatric Patient involved in School Bus incidents in which medical direction has approved its use.
        a) For School Bus incidents, refer to School Bus Incidents Guidelines
    5. Other situations as authorized by Medical Direction
D. When utilizing the Region One Multiple Victim Release Form one EMS Run Report may be completed, and a copy of the approved Multiple Victim Release form should be attached to the Run Report.

Region One Multiple Patient Prehospital Refusal Form

Date: ___/___/___ Location of Call: _____

Time: Dispatched: _____ Enroute: _____ Arrived: _____ Completed: _____

Agency: _____Unit #:_____Call #:_____

Type of Incident: _____

_____

Medical Control Contacted? Y N M.D. / ECRN Name: _____

RELEASE FROM RISKS OF MEDICAL RESPONSIBILITY

I, ***listed below,*** hereby release the Hospital, EMS System and its physicians, nurses, and employees and the EMS agency and its' Personal of any responsibility and liability for the worsening of medical condition of multiple victims involved in this incident. I acknowledge that I have been informed of the risks and I voluntarily assume all responsibility. I acknowledge that all refusals carry the inherent risks of deterioration of medical condition up to and including death.

Print Name	Signature	DOB
Address		

Print Name	Signature	DOB
Address		

Print Name	Signature	DOB
Address		

Print Name	Signature	DOB
Address		

Print Name	Signature	DOB
Address		

Print Name	Signature	DOB
Address		

_____ _____

Signature of EMS crew #1 **Signature of EMS crew #2**

If School Bus Accident, signature of authorized school designee:_____

_____

Key Considerations: Status of airway, breathing, and circulation. Patients' chief complaint, allergies, and medications with special attention to patient prescription for blood thinners.

TREATMENT:

A. Appropriate blood and body secretions precautions should be used at all times by all personnel.
B. Perform patient assessment and determine chief complaint.
C. If load and go situation is found, transport immediately. Depending on time of transport consider ILS/ALS intercept.
D. Place patient in position of comfort unless contraindicated per Spinal Restriction SMO.
    - Unconscious patients should be placed on their side, to prevent aspiration.
    - If immobilized, tilt backboard if there is risk of aspiration.
E. When indicated administer oxygen:
    - For most patients maintain O_2 sats 94% to 99%.
        - If history of COPD sats 90% to 92% are preferred to avoid respiratory depression.
        - Don't withhold high flow O2 from cyanotic, confused, or distressed patient because of a history of COPD.
    - O_2 2-6 liters by nasal cannula.
    - O_2 10-15 liters by non-rebreather mask.
    - O_2 100% by BVM and move to Airway Management SMO .
F. Assess blood glucose for all suspected medical conditions including, but not limited to: altered mental status, diabetic emergencies, hypothermia, and multi-system trauma.
G. Pain Management, as appropriate.
H. Isopropyl alcohol wipes for nausea and vomiting.
I. All patients receive a set of vital signs at the beginning of patient care. A second vital signs will be taken, preferably just prior to transfer of care. Repeat vital signs every 10 minutes.
J. Ask patient or available caregiver about the time the patient was "last known well".
K. Assess response to interventions and medication (to include repeat vital signs).
L. Contact receiving hospital as soon as possible with patient assessment and treatment.
M. DO NOT delay transport. Treatment SMOs are guidelines and are not intended to be completed while on the scene, but continued enroute. All possible effort should be made to minimize scene time.

Key Considerations: Patient age, weight, scene assessment, nature of illness/mechanism of injury. Assessments and interventions must be tailored to each child in terms of age, size, and development. Providers must be familiar with assessment algorithms for medical emergencies, assessment mnemonics such as DCAP-BTLS for trauma emergencies, and use the current edition of the Broselow tape for determining appropriate equipment sizes, IV fluid rates, and medication dosing.

Consider the following when performing a pediatric patient assessment:

- Smile if appropriate to the situation.
- Keep voice at an even quiet tone.
- Speak slowly using simple, age appropriate terms.
- Use toys or penlight as distracters.
- Keep small children with their caregiver(s), allowing the caregiver to hold the child and assist with the assessment if necessary. Child must be properly restrained during transport.
- Kneel down to the level of the child if possible.
- Make as many of the following observations as possible prior to touching the child as physical contact may upset the child:
  - Level of consciousness.
  - General appearance, age appropriate behavior, malnourished or well-nourished appearance, purposeful eye movement, general mood, playing, using a pacifier or bottle.
  - Obvious respiratory distress or extreme pain.
  - Position of the child: upright, tripod, recumbent, semi-fowlers.
  - Muscle tone: good vs. flaccid.
  - Movement: spontaneous, purposeful, or symmetrical.
  - Skin color.
  - Life-threatening injuries.
- It may be necessary to interview an adolescent without a caregiver present to obtain accurate information about drug use, alcohol use, LMP, sexual activity, or abuse.

TREATMENT:

AIRWAY

A. Self-maintained.
B. Maintainable with positioning or assistance: held tilt/chin lift, jaw thrust, tripod, high fowlers.
C. Maintainable with adjuncts: Use Broselow tape for correct size.
D. Maintainable with suction.
E. Most pediatric patients can be successfully ventilated using BVM.
F. BVM, supraglottic are preferred airways for pediatric patients.

BREATHING

A. Rate - compare to normal for age. Rate greater than 60/min is critical in all ages.
B. Rhythm: regular; irregular; agonal.
C. Quality: work of breath; use of accessory muscles, head bobbing, see-saw breathing, retractions, nasal flaring.
D. Auscultate respiratory sounds for absence, presence, snoring, stridor, crackles, gurgling, wheezing, grunting.
E. Administer oxygen of 02 sat <94 and/or other signs of respiratory compromise:
   - Blow by
   - Nasal cannula
   - Non-rebreather
   - BVM

CIRCULATION

A. Heart rate – compare to normal for age.
B. Central/truncal pulses (apical, femoral, carotid) – strong, weak, absent.
C. Peripheral pulses – present/absent, strong, weak, thready.
D. Skin/mucous membrane color.
E. Skin temperature – hot, warm, or cool.
F. Blood pressure – use appropriate sized cuff: Use Broselow tape for correct size.
G. Use the Broselow Pediatric Trauma Score for B/P determination if appropriate cuff is unavailable or capillary refill time (children under age 3).
H. Hydration status – infant anterior fontanel status, mucous membranes, skin turgor, tears, urine output history.

DISABILITY

A. Use AVPU to assess responsiveness.
B. Assess pupil response.
C. Assess distal neurologic status – numbness or tingling.
D. Assess blood glucose.

EXPOSURE

A. Assess for hypo/hyperthermia. See: Hyperthermia SMO or Hypothermia SMO.
B. Check for significant bleeding.
C. Check for petechiae or purpura (purple discolorations that do not blanch with skin pressure).
D. Be aware of signs of child abuse and, if present, report to authorities.

Considerations for Children with Special Healthcare Needs (CSHN)

A. Refer to child's emergency care plan formulated by their medical providers, if available.
B. Understanding the child's baseline will assist in determining the significance of altered physical findings. Parents/caregivers are the best source of information on: medications, baseline vitals, functional/normal mentation, likely medical complications, equipment operation and troubleshooting, emergency procedures.
C. It may be helpful to use the DOPE mnemonic to assess problems with ventilation equipment or long-term catheters for feeding tubes. DOPE stands for:
    - D – Dislodged tube
    - O - Obstructed tube
    - P – Pneumothorax
    - E – Equipment failure
D. Assess in a systematic and thorough manner, regardless of underlying conditions. Use parents/caregivers as medical resources.
E. Be prepared for differences in airway anatomy, physical development, cognitive development, surgical alterations, or mechanical adjuncts. Common home therapies include: respiratory support, nutritional therapy, intravenous therapy, urinary catheterization, dialysis, biotelemetry, ostomy care, orthotic devices, communication or mobility devices, or hospice care.
F. Communicate with the child in an age appropriate manner. Maintain communication with and remain sensitive to the parents/caregivers and child.
G. The most common emergency encountered with the pediatric patient is respiratory related and so familiarity with respiratory emergency interventions/adjuncts/treatment is appropriate.

NORMAL VITAL SIGNS

Respiratory Rates

Age	Breaths/min
Infant (< 1 year)	30 – 60
Toddler (1-3 years)	24 – 40
Preschool (4-5 years)	22 – 34
School age (6-12 years)	18 – 30
Adolescent (13-18 years)	12 – 16

Heart rates

Age	Awake Pulse/min	Mean	Sleeping Pulse/min
Newborn-3 months	85-205	140	80-160
3 months-2 years	100-190	130	75-160
2-10 years	60-140	80	60-90
> 10 years	60-100	75	50-90

Blood pressure

Age	Systolic		Diastolic	
	Female	Male	Female	Male
1 day	60-76	60-74	31-45	30-44
4 days	67-83	68-84	37-53	35-53
1 month	73-91	74-94	36-56	37-55
3 months	78-100	81-103	44-64	45-65
6 months	82-102	87-105	46-66	48-68
1 year	68-104	67-103	22-60	20-58
2 years	71-105	70-106	27-65	25-63
7 years	79-113	79-115	39-77	38-78
Adolescent (15 years)	93-127	95-131	47-85	45-85

Abdominal Pain – 1.002

Key Considerations: Consider level of discomfort, associated symptoms, GI symptoms, urination, gynecological symptoms, and medical history.

Treatment:

A. Routine Medical Care
B. Nothing by mouth (NPO).
C. Isopropyl alcohol wipes for nausea and vomiting.
D. Consider ILS/ALS intercept.
E. Pain Management per SMO.

Pediatric Patients

A. Routine Pediatric Care.
B. Pediatric dosing for medications listed above.

Allergic Reactions: Mild or Moderate Reaction – 1.008

Key Considerations: Allergic reactions can vary in severity from a mild reaction consisting of hives and rash to a severe generalized allergic reaction termed anaphylaxis resulting in cardiovascular and respiratory collapse. Common causes of allergic reactions include: bee/wasp stings, penicillin or other drug allergies and seafood or nuts. Exposures can occur from ingestion, inhalation, injection or absorption through skin or mucous membranes. Common assessment findings include exposure to common allergens (bee stings, drugs, nuts, seafood, medications), prior allergic reactions, wheezing, stridor, respiratory distress, itching, hives, rash, nausea, weakness, anxiety

A. Routine Medical Care.
B. Remove etiologic agent if possible or relocate patient.
C. Oxygen as indicated.

Allergic Reactions: Severe Reaction / Anaphylaxis

A. Routine Medical Care.
B. To be categorized as a severe allergic reaction / anaphylaxis patient will have one or more if the following:
   - Altered mental status.
   - Hypotension (SBP < 90 and evidence of hypoperfusion).
   - Bronchospasm (difficulty breathing / wheezing).
   - Swelling of the face and/or airway.
C. Administer Epinephrine Autoinjector
   - Epi JR. 0.15mg for children weighing 33 pounds (15 kg) to 66 pounds (30kg).
   - Epi 0.3mg for patients greater than 66 pounds (30kg).
   - Consult Medical Control for children less than 33 pounds.

Pediatric Patients

A. Routine Pediatric Care.
B. Follow treatment as listed above.
C. Administer Epinephrine Autoinjector
   - Epi JR. 0.15mg for children weighing 33 pounds (15 kg) to 66 pounds (30kg).
   - Epi 0.3mg for patients greater than 66 pounds (30kg).
   - Consult Medical Control for children less than 33 pounds.

Altered Mental Status – 1.006

Key Considerations: The term *altered mental status* describes a change from the "normal" mental state. The term *level of consciousness* indicates a patient's state of awareness. Check surroundings for syringes, blood glucose monitoring supplies, insulin, etc. Be alert to changes in mental status and symptoms such as headache, seizures, confusion, trauma, etc. Obtain medical history: psychiatric and medical problems, medications, and allergies.

TREATMENT:

A. Routine Medical Care
B. Protect the patient's airway. Watch for vomiting and have suction available.
C. Protect patient's c-spine.
D. If equipment available, determine blood glucose level – normal range 60-120mg/dL.
E. Blood glucose < 80 with signs and symptom of hypoglycemia:
F. Oral Glucose if patient is alert with intact gag reflex.
G. Naloxone intranasal, for suspected opiate overdose with respiratory depression consisting of respirations < 12 and or very shallow respirations and/or signs of shock.

Pediatric Patients

A. Routine Pediatric Care.
B. Pediatric dosing of medications listed above.
C. Blood glucose <60 with signs and symptoms of hypoglycemia.

Bites, Stings and Envenomation – 1.012

Key Considerations: An insect, animal or human bite or sting frequently is a combination of puncture, laceration, avulsion and crush injuries. Complications are common—all patients who have been bitten/ stung should seek physician evaluation. Try to find out the type of animal or insect, time of exposure and history of previous exposures, allergic reactions, and any known specific allergen.

TREATMENT:

A. Routine Medical Care.
B. See Allergic Reaction Mild/Moderate or Allergic Reaction Severe as needed.
C. If patient is hypotensive, treat for Shock.
D. Scrape off any remaining stinger or tentacles.
E. Clean the affected area with saline, cover with sterile dressing.
F. Do not perform any of the following:
   - Tourniquets or constricting bands above or below the site.
   - Incision and / or suction.
   - Application of cold for snake or spider bites.

Pediatric Patients

A. Routine Pediatric Care.
B. Follow treatment as above.

Bronchospasm (Asthma/COPD/Wheezing) – 1.016

Key Considerations: Respiratory distress with acute bronchospasm can be seen in patients as a result of many causes including asthma, COPD, bronchitis, and allergic reaction. Treatment must be concentrated on airway patency and ventilation.

TREATMENT:

A. Routine Medical Care.
B. Administer O_2 as indicated.
C. If available, administer Albuterol Nebulizer or assist with patients' prescribed medication / inhalers.
D. Rapid transport.

Pediatric Respiratory Distress/Arrest/Obstruction/Failure Patients

TREATMENT:

A. Routine Pediatric Care.
B. Administer O_2 as indicated.
C. If available, administer Albuterol Nebulizer or assist with patients' prescribed medication / inhalers.
D. Follow SMO for CPR/AED if patient condition worsens.

Heart Failure/Pulmonary Edema/Cardiogenic Shock/ – 1.022

Key Considerations: Mental status, skin signs, perfusion status, respiratory rate (rhythm, pattern, and work of breathing), lung sounds, heart rate (rhythm and blood pressure trends), pedal edema, and JVD.

TREATMENT:

A. Routine Medical Care.
B. Position of comfort, usually upright.
C. Oxygen as indicated.
D. If patient is wheezing see Bronchospasm SMO.

Pediatric Patients

Key Considerations: Cardiogenic shock is not typical in pediatric patients and is generally a result of congenital issues.

Treatment:

A. Routine Pediatric Care.

Chest Pain of Suspected Cardiac Origin/STEMI – 1.025

Key Considerations: Patients with acute non-traumatic chest pain are among the most challenging patients cared for in EMS. They may appear seriously ill or completely well and yet remain at significant risk of sudden death or acute myocardial infarction. Sorting out which patient is experiencing chest pain of cardiac origin represents a tremendous challenge. Whenever there is question as to whether or not you should utilize this SMO, contact medical control for further guidance.

TREATMENT:

A. Routine Medical Care.
B. Administer O_2 as indicated.
C. Low Dose- ASA - chew and swallow.
D. If at any time patient becomes unconscious and pulseless, begin CPR.

Diabetic Emergencies- 1.030

Key Considerations: Altered level of consciousness, combativeness, cold/clammy skin, seizure, dizziness, weakness, odor of breath, blood glucose level.

TREATMENT:

A. Routine Medical Care.
B. Determine blood glucose level, if available.
C. If adult patient with glucose <80 **and/or** exhibiting signs of hypoglycemia:
   - Oral Glucose if patient is alert with intact gag reflex.
D. Reassess patient after medication is given. If no change in condition contact Medical Control for further orders.

Pediatric Patients

A. Routine Pediatric Care.
B. If patient with glucose <60 **and/or** exhibiting signs of hypoglycemia follow pediatric dosing for medications listed above.

Environmental Emergencies

Altitude Illness -1.007

Key Considerations: While uncommon in Illinois, Altitude Illness is defined in terms of Acute Mountain Sickness (typically greater than 5,000 ft), High Altitude Pulmonary Edema (HAPE), and High Altitude Cerebral Edema (HACE) (both typically greater than 8,000 feet). The highest elevation in Illinois is 1,235 feet in Scales Mound, Illinois in JoDaviess County. If Altitude Illness is suspected assessment should also consider alternate causes of the symptoms.

TREATMENT:

A. Stop ascent.
B. Airway Management, as symptoms dictate.
C. Descend as soon as scene conditions permit.
D. Consider treatment for:
   - Hypoglycemia
   - Hypo/Hyperthermia
   - Altered Mental Status
   - Pain Management
   - Dehydration
   - Exhaustion
E. If needed, administer oxygen to saturations ≥ 90%.

Pediatric Patients – Altitude Sickness:

A. Routine Pediatric Care.
B. Follow treatment as listed above.

Hyperthermia – 1.034

Key Considerations: Heat illness results from one of two basic causes:

- Normal mechanisms that regulate the body's thermostat are overwhelmed by environmental conditions such as heat stress or increased exercise in moderate to extreme environmental conditions.
- Failure of the body's regulatory mechanisms especially in older adults, young children, babies and ill or debilitated patients.

TREATMENT:

A. Routine Medical Care.
B. Remove the patient from the hot environment.
C. Begin cooling measures with cool water and fanning.

Pediatric Patients:

A. Routine Pediatric Care.
B. Follow treatment as listed above.

Hypothermia – 1.035

Key Considerations: Core body temperature less than 95 º F [35º C] can result from a decrease in heat production, an increase in heat loss, or a combination of the two factors. Most common cause is exposure to extreme environmental conditions. Classified as Mild (CBT of 96.8º F to a CBT of 93.2º F [36-34º C]), Moderate (CBT 93.1º to of 86º F [30ºC]), and Severe (CBT of < 86.0º F [<30ºC]).

TREATMENT:

1. Routine Medical Care.
2. Handle the patient very gently.
3. Remove the patient from the cold environment.
4. Cut away any wet clothing.
5. Conserve body heat with blankets.
6. Do NOT add external warming measures.
7. Assess pulse for 30- 45 seconds.
8. If the use of the AED is warranted do not shock the patient more than 3 times.

Pediatric Patients

A. Routine Pediatric Care.
B. Follow treatment as listed above.

Pediatric ALTE/BRUE Event – 1.044

Definition: A Brief Resolved Unexplained Event (BRUE) or Apparent Life Threatening Event (ALTE) is an event in an infant < 2 years old lasting less than one minute. Underlying causes can include pneumonia, bronchiolitis, seizure, sepsis, intracranial hemorrhage, and/or meningitis and characterized by one or more of the following:

A. Cyanosis or pallor.
B. Absent, decreased, or irregular breathing.
C. Marked change in muscle tone (hypertonia or hypotonia).
D. Altered level of consciousness.
E. Choking or gagging not associated with feeding or a witnessed foreign body aspiration.
F. Seizure-like activity.
G. Assess for signs of hypoglycemia - patient with glucose <60 (neonates <40) **and/or** exhibiting signs of hypoglycemia.

Key Considerations: ALTE/BRUE is a group of symptoms but not a specific disease. Consider overdose, hypoglycemia, trauma (accidental and non-accidental) and/or seizure.

TREATMENT:

A. Routine Pediatric Care.
B. Follow Airway Management SMO, as indicated.
C. Obtain and document any complications of pregnancy, birthdate and gestational age at birth, fever or recent infection, prior ALTE/BRUE episodes, and underlying medical conditions.
D. Assess blood glucose; see Diabetic Emergencies SMO.

Seizure – 1.052

Key Considerations: A seizure is a temporary, abnormal electrical activity of the brain that results in a loss of consciousness, loss of organized muscle tone, and presence of convulsions. The patient will usually regain consciousness within 1 to 3 minutes followed by a period of confusion and fatigue (post-ictal state).

Multiple seizures in a brief time span or seizures lasting more than five minutes may constitute status epilepticus and require EMS intervention to stop the seizure. Causes of seizures include: epilepsy, stroke, head trauma, hypoglycemia, hypoxia, infection, a rapid change in core body temperature (e.g. febrile seizures), eclampsia, alcohol withdrawal, and overdose.

TREATMENT:

A. Routine Medical Care.
B. Protect the patient from injury during the seizure. Take special care to protect the patient's head and airway (watch for vomiting and have suction available).
C. Administer O_2.

Pediatric Patients

TREATMENT:

A. Routine Pediatric Care.
B. Treatment as above.

Sepsis 1.053

Key Considerations:

A. All patients will be evaluated for sepsis if they exhibit any of the following infections:
- Pneumonia (cough/thick sputum)
- Urinary tract infection (painful urination, hematuria, change in urination)
- Altered mental status
- Blood stream/catheter related
- Abdominal pain, distention and/or diarrhea
- Wound infection, cellulitis
- Skin/soft tissue infection
- Device related infection

B. Any patient exhibiting signs of infection will be assessed for the following:
- Temperature > 100.4˚ F
- Temperature < 96.8˚ F
- Tachypnea > 20/min., PaCO2<32 mmHg; SpO2 ≤ 92%
- Tachycardia > 90 bpm
- Systolic BP < 90 mmHg

TREATMENT:

A. Routine Medical Care.

Pediatric Patient

A. Routine Pediatric Care.

Stroke 1.057

Key Considerations: Stroke, also known as cerebrovascular accident (CVA), is a sudden interruption in blood flow to the brain that results in neurological deficit. This interruption can be caused by ischemia (blockage) or hemorrhage (bleeding). It is the third leading cause of death in the United States and frequently leaves its survivors severely debilitated.

TREATMENT:

A. Routine Medical Care.
B. Perform GFAST Exam.
C. Ask patient or appropriate caregiver about the patient's time "last known well".
D. Protect airway, suction as necessary. Seizure and vomiting.
E. Administer O_2 as indicated.
F. Maintain head and neck in neutral alignment. Do NOT flex the neck.
G. If BP > 90 mmHg, elevate head of bed to 30°.
H. If altered sensorium, seizure, or focal neurological deficit, obtain and record blood sugar level.
I. If blood sugar < 80 administer Oral Glucose if patient is alert with intact gag reflex.
J. Monitor and record neurological status and any changes.
K. Protect paralyzed limbs from injury.
L. Whenever possible, the EMR should establish the last known well time.

Pediatric Patients

Key Considerations: Although rare in children, strokes can occur at any age.

TREATMENT:

A. Routine Pediatric Care.
B. Administer pediatric dosing for medications listed above.

G-FAST Screening:

GAZE DEVIATION: Does the person stare to one side and cannot move their eyes back to center
_____**Normal**: Patient able to move eyes from side to side and back to midline
_____**ABNORMAL**: Patient stares to one side and cannot move eyes back to midline or to look elsewhere

FACIAL DROOP: Ask the person to smile and/or show their teeth
_____**Normal**: Both sides of the face are equal, there is no droop noted to one side
_____**ABNORMAL**: One side the mouth or face is drooping, drooling or does not look the same

ARM DRIFT: Ask the person to hold both arms out in front of them for the count of 10
_____**Normal**: Both arms move equally
_____**ABNORMAL**: One arm drifts down or does not move at all, the other is normal

SPEECH: Have the person say a sentence (example: You can't teach an old dog new tricks.)
_____**Normal**: Sentence sounds normal, no slurring words and person uses correct words
_____**ABNORMAL**: Patient unable to speak (mute), words are slurred, incorrect words used

TIME: If the time of **Last Known Well** is **GREATER** than **24 hours**, then a stroke alert is **NOT** paged because the patient is outside of acute treatment window.

Syncope/Near Syncope 1.060

Key Considerations: Duration of the syncopal episode, symptoms before episode (palpitation, seizure, incontinence, aura), previous episodes of syncope, circumstances of occurrence (patient position, severe pain, emotional stress), vital signs (especially pulse rate, quality, regularity).

TREATMENT:

CONSCIOUS, ALERT, ORIENTED WITH HISTORY OF SYNCOPAL EPISODE

A. Routine Medical Care.
B. Cardiac monitoring.
C. Obtain and record blood sugar level.
D. Consider possible causes of syncope and/or altered sensorium:

T	-	Trauma/Temperature
I	-	Infection
P	-	Psychiatric
S	-	Stroke, Subarachnoid, Shock
A	-	Alcohol and other Toxins
E	-	Endocrine
I	-	Insulin
O	-	Oxygen/Opiates
U	-	Uremia

ALTERED SENSORIUM, UNCONSCIOUS, OR SIGNS OF HYPOPERFUSION AND/OR SYSTOLIC BP < 90

A. Routine Medical Care.
B. If adult blood glucose < 80, administer:
   - Oral Glucose for conscious patient with gag reflex intact.
C. Naloxone IN for suspected opiate overdose with respiratory depression consisting of shallow respirations, signs of shock, and/or a patient unable to protect their airway. Consider Spinal Restriction.

Pediatric Patients

A. Routine Pediatric Care.
B. If patient with glucose <60 and/or patient is a known diabetic follow pediatric dosing for medications listed above.

Toxic Exposure (*formerly Poisoning and Overdose*) 1.062 – Adult and Pediatric

Key Considerations: Poisoning and overdose can take several forms and patients may range from mildly ill to very critical. Variances in condition occur due to amount of substance involved, time of incident, type of substance involved, and whether it is an overdose or actual poison.

A. Routine Medical Care.
B. Attempt to identify the substances and method of ingestion.
C. Collect bottles, pills, syringes, MSDS papers or other items that may help identify the substance.
D. For patient suspected of overdosing on narcotics or unknown substances:
   - Ensure ABC's, oxygenation, ventilation.
   - Naloxone intranasal for suspected opiate overdose with respiratory depression consisting of shallow respirations, signs of shock, and/or a patient unable to protect their airway.

Key Considerations: A trauma assessment needs to be completed on all trauma patients to identify and immediately correct life- threatening problems in accordance with PHTLS and ITLS guidelines. Scene times should be kept to a minimum and the patient should be promptly transported to the trauma center.

TREATMENT:

A. Scene Assessment:
   - Assess scene safety and situation.
   - Apply Personal Protection Equipment.
   - Identify mechanism of injury and any special extrication needs.
   - Call for additional resources.
   - Minimal disturbance of crime scene should be considered.

B. Patient Treatment:
   - Assess airway patency utilizing adjuncts as indicated (OPA, NPA). Secure the airway with C- spine precautions.
   - Spinal Restriction as indicated.
   - Assess breathing, apply oxygen as indicated:
     - Oxygen via nasal cannula (2-6 L/min) for awake, oriented, stable patients without evidence of hypoperfusion or mental status changes.
     - High-flow via non-rebreather mask (10-15 L/min) if indicated. Assist ventilations with BVM and 100% oxygen if indicated.
     - Prepare to suction or maintain Spinal Restriction while log rolling patient for vomiting.
     - Airway Management as indicated.
   - Immediately control external bleeding. Refer to Hemorrhage Control SMO.
   - If load and go situation is found, transport immediately and activate the Trauma System per Field Triage Criteria.
   - Pain Management as appropriate.
   - Isopropyl alcohol wipes for nausea and vomiting.
   - See Shock Treatment SMO if SBP < 90 mmHg for patient management.
   - Assess disability: AVPU, pupils and Glasgow Coma Scale.
   - If altered mental status, check blood glucose.
   - Remove clothing to expose injuries. Cover patient with a blanket to avoid hypothermia.
   - Obtain SAMPLE history.
   - Reassess airway patency and maintain good ventilation.
   - Reassess ABC's including patient's color.
   - Perform serial vital signs. Repeat vital signs every 10 minutes.
   - Perform Secondary Assessment.
   - Assess for pelvic instability. If present, apply pelvic binder, commercial or improvised.
   - Splint fractures and bandage wounds, control bleeding. Re-check PMS.
   - Reassessment of critical patients frequently.

Pediatric Patients – Trauma Care

C. Routine Pediatric Care.
D. Refer to the Pediatric Section of the Spinal Restriction SMO for consideration of safe transportation.
E. Consider Abuse/Neglect: Child for injuries that are presented with an inconsistent history or discrepancy between the history of the injury and the physical exam
F. Pediatric Head Trauma:
    - Consider oxygen/ventilation as needed
    - Pulse ox as available
    - Pediatric Glasgow Coma Scale
    - PGCS 13-15 – Mild
        - Control Hemorrhage
    - PGCS 9-12 - Moderate
        - Airway Management
    - PGCS ≤ 8 – Severe
        - Seizure SMO, as appropriate

In-Field Trauma Triage Criteria

Overview: The following patients are those who in the opinion of the American College of Surgeons Committee on Trauma are to have an increased mortality/ morbidity if not treated at a trauma center and should therefore be classified as trauma patients. These patients require transport to the nearest trauma center. The decision to triage to the nearest trauma center or directly to the Level I trauma center remains with Medical Control, as does aeromedical evacuation.

GUIDELINES

I. Physiologic Factors
- A. Adult Trauma Score of 10 or less or Pediatric Score of 8 or less
- B. Airway difficulties requiring intubation or other interventions at the scene
- C. Trauma with altered respiratory rate > 35/ minute or < 12/ minute
- D. Any multiple trauma patient with signs of hypoperfusion

II. Anatomic Factors
- A. Head, face and eye
  1. HEAD INJURY WITH PERSISTENT UNCONSCIOUSNESS OR FOCAL SIGNS (i.e. SEIZURES, POSTURING, UNABLE TO RESPOND TO SIMPLE COMMANDS)
  2. Head injury with LOC or an altered Glasgow Coma Score
  3. Traumatic and chemical eye injuries
  4. Maxillofacial trauma
  5. Penetrating injury to the neck
- B. Chest
  1. TRANSMEDIASTINAL GUNSHOT WOUNDS
  2. Penetrating injury to the chest
  3. Blunt chest trauma (significant pain and/or obvious external signs)
- C. Abdomen
  1. Penetrating injury to the abdomen or groin
  2. Blunt abdominal trauma (significant pain and/or obvious external signs)
- D. Spinal Cord
  1. SPINAL CORD INJURY WITH PARALYSIS
  2. Any suspected spinal cord injury in the absence of neurological deficit
- E. Extremity
  1. Multiple orthopedic injuries (>1 long bone fracture)
  2. Major extremity injury with vascular compromise (blunt and penetrating)
  3. Traumatic amputation proximal to the wrist or ankle

III. Deceleration Injury
- A. High energy dissipation—rapid acceleration with blunt chest or abdominal injury
- B. Falls of 20 feet or greater with the adult patient
- C. Falls of 3 times the height of the pediatric patient

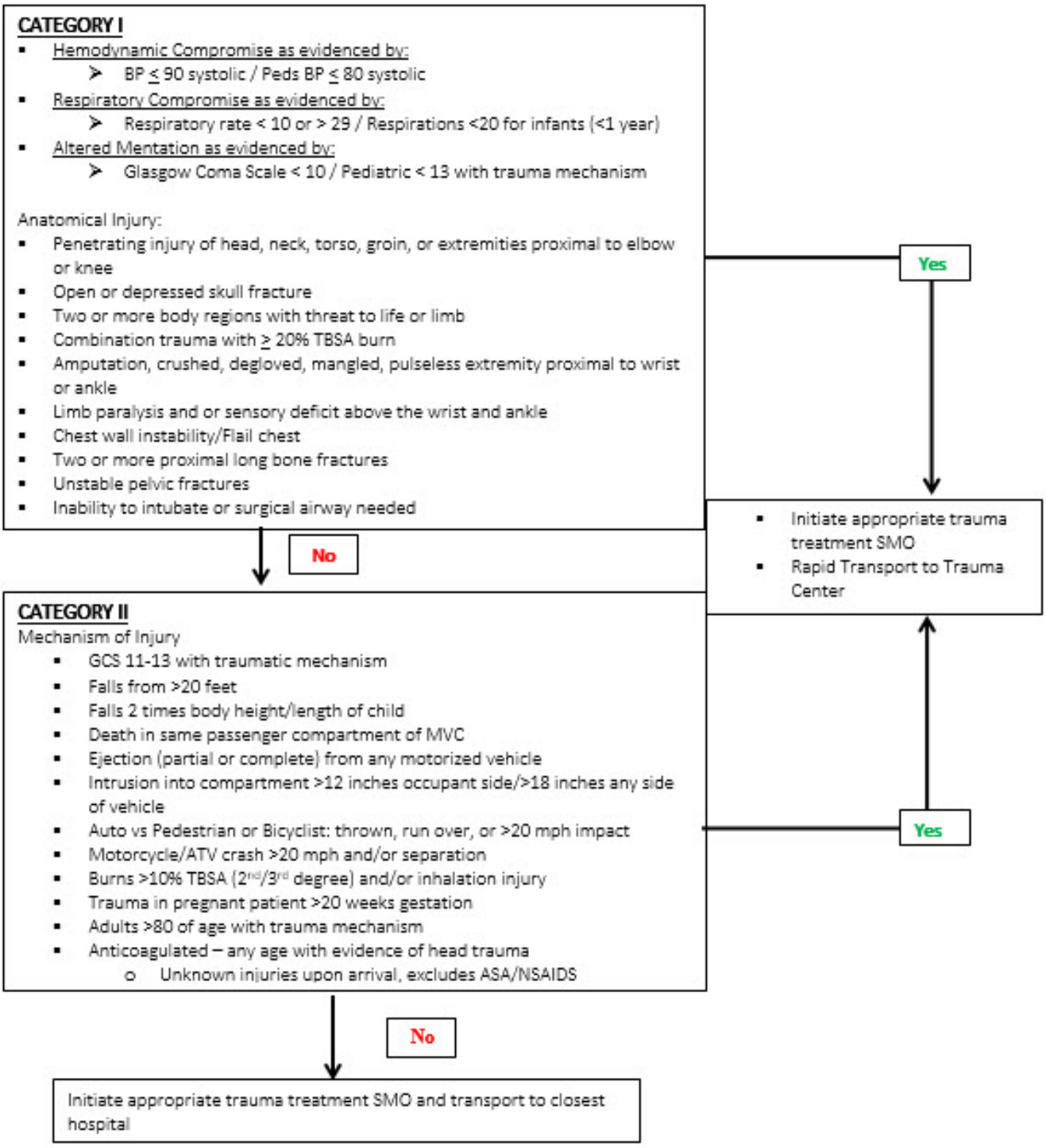
IV. Motor Vehicle Incidents
- A. Extrication time of 20 minutes or more
- B. Passenger space invaded by 12 or more inches
- C. Ejection
- D. Fatality at the scene within the same motor vehicle
- E. Rollover
- F. Child under 12 years struck by car
- G. Child 5 years old or younger involved in any MVA without age appropriate restraint (under age 4 or less than 40 pounds require a car seat)
- H. Motorcycle crash greater than 20 mph and separation of rider from bike

V. Major Burns
- A. 20% total body surface of 2nd and 3rd degree burns
- B. Any burn patient with obvious head, neck or airway involvement

VI. Pediatric Trauma with one or more of the following:
- A. HEAD TRAUMA WITH PERSISTENT ALTERED LEVEL OF CONSCIOUSNESS OBVIOUS CHEST OR ABDOMINAL TRAUMA, EITHER PENETRATING OR BLUNT
- B. Pediatric Trauma Score of 8 or less
- C. Child under 12 struck by car
- D. Child 5 years old or younger involved in any MVA without age appropriate restraint (under age 4 or less than 40 pounds require a car seat)

VII. Maternal Trauma Patients with significant mechanism and/or obvious signs of Trauma
- A. THE PREGNANT PATIENT 20 – 32 WEEKS
- B. The pregnant patient 32 – 40 weeks
- C. Maternal patient who meets any other trauma criteria

VIII. Blunt and Penetrating Traumatic Arrests are at the discretion of Medical Control


CATEGORY I
Hemodynamic Compromise as evidenced by:
BP ≤ 90 systolic / Peds BP ≤ 80 systolic
Respiratory Compromise as evidenced by:
Respiratory rate < 10 or > 29 / Respirations <20 for infants (<1 year)
Altered Mentation as evidenced by:
Glasgow Coma Scale < 10 / Pediatric < 13 with trauma mechanism
Anatomical Injury:
Penetrating injury of head, neck, torso, groin, or extremities proximal to elbow or knee
Open or depressed skull fracture
Two or more body regions with threat to life or limb
Combination trauma with ≥ 20% TBSA burn
Amputation, crushed, degloved, mangled, pulseless extremity proximal to wrist or ankle
Limb paralysis and or sensory deficit above the wrist and ankle
Chest wall instability/Flail chest
Two or more proximal long bone fractures
Unstable pelvic fractures
Inability to intubate or surgical airway needed
Yes
No
Initiate appropriate trauma treatment SMO
Rapid Transport to Trauma Center
CATEGORY II
Mechanism of Injury
GCS 11-13 with traumatic mechanism
Falls from >20 feet
Falls 2 times body height/length of child
Death in same passenger compartment of MVC
Ejection (partial or complete) from any motorized vehicle
Intrusion into compartment >12 inches occupant side/>18 inches any side of vehicle
Auto vs Pedestrian or Bicyclist: thrown, run over, or >20 mph impact
Motorcycle/ATV crash >20 mph and/or separation
Burns >10% TBSA (2nd/3rd degree) and/or inhalation injury
Trauma in pregnant patient >20 weeks gestation
Adults >80 of age with trauma mechanism
Anticoagulated – any age with evidence of head trauma
Unknown injuries upon arrival, excludes ASA/NSAIDS
Yes
No
Initiate appropriate trauma treatment SMO and transport to closest hospital

ADULT GLASGOW COMA SCORE

EYE OPENING	Eyes open ***Spontaneously***	4
	Eyes open in response to ***Voice***	3
	Eyes open in response to ***Pain***	2
	No eye opening response	1
VERBAL RESPONSE	***Oriented*** (e.g., to person, place, time)	5
	Confused, speaks but is disoriented	4
	Inappropriate but comprehensible words	3
	Incomprehensible sounds but no words are spoken	2
	None	1
MOTOR RESPONSE	***Obeys Commands*** to move	6
	Localized Painful stimuli	5
	Withdraws from painful stimulus	4
	Flexion, abnormal *decorticate* posturing	3
	Extension, abnormal *decerebrate* posturing	2
	No movement or posturing	1
TOTAL POSSIBLE SCORE		3 - 15
	Severe Head Injury	≤ 8
	Moderate Head Injury	9 – 12
	Minor Head Injury	13 - 15

ADULT TRAUMA SCORE

The Trauma Score is a numerical grading system for estimating the severity of injury. The score is composed of the Glasgow Coma Scale (reduced to approximately one-third value) and measurements of cardiopulmonary function. Each parameter is given a number (high for normal and low for impaired function). Severity of injury is estimated by summing the numbers. The lowest score is 0, and the highest score is 12.

RESPIRATORY RATE (spontaneous patient-initiated inspirations/ minute)	10 - 29 / minute	4
	greater than 29	3
	6 - 9 minutes	2
	1 - 5 / minute	1
	None	0
SYSTOLIC BLOOD PRESSURE	Greater than 89	4
	76 - 89 mm Hg	3
	50 - 75 mm Hg	2
	1 - 49 mm Hg	1
	No pulse	0
GLASGOW COMA SCALE (see above)	13 – 15	4
	9 – 12	3
	6 – 8	2
	4 – 5	1
	3	0
TOTAL POSSIBLE SCORE		0 – 12

PEDIATRIC GLASGOW COMA SCORE

AREAS OF RESPONSE	>1 year	< 1 year	GCS
EYE OPENING	Spontaneously To *Verbal Command* To *Pain* No eye opening response	Spontaneously To *Shout* To *Pain* No eye opening response	4 3 2 1
MOTOR RESPONSE	*Obeys Commands* to move *Localized Painful* stimuli *Withdraws* from painful stimulus *Flexion,* abnormal *decorticate* posturing *Extension*, abnormal *decerebrate* posturing No movement or posturing	*Obeys Commands* to move *Localized Painful* stimuli *Flexion—normal* *Flexion,* abnormal *decorticate* posturing *Extension*, abnormal *decerebrate* posturing No movement or posturing	6 5 4 3 2 1

VERBAL RESPONSE	> 5 years	< 2 – 5 years	0 - 23 months	
	Oriented and converses	Appropriate words & phrases for age	Smiles, coos, cries appropriately	5
	Disoriented but converses *Inappropriate* words	Inappropriate words Cries and/or screams	Cries Inappropriate crying and/or screaming	4 3
	Incomprehensible	Grunts	Grunts	2
	No response	No response	No response	1
			TOTAL POSSIBLE SCORE	3 - 15

PEDIATRIC TRAUMA SCORE

	VALUES		
COMPONENT	+2	+1	-1
Size	≥ 20 kg	10 – 20 kg	≤ 10 kg
Airway	Normal	Maintainable	Unable to maintain
CNS	Awake	Obtunded	Coma
Systolic BP	≥ 90 mm Hg	50 – 90 mm Hg	≤ 50 mm Hg
Open wound	None	Minor	Major
Skeletal Injuries	None	Closed fracture	Open or multiple fractures

Revised Trauma Score

Glasgow Coma Scale (GCS)	Systolic Blood Pressure (SBP)	Respiratory Rate (RR)	Coded Value
13-15	>89	10-29	**4**
9-12	76-89	>29	**3**
6-8	50-75	6-9	**2**
4-5	1-49	1-5	**1**
3	0	0	**0**

Abdominal/Pelvic Trauma (Blunt, Penetrating/Perforating Injuries)

A. Routine Trauma Care.
B. Evisceration – use moist, bulky dressing.
B. Impaled Object – stabilize, do not remove object unless it blocks airway or CPR.
C. Pelvic Fracture – do not log roll. Stabilize with pelvic splint or improvised methods (such as sheets).

Amputations

A. Routine Trauma Care.
B. Control bleeding.
C. Place body part in plastic bag. Place plastic bag containing body part in a larger bag or container and place in container with ice/ water.
D. Use caution to not freeze body part.

Burns

A. Routine Trauma Care.
B. The first priority is to stop the burning process by removing the patient from the source of the burn or eliminate the source.
C. Thermal burns:
   - Continuously monitor the airway. Examine the mouth and nose for signs of respiratory burns.
   - Remove clothing and jewelry from the affected site.
   - Cover the burn with dry sterile dressing.
   - Protect patient from Hypothermia.
   - Treat for shock
D. Chemical burns:
   - Body Substance Isolation.
   - Remove clothing and jewelry.
   - For dry chemicals brush off all visible chemical prior to beginning the water flush.
   - The site should be flushed with copious amounts of water for 20 minutes.
E. Electrical burns:
   - Scene safety.
   - Treat entrance and exit wounds as thermal burns.
   - Spinal restriction is indicated with serious electrical burns.
   - If the patient is pulseless refer to CPR SMO.
F. Lightning Strike:
   - Immediately check respiratory and circulatory status. If patient is in cardio-pulmonary arrest, follow AHA guidelines for resuscitation including high quality CPR. Lightning injuries may cause prolonged respiratory arrest.
   - Airway Management.
   - Spinal Restriction for victims of musculoskeletal trauma associated with electrocution.
G. Radiation:
   - If the patient is contaminated with radioactive material, they will need decontamination by a HAZ-MAT team specifically trained to scan and decontaminate radioactive material.
   - Non-contaminated patients will present with injuries similar to thermal burns and should be treated according to THERMAL BURN procedures.
   - Exposed victims do not present a hazard to responders unless they have radioactive contamination present.

Chest Injuries

A. Routine Trauma Care.
B. If an open wound is present (sucking chest wound), utilize a commercial chest seal or occlusive dressing sealed on four-sides. If patient deteriorates consider releasing one side (burp) and re-seal as needed.

Conducted Electrical Weapon (TASER):

A. If barbs are deployed to the eye/eyelid, ear, nose, female breast, or genitalia transport the patient for removal. Refer to local police protocols for all other barb removal. If the police are unable to remove the barb transport the patient for removal.
B. Consider Restraints as needed.

Drowning and Near Drowning

A. Routine Trauma Care.
B. Keep the victim warm. If hypothermia is suspected, handle patient very gently. Remove wet clothing and apply warm blanket.

***NOTE**: Because of possible serious delayed reactions, all near drowning patients should be evaluated in the Emergency Department even if they appear to be uninjured at the scene*.

SCUBA Injury

Key Considerations: Any incident while using SCUBA equipment, or breathing in a pressurized environment or altitude chamber, may result in sudden depressurization. Consider: fatigue, vertigo, focal weakness, visual disturbances, speech difficulty, marbled rash, numbness, tingling, confusion, seizure, and/or cardiac arrest.

TREATMENT:

A. Remove SCUBA equipment.
B. Follow treatment above for drowning/near-drowning, as appropriate.
C. Routine Medical Care.
D. Routine Trauma Care, as appropriate.
E. Airway Management as appropriate. Ensure oxygen saturation between 94-99%.
F. Consider ALS Intercept.

Facial/Dental Trauma:

A. See Airway Management, as appropriate.
B. See Ophthalmic Trauma, as appropriate.
C. Dental – placed avulsed tooth in saline. Avoid touching the root.
D. Unstable mandible – transport patient sitting up with emesis basin/suction available (if no suspected spinal injury).
E. Nose/ear avulsion – place recovered tissue in dry, sterile gauze in a plastic bag, on ice, if available. Cover severe ear and nose lacerations with a protective, moist, sterile dressing.
F. Epistaxis – squeeze nose (or have patient do so) for 10-15 minutes continuously.

Head Trauma:

A. Elevate head approximately 15-30 degree unless the patient is hypotensive.
B. Monitor level of consciousness.
C. Monitor for Seizures.

Hemorrhage Control/Wound Packing

A. Routine Trauma Care.
B. For external bleeding use direct pressure, if direct pressure is not effective a tourniquet should be considered.
C. Direct pressure is the primary method of controlling most external bleeding and should be used as soon as possible.
D. Tourniquets
   Consider tourniquets when direct pressure does not control bleeding.
   - Tourniquets may not be practical on proximal extremity locations.
   - Cut away clothing. Apply tourniquets three fingers (2-3 inches) above the injury.
   - Tighten per manufacturers' instructions until hemorrhage stops.
   - Secure tourniquets per manufacturers' recommendations.
   - Note time of tourniquets application (time and date on tourniquet, patients' forehead, or patient's cheek) and provide this information to receiving care provider. Do not remove any tourniquet without authorization from Medical Control.
   - If one tourniquet is not sufficient to control bleeding consider a second tourniquet proximal to the first.
E. Wound Packing:
   - Consider wound packing for life threatening bleed from a penetrating injury to the buttock, pelvis (pelvic girdle), axilla (armpit), or neck. Also, consider for penetrating injuries to extremity with significant bleeding that cannot be controlled with direct pressure or tourniquets.
   - Wound packing is contraindicated for the chest, back, head, abdomen, and dialysis graft bleeding.
   - Wound packing procedure:
     Attempt to control bleeding with direct pressure.
     - Cut away clothing at wound site.
     - Have wound packing supplies on hand – use a roll of plain gauze.
     - Carefully remove any obvious foreign object from the wound (splintered wood, etc.)
     - Apply direct pressure just proximal to the wound to reduce bleeding. With one finger of the other hand push the end of the gauze as deeply into the wound as possible. Continue to feed the gauze deep into the wound in small increments. Do not attempt to feed a large amount of gauze all at once.
     - Continue to pack gauze deeply and tightly in order to apply direct pressure over the source of the bleed. When the packing reaches the level of the skin apply any remaining gauze over the wound to help apply pressure.
     - Hold direct pressure over the wound for at least ten minutes. Do not release this pressure to "check" for bleeding.
     - If possible, wrap with gauze to maintain pressure.
     - Note: this is a very painful procedure. Consider ALS Intercept for Pain Management.
F. Treat for shock.

Musculoskeletal Trauma

A. Routine Trauma Care.
B. Control external bleeding.
C. Manual stabilization - support the joint above and below the injury.
D. Cover open wounds with sterile dressing.
E. Pad to prevent pressure and discomfort.
F. Use caution to not replace protruding bones.
G. Reassess pulses as needed.
H. Assess treat for shock.

Ophthalmic Trauma:

A. General: Transport patient in a seated position unless contraindicated.
B. Chemical Splash/Burn -
    - Thoroughly and continuously irrigate affected eye(s) using copious amounts of saline instilled through IV tubing. Start irrigation as soon as possible and continue throughout transport.
C. Penetrating Injury/Ruptured Globe –
    - Do not removed impaled object; do not irrigate eye.
    - Avoid all pressure on injured eye. Cover with cup or metal/plastic protective patch and cover the uninjured eye.
D. Corneal Abrasions/Foreign Body –
    - Do not wipe eye. Consider irrigation.
    - Shade patients' eyes from light.

Shock/ Internal Bleeding

A. Routine Trauma Care
B. Maintain the patient's body position as flat.
C. Keep patient warm.
D. Cover open wounds with sterile dressings.
E. Reassess airway, breathing, and circulation frequently.
F. Transport as soon as possible.

Pediatric Patients

A. Routine Pediatric Care.
B. Refer to the Pediatric Section of the Spinal Restriction SMO for consideration of safe transportation.
C. Consider Abuse/Neglect: Child for injuries that are presented with an inconsistent history or discrepancy between the history of the injury and the physical exam.
D. Pediatric Head Trauma:
    - Consider oxygen/ventilation as needed
    - Pulse ox as available
    - Pediatric Glasgow Coma Scale
    - PGCS 13-15 – Mild
        - Control Hemorrhage
    - PGCS 9-12 - Moderate
        - Airway Management
    - PGCS ≤ 8 – Severe
        - Seizure SMO, as appropriate

Key Considerations:

A. Communication Barriers:
   - Language Barriers
     - Expressive and/or receptive aphasia
     - Nonverbal
     - Fluency in a different language than the EMS provider
   - Sensory Barriers
     - Visual Impairment
     - Auditory Impairment

B. Assistance Adjuncts:
   - Device examples include, but are not limited to:
     - Extremity prostheses
     - Hearing aids
     - Tracheostomy
     - Central Intravenous Catheters
     - CSF Shunt
     - Gastrostomy Tube (G-Tube or J-Tube)
     - Colostomy or Ileostomy
     - Ureterostomy or Nephrostomy Tube (or Foley Catheter)
   - Service Animals

C. Identify the functional need from the patient, the patient's family, bystanders, medic alert bracelets or documents, or the patient's adjunct assistance devices. Attempt to identify the normal baseline vital signs.

D. The performance of a physical examination should not intentionally be diminished during the assessment although the manner that the exam is performed may need to accommodate the specific needs of the patient.

E. When possible, for patients with communication barriers, it may be desirable to obtain secondary confirmation of pertinent data (e.g., allergies) from the patient's family, interpreters, or available written information.

F. Presence of technology assisted devices, such as ventilators or central intravenous catheter and feeding tube pumps.
   - Consider utilizing patient's medical equipment/supplies for optimal results and appropriate sizing.

G. Use parents/caregivers/home health nurse as a medical resource at home and enroute.

TREATMENT:

TRACHEOSTOMY/Ventilator Dependent Patients

A. Enlist the caregiver whenever possible.
B. Assessment for displaced or obstructed tubes.
C. Assessment for proper ventilation.
D. Assessment for equipment issues such as ventilator malfunction, oxygen depletion, kinked tubing.
E. Assessment for infection.
F. If patient is on a ventilator, disconnect and attempt to oxygenate with bag using tracheostomy adaptor (if present) or mask over trach opening or stoma.
G. If patient is not on a ventilator administer oxygen with bag or mask over trach as needed.
H. Suction as needed, no more than 10 seconds. Insert no more than ¾ length of neck.
I. If inner cannula present request that the caregiver remove and clean with saline.
J. If unable to ventilate cover opening and ventilate with bag and mask over mouth and nose (consider using a small pediatric mask even on adult patients).

FISTULA, SHUNT, OR ARTERIOVENOUS GRAFT (AV SHUNT)

A. Blood pressure should not be taken in an arm with an AV Shunt.
B. IV should not be started in an arm with an AV Shunt.
C. Direct pressure to control bleeding at site.

OTHER SPECIAL NEEDS SITUATIONS

- If possible, consider transporting an individual who is fluent in the patient's language with the patient. If this is not possible, consider the use of the following:
  - Medical translation cards
  - Online translation services
  - Any other translation service utilized by the individual agency
- Any written communication between the patient and the EMS provider becomes part of the medical record, even if it is written on a scrap of paper, and should be retained with the storage and confidentiality policies and procedures that are applicable to the written or electronic patient report.
- Patients with Downs Syndrome, especially children, may have upper cervical instability and may be more prone to spinal cord injury. Consider spinal restriction in any mechanism of injury where there has been significant movement of the neck.
- If a caregiver is present, ask if there is a "best way" to move the patient.
- Service animals are not classified as a pet and should, by law, always be permitted to accompany the patient with the following exceptions:
  - The animal is out of control and the animal's handler does not or cannot take effective action to control it.
  - The animal is not housebroken.
- Service animals are not required to wear a vest or a leash and it is illegal to make a request for special identification or documentation from the animal's partner. EMS providers may only ask the patient if the service animal is required because of a disability and the form of assistance the animal has been trained to perform.
- EMS Providers are not responsible for the care of the service animal. If the patients is incapacitated and cannot personally care for the service animal a decision can be made whether or not to transport the animal with the patient.
- According to legislation in Illinois, any "EMR, EMT, EMT-I, A-EMT, or Paramedic may transport a police/arson dog injured in the line of duty to a veterinary clinic or similar facility if there are no persons requiring medical attention or transport at that time."
- Should a service animal be transported by ambulance insure proper cleaning and decontamination of unit per Body Substance Isolation SMO.

Key Considerations: Indication for spinal restriction includes any patient that experiences a mechanism of injury that creates the potential for spinal injury. Consider the patients' mental status and neuro assessment (LOC, pupils, and ability to move and feel extremities.

PROCEDURE:

Selective Spinal Restriction

A. If any of the following is present or a spine injury is suspected then perform spinal restriction:
   - Any focal deficits noted in the neuro exam.
   - Patient age 65 or greater or less than 5 with a mechanism of injury.
   - Alteration in mental status.
   - Evidence of intoxication:
     - Evidence of intoxication may include: GCS less than 15, slurred speech, dilated pupils, flushed skin, unsteady gate, irregular behavior or presence of paraphernalia.
   - Inability of patient to communicate.
   - Distraction injury: any painful injury that may distract the patient from the pain of a spinal injury:
     - Examples of distracting injuries: long bone fractures, rib fractures, pelvic fractures, abdominal pain, large contusion, avulsion to the face or scalp, partial thickness burns greater than 10% TBSA or full thickness burns or any significantly painful injury.
   - Tenderness, swelling or deformity noted when the spine is palpated.
   - Pain to Range of Motion (ROM):
     - ROM should not be assessed if any one of the above is present.
     - To assess ROM have patient touch chin to chest, look up, and turn head from side to side. If any pain is noted stop this assessment.

B. If none of the above is present, spinal restriction is not required.

Spinal Restriction Techniques

A. Assessment
   - Assess motor and sensory function before and after spinal restriction and regularly during transport.
   - Consider the use of S_PO_2 to monitor respiratory function.

B. Ambulatory patients
   - Alert cooperative patients may be allowed to self-limit movement but a cervical collar is and should be recommended.
   - Apply appropriate sized cervical collar. If the cervical collar does not fit then, use alternate mode of stabilization.
   - Instruct patient to sit on the cot. Secure the patient in position of comfort. Limit the movement of the neck during this process.

C. Non- ambulatory patients
   - Extricate patient as needed by the safest method available while limiting flexion, extension, rotation and distraction of the spine.
   - Tools such as pull sheets, scoop stretchers, KED, vacuum splints and backboards may be used.
   - Place the patient in the best position suited to protect the airway while applying appropriate spinal restriction.
   - If patient is transported on a hard device apply adequate padding.

D. Penetration trauma
   - Patients without spinal pain or neuro deficits do not need spinal restriction.

Pediatric Patients

- Routine Pediatric Care.
- Pediatric patients may not understand why they are being separated from their parent / guardian and are being placed in spinal restriction. Fighting with the pediatric patient may cause more harm to their spine. Consider leaving the child in their uncompromised car seat with added padding. If parent / guardian are available include them in the child's care. This may alleviate the need to force the patient into spinal restriction.
- If child has been removed from the vehicle / car seat consider the use of pediatric restriction devices (or adult restriction with additional padding). If this causes increased agitation, movement and potential harm to the child consider placing the child in a car seat and pad to restrict movement.
- During transport every effort should be made to safely restrain the pediatric patient.

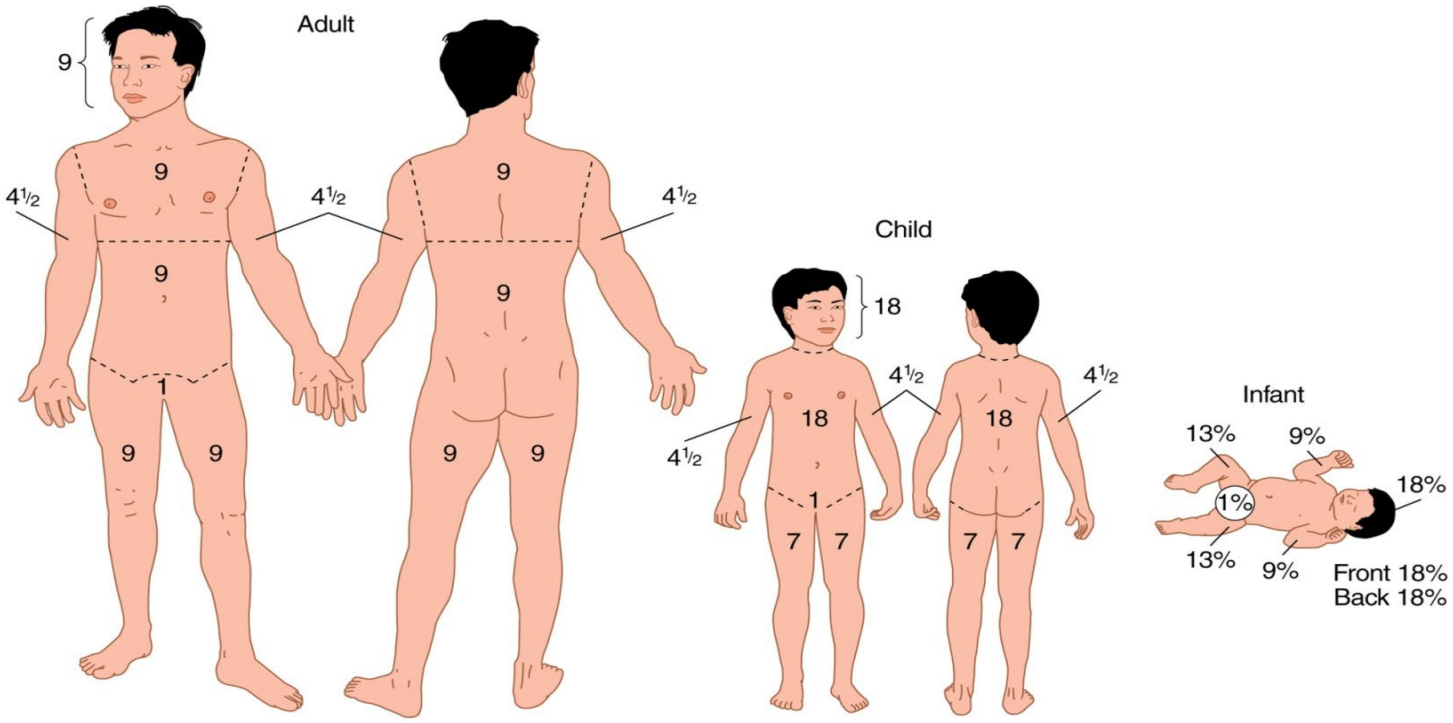
Acceptable methods / tools to achieve spinal restriction. This list is arranged from the least invasive to the most invasive:

1. Fowler's, semi-fowlers or supine positioning on cot with correctly sized cervical collar.
2. Supine position with vacuum splint from head to toe.
3. For pediatric patients, uncompromised child car seat with appropriate padding.
4. Supine position on scoop stretcher, secured with straps and appropriate padding including head blocks.
5. KED (vest type extrication device).
6. Supine position on long backboard, secured with straps and appropriate padding including head blocks.

Helmet Removal Considerations:

1. The decision to remove a helmet should be determined by risk versus benefit. When in doubt, consult with Medical Direction.
2. Some helmets are easily removed. The removal of a full-face helmet may be more difficult.
3. Patients who are wearing full helmets with facial coverings or those which limit assessment should have early consideration for removal. The helmet may need be removed if there is an airway or potential airway issue.
4. If the helmet is loose fitting and would interfere with spinal restriction it should be removed.
5. If removing the helmet other safety equipment, such as shoulder pads, may also need to be removed.
6. If the patient has an intact airway, complaint of neck/spinal pain and/or tenderness, or neurological deficits consider leaving the helmet in place.
7. Helmet removal may require a special tool. Request assistance from coaches, athletic trainers, etc., if possible.

RULE OF NINES:



RULE OF PALMS: To measure the extent of irregular burns, the percentage of burned surface can be estimated by considering the palm of the patient's hand as equal to 1% of the total body surface and then estimating the TBSA burned in reference to the palm.

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Key Considerations: A Primary assessment needs to be completed on all patients to identify and immediately correct any life-threatening problems.

SCENE SIZE-UP/GLOBAL ASSESSMENT

A. Recognize hazards, ensure safety of scene, and secure a safe area for treatment.
B. Apply appropriate universal body/substance isolation precautions.
C. Recognize hazards to patient and protect from further injury.
D. Identify number of patients and resources needed.
E. Call for EMS and /or law enforcement back-up if appropriate.
F. Initiate Incident Command Structure System (ICS), if appropriate.
G. Initiate Triage System, if appropriate.
H. Observe position of patient.
I. Determine mechanism of injury.
J. Plan strategy to protect evidence at potential crime scene.

GENERAL IMPRESSION

A. Check for life-threatening conditions.
B. AVPU (A=alert, V=responds to verbal stimuli, P=responds to painful stimuli, U=unresponsive).
C. Determine chief complaint or mechanism of injury.

AIRWAY (A)

A. Ensure open airway.
B. Protect spine from unnecessary movement in patients at risk for spinal injury.
C. Ensuring airway patency supersedes spinal immobilization.
D. Look and listen for evidence of upper airway problems and potential obstructions:
    - Vomitus
    - Bleeding
    - Loose or missing teeth
    - Dentures
    - Facial trauma
E. Utilize any approved adjuncts as indicated to maintain airway.

BREATHING (B)

A. Look, listen, and feel assessing ventilation and oxygenation.
B. Expose chest and observe chest wall movement, if necessary.
C. Determine approximate rate, depth, and work of breathing.
D. Reassess mental status.
E. Obtain pulse oximetry reading if available.
F. Intervention for inadequate ventilation and/or oxygenation:
    - Pocket mask BVM.
    - Supplementary oxygen.
    - Appropriate airway adjunct (oropharyngeal/ nasal).
    - Advance airway management if indicated after bag-valve- mask ventilation.

CIRCULATION (C)

A. Check for pulse and begin CPR if necessary.
    - Note: defibrillation should not be delayed for CPR; if defibrillator is present and operator is qualified, use it to check patient for a shockable rhythm.
B. Palpate radial pulse if appropriate: absence or presence; quality (strong/weak); rate (slow, normal, or fast); regularity.
C. Control life-threatening hemorrhage with direct pressure.
D. Assess skin for signs of hypoperfusion or hypoxia.
E. Reassess mental status for signs of hypoperfusion.
F. Treat hypoperfusion if appropriate.

LEVEL OF CONSCIOUSNESS & DISABILITIES (D)

A. Determine need for Spinal Restriction.
B. Determine GLASCOW COMA SCALE (GCS) SCORE.

EXPOSE, EXAMINE & EVALUATE (E)

A. In situations with suspected life-threatening trauma mechanism, a rapid head-to-toe assessment should be performed.
B. Expose head, trunk, and extremities.
C. Head to toe for DCAP-BTLS (see Note section of Secondary Assessment SMO).
D. Treat any newly discovered life-threatening wounds as appropriate.
E. Assist patient with medications, if appropriate.

Key Considerations: The secondary assessment is the systematic assessment and complaint focused relevant physical examination of the patient. The secondary assessment may be done concurrently with the patient history and should be performed after:

A. The Primary Assessment and initial treatment and stabilization of life-threatening airway, breathing, and circulation difficulties.
B. Spinal Restriction, as indicated.
C. Routine Trauma Care assessment, as indicated.
D. Investigation of the chief complaint and associate complaints, signs, or symptoms.
E. An initial set of vital signs – pulse, respirations, and blood pressure.
F. Lung sounds.
G. Consider orthostatic vital signs when needed to assess volume status.
H. Pulse oximetry, if indicated.

Begin initial treatment, including oxygen, ventilation, if indicated, hemorrhage control, if needed, and/or basic wound or fracture care.

The above set of assessment/treatments is referred to Routine Medical Care, Routine Pediatric Care, or Routine Trauma Care in the SMOs. This care should be provided to all patients regardless of presenting complaint. The purpose of the focused assessment is to identify problems which, though not immediately life or limb-threatening, could increase patient morbidity and mortality. Exposure of the patient for examination may be reduced or modified as indicated due to environmental factors.

HISTORY

A. Optimally, should be obtained directly from the patient. If language, culture, age-related, disability barriers, or patient condition interferes consult family members, significant others, scene bystanders, or first responders.
B. Check for advance directives, patient alert bracelets, and prescription bottles, as appropriate.
C. Be aware of patients' environment and issues such as domestic violence, child or elder abuse, and/or neglect.
D. Check for patient allergies and medications.
E. Obtain past medical history relevant to patients' chief complaint. Examples are: previous myocardial infarcts, hypertension, diabetes, substance abuse, seizure disorder, and hospital of choice.
F. Have patient prioritize his/her chief complaint if multiple problems are presented.
G. Ascertain recent medical history including hospital admissions, doctor visits, and/or new medications.
H. Question patient about pain – OPQRST – O=onset, P=provoked, Q=quality, R=radiating, S=severity, T=time – plus location and factors that increase or decrease the severity of the pain.
I. Obtain mechanism of injury, if appropriate.

HEAD and FACE

A. Observe and palpate the skull (anterior and posterior) and face for DCAP-BTLS.
B. Check eyes for: equality, responsiveness of pupils, movement and size of pupils, foreign bodies, discoloration, contact lenses, and/or prosthetic eyes.
C. Check nose and ears for foreign bodies, fluid, and/or blood.
D. Recheck mouth for potential airway obstructions (swelling, dentures, bleeding, loose or avulsed teeth, vomitus, malocclusion, absent gag reflex) and odors, alter voice or speech patterns, and evidence of dehydration.

NECK

- Observe and palpate for DCAP-BTLS, jugular vein distention, use of neck muscles for respiration, tracheal tugging, shift or deviation, stoma, and medical information medallions.

CHEST

A. Observe and palpate for DCAP-BTLS, scars, implanted devices (AICD or pacemakers), medication patches, chest wall movement, asymmetry, and accessory muscle use.
B. Have patient take a deep breath, if possible, and observe and palpate for signs of discomfort, asymmetry, and air leak from any wound.

ABDOMEN

A. Observe and palpate for DCAP-BTLS, scars, diaphragmatic breathing, and distention.
B. Palpation should occur in all four quadrants taking special note of tenderness, masses, and rigidity.

PELVIS/GENITO-URINARY

A. Observe and palpate for DCAP-BTLS, asymmetry, sacral edema, and, as indicated, for incontinence, priapism, blood at urinary meatus, or presence of any other abnormalities.
B. Palpate and gently compress lateral pelvic rims and symphysis pubis for tenderness, crepitus, or instability.
C. Palpate for bilateral femoral pulses.

SHOULDERS and UPPER EXTREMITIES

A. Observe and palpate for DCAP-BTLS, asymmetry, skin color, capillary refill, edema, medical information bracelets, and equality of distal pulses.
B. Assess sensory and motor function, as indicated.

LOWER EXTREMITIES

A. Observe and palpate for DCAP-BTLS, asymmetry, skin color, capillary refill, edema, and equality of distal pulses.
B. Assess sensory and motor function, as indicated.

BACK

- Observe and palpate for DCAP-BTLS, asymmetry, and sacral edema.

Resources:

A. Reassess vital signs, particularly in critical or rapidly-changing patients. Changes and trends observed are essential data to be documented and communicated to the receiving facility.
B. DCAP-BTLS is mnemonic for:
Deformity
Contusion/Crepitus
Abrasion
Puncture
Bruising/Bleeding
Tenderness
Laceration
Swelling

REGION I EMERGENCY MEDICAL SERVICES

PREHOSPITAL FORMULARY
For
Emergency Medical Responders

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Pharmacology EMR Only

Adult Patients

GENERIC NAME	INDICATIONS	CONTRAINDICATIONS	Route	Dose
Albuterol Sulfate	Shortness of Breath with bronchoconstriction / wheezing, Allergic Reaction, Hyperkalemia	Caution in tachycardia patients with severe cardiac disease	Nebulizer with 8 lpm O2, inline CPAP	2.5 mg (in 3 ml) may repeat if needed off-line
Aspirin chewable tablets	Chest Pain suggestive of ACS	Recent GI bleed, Allergy, Bleeding Disorders	PO Chewed	324 mg (4 - 81 mg) off-line
Epi Auto-Injector (Adrenalin)	Anaphylaxis / allergic reaction bronchoconstriction / wheezing refractory to neb	Caution in patients with severe cardiac disease	IM	0.3 mg off-line Anaphylaxis on-line allergic reaction
Naloxone (Narcan)	Opioid overdose with respiratory depression	Caution with narcotic-dependent patients who may experience withdrawal syndrome	MAD	2 mg (in 2 ml) MAD is preferred route 1/2 in each nare may repeat X 1 dose off-line
Oral Glucose	Hypoglycemia	Patient who is not able to follow commands	PO	15 grams off-line

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Pharmacology EMR Only

Pediatric Patients

GENERIC NAME	INDICATIONS	CONTRAINDICATIONS	Route	Dose
Albuterol Sulfate	Shortness of Breath with bronchoconstriction / wheezing, Allergic Reaction, Hyperkalemia	Caution in tachycardia patients with severe cardiac disease	Nebulizer with 8 lpm O_2	2.5 mg (in 3 ml) may repeat if needed off-line Full dose make not be appropriate / needed in smaller patients, monitor patient and discontinue if extreme tachycardia or patient improved and additional medication not required
Aspirin chewable tablets	NA not used in pediatric patients			NA not used in pediatric patients
Epi Auto-Injector (Adrenalin)	Anaphylaxis / allergic reaction bronchoconstriction / wheezing refractory to neb	Caution in patients with severe cardiac disease	IM	Epi Jr. 0.15 for patient 15 to 30 Kg (33-66 pounds) Epi 0.3 for patient greater than 30 kg (66 pounds) under 15 kg (33 pounds) call Medical Control off-line Anaphylaxis on-line allergic reaction
Naloxone (Narcan)	Opioid overdose with respiratory depression	Caution with narcotic-dependent patients who may experience withdrawal syndrome	MAD	1 mg for patients 10-20 kg (22-44 pounds)2 mg for patients over 20 kg (44 pounds) 1/2 in each nareMay repeat X 1 doseoff-line
Oral Glucose	Hypoglycemia	Patient who is not able to follow commands	PO	15 grams off-line

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Albuterol Sulfate	(Proventil, Ventolin)
Classification:	Bronchodilator
Actions:	Relaxes bronchial smooth muscle by stimulating beta$_2$ receptors resulting in bronchodilation.
Indications:	• Acute asthma/emphysema • Allergic reactions • COPD/bronchitis • Bronchospasm • Known or suspected patients with hyperkalemia
Contraindications include but not limited to:	○ Symptomatic tachycardia (>150 BPM) ○ Chest pressure ○ Prior hypersensitivity reaction to Albuterol
Adverse effects include but not limited to :	➢ Tachycardia ➢ Hypertension ➢ Palpitations ➢ Dizziness ➢ Dysrhythmias ➢ Restlessness ➢ Nausea
Adult Administration: **Packaging Information:** (2.5 mg/3 ml) Ampule/Nebulizer	Via nebulizer – 2.5 mg - repeat PRN until relief of symptoms
Pediatric Administration:	Via nebulizer – up to 2.5 mg Call Medical Control for repeat dosing
Onset:	Within 5 minutes
Duration:	3-4 hours
Pregnancy Safety:	Category C
Precautions and Comments: Pharmacology Chart **Used in SMO:**	Monitor blood pressure and heart rate closely. Use with caution in patients with: • Heart disease • Hypertension • Tachy-dysrhythmias • Patients being treated with MAO inhibitors and tricyclics may experience tachycardia and hypertension • Patients who are hypersensitive to sympathomimetics

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Aspirin	(ASA)
Classification:	Antiplatelet, Analgesic, Antipyretic, Anti-inflammatory
Actions:	Inhibition of platelet aggregation and platelet synthesis. Reduction of risk of death in patients with a history of myocardial infarction or unstable angina.
Indications:	Chest pain with suspected myocardial ischemia
Contraindications include but not limited to:	○ Allergy to ASA/NSAID ○ Peptic ulcer disease ○ Hypersensitivity to salicylates
Adverse effects include but not limited to:	➢ Nausea, GI upset ➢ Hepatotoxicity ➢ Occult blood loss ➢ Anaphylaxis
Adult Administration: **Packaging Information:** (81 mg) Chewable Tablet	324 mg / 4 tablets
Pediatric Administration:	Not recommended
Onset:	30-60 minutes
Duration:	4-6 hours
Pregnancy Safety:	Category D in the third trimester: use ONLY if benefit to mother justifies the risk to the fetus.
Precautions and Comments: Pharmacology Chart **Used in SMO:** Chest Pain of Suspected Cardiac Origin	Patients who have already taken Aspirin today (such as 81 mg daily dose) can still be administered Aspirin. Consider Aspirin early in the appropriate intervention as it has been shown to improve mortality.

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Epinephrine Injector	Adrenalin, Epinephrine Hydrochloride
Classification:	Sympathomimetic agent (Catecholamine)
Actions:	Acts directly on Alpha and Beta receptors of the SNS. Beta effect is more profound than Alpha effects. Effects include: • Increased heart rate (chronotropy) • Increased cardiac contractile force (inotropy) • Increased electrical activity within myocardium (dromotropy) • Increased systemic vascular resistance • Increased blood pressure • Increased bronchial smooth muscle dilation
Indications:	• Allergic Reaction o Shortness of breath (wheezing, hoarseness, other abnormal breath sounds) o Itching/hives that are severe and rapidly progressing o Oral swelling/laryngospasm/difficulty swallowing o Hypotension/unresponsiveness o Patients with an exposure to known allergen with progressively worsening symptoms (i.e., hives) • Severe Asthma
Contraindications:	o None when indicated
Adverse effects include but not limited to:	➢ Hypertension-tachycardia ➢ Tremor, weakness ➢ Pallor, sweating, nausea, vomiting ➢ Nervousness, anxiety ➢ Increases myocardial oxygen demand and potentially increases myocardial ischemia
Adult Administration: **Packaging Information:** Epinephrine (0.3 mg/0.3 ml) Epinephrine (0.15 mg/0.3 ml)	Patients over 30 kg (66 pounds): Epinephrine (Adult dose) 0.3 mg (0.3 mL, 1:1 ml) IM – lateral high thigh is preferred. May repeat in 10 minutes if patient condition warrants.
Pediatric Administration:	Patient 15-30 kg (33-66 pounds): Epinephrine (Pediatric dose) 0.15 mg (0.3 mL, 1:2 ml) – lateral high thigh is preferred. May repeat in 10 minutes if patient condition warrants.
Onset:	5-10 minutes
Duration:	20 minutes
Pregnancy Safety:	Category C
Precautions and Comments: Pharmacology Chart **Used in SMO:** Anaphylaxis and Allergic Reaction	Use with caution in elderly or pregnant patients, but don't withhold if patient has serious signs or symptoms (i.e., airway compromise, severe SOB, profound hypotension)

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Naloxone Hydrochloride	Narcan
Classification:	Opioid antagonist
Actions:	Reverses the effects of narcotics by competing for opiate receptor sites in the central nervous system.
Indications:	• Narcotic agonist - Morphine - Heroin - Hydromorphone - Methadone - Meperidine - Paregoric - Fentanyl - Oxycodone - Codeine • Narcotic agonist/antagonist - Butrophanol - Pentazocine - Nalbuphine • Decreased level of consciousness • Coma of unknown origin
Contraindications include but not limited to:	○ Use caution with narcotic-dependent patients who may experience withdrawal syndrome ○ Avoid use in meperidine-induced seizures
Adverse effects include but not limited to:	➢ Hypertension ➢ Tremors ➢ Nausea/vomiting ➢ Dysrhythmias ➢ Diaphoresis ➢ Withdrawal (opiates) ➢ Flash pulmonary edema
Adult Administration:	See Pharmacology Chart
Pediatric Administration:	See Pharmacology Chart
Onset:	Within 2 minutes
Duration:	20-30 minutes
Pregnancy Safety:	Category B
Precautions and Comments: Pharmacology Chart **Used in SMO:** Altered Mental Status Intranasal Medication/MAD Device Toxic Exposure (formerly Poisoning and Overdose)	Check and remove any transdermal systemic opioid patch. The goal of Naloxone administration is to improve respiratory drive, not to return the patient to their full mental capacity. High dose/rapid reversal of narcotic effects may lead to combative behavior, possible severe withdrawal, and other adverse drug reactions. Consider other causes/ potency of opiate agonist when evaluating need for repeat dosing. Observe for: seizures, hypertension, chest pain, and/or severe headache.

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Oral Glucose	
Classification:	Monosaccharide carbohydrate
Actions:	After absorption from GI tract, glucose is distributed in the tissues and provides a rapid increase in circulating blood sugar.
Indications:	Suspected or known hypoglycemia
Contraindications:	Patient who is not able to follow commands
Adverse effects include but not limited to:	• Nausea/vomiting • Aspiration • Hyperglycemia
Adult Administration:	15 GM/37.5 GM tube Alternative: Glucose tablets – 15-20 GM PO. Recheck blood sugar in 15 minutes. If BS still below 80 mg/dL and/or exhibiting signs/symptoms of hypoglycemia another 15-20 GM may be administered.
Pediatric Administration:	Up to 15 GM as tolerated
Onset:	5-10 minutes
Duration:	Variable
Pregnancy Safety:	Category A
Precautions and Comments: Pharmacology Chart **Used in SMO:** Altered Mental Status Stroke	Not a substitute for IV dextrose in extreme cases of hypoglycemia (blood sugar <40) unless IV access is unobtainable. Alternative: Glucose tablets – tablets are not recommended for patients who cannot protect their airway or of an appropriate age to swallow a tablet.

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Review of Standing Medical Orders

Ongoing review of Region I EMS Standing Medical Orders is required to remain current with interventions known to be effective in prehospital care and should be the responsibility of each provider in Region I. It is expected that each provider maintain a functional knowledge of the Standing Medical Orders and apply them appropriately during all patient interactions.

Updates and new Standing Medical Orders are noted with either the "Original SMO Date" or "Last Revision" within each SMO. The most current version and implementation date of the entire document is noted in the footer on each page. Distribution and education regarding any updates remains the purview of each Region I EMS Resource Hospital.

The Standing Medical Orders have been developed and approved through a collaborative process involving the Medical Directors listed below:

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